

# Curriculum on Laudato Si'

FOR SECONDARY EDUCATION



Inspiring students as they explore Pope Francis'  
“On Care For Our Common Home”

ENVIROMENTAL SCIENCE | THEOLOGY I & II | HUMANITIES | SOCIAL STUDIES

An international project of the Carmelite NGO



## CURIA GENERALIZIA DEI CARMELITANI

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Within this context, Pope Francis invites us to give special attention to the creation of God assuming this duty through small daily actions. Likewise, he exhorts us to feel that we need each other, and that we have a responsibility for others and for the world we live in.

In order to achieve this goal, since early 2015, the Executive Committee of the International Carmelite NGO of the Carmelite Family has been working hard to develop an annual formation Program/Curriculum on environmental issues and the care of creation. The recipients of this work are students in our secondary schools that the Order carries out in a variety of realities, and in different parts of the world.

It is important to underline that members of the faculty of our own schools have contributed to the development of this program, mainly teachers from "Salpointe Catholic High School" in Tucson, Arizona, USA; from Colegio "Nuestra Señora del Carmen" in Lima, Peru; from "SMAK Katolik Santo Albertus" in Malang, Indonesia; and "Our Lady of Mount Carmel" in New Orleans, Louisiana, USA.

The curriculum offers a progressive and experiential learning design, so that the students, guided by the environmental sciences, the Word of God and the richness of the Carmelite spirituality, will be able to integrate into their lives a comprehensive ecological awareness of responsible care of the earth, unique home for everyone.

It's really a material that we welcome with great joy and hope. We are sure that it will be of great benefit to both teachers and students in our Carmelite schools all around the world.

*Raul Maravi, O. Carm*

P. Raul Maraví Cabrera, O. Carm

Consiliarius Generalis



## TABLE OF CONTENTS

**Environmental Science** ..... Grades 11, 12

**Theology I** ..... Grade 9

- Laudato Si', Units I, II, III
- The Revelation Of Jesus In Scripture
- Laudato Si' And The Corporal Works Of Mercy

**Theology II** ..... Grades 11, 12

- Living As A Disciple Of Jesus Christ In Society
- Sacraments

**Humanities** ..... Grades 10,11, 12

- American Literature
- Romanticism

**Humanities** ..... Grades 10,11, 12

- World Literature
- Philosophy

**Humanities** ..... Grades 10,11, 12

- World Literature
- Art
- Philosophy

**Social Studies**

- World History..... Grades 9, 10
- U.S. Government ..... Grades 11, 12



# Lesson 1 ENVIRONMENTAL SCIENCE

**Class** Environmental Science

**Grade Level** 11, 12

**Unit of Study** Economics of Environmental Issues

**Background Knowledge** Students have developed an understanding of basic ecological components and vocabulary. They have studied ecosystems and biogeochemical cycles.

**Learning Objective** Students will identify pathways that everyday products take from production to consumption to disposal.

**Educational Standards** Next Generation Science Standards (NGSS)

HS-LS2-7. Design, evaluate and refine a solution for reducing impacts of human activities on the environment and biodiversity.

## Specific Encyclical Theme

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)

- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

**Encyclical Citations 47, 93, 106, 44**

**Lesson/Activity** The Story of Stuff

**Opening Prayer**

Lord, make me an instrument of Your peace. Where there is hatred, let me sow love; where there is injury, pardon; where there is doubt, faith; where there is despair, hope; where there is darkness, light; where there is sadness, joy.

O, Divine Master, grant that I may not so much seek to be consoled as to console; to be understood as to understand; to be loved as to love. For it is in giving that we

receive; it is in pardoning that we are pardoned; it is in dying that we are born again to eternal life.

### **Bell Work/Warm Up**

#### **What products have you purchased in the last two weeks?**

Students should reflect on the question and then record their response individually. Next, as a table they should share what they have written. Lastly, the instructor should ask for some to share responses with the whole group.

### **Engage**

- Place a container on each desk. Each container should contain a random assortment of ordinary items (paperclip, pencil, pen, ruler, rubber band, water bottle, etc.).
- Ask each student to pick one item. Next ask the student to think about all of the energy and materials that went into producing this product from start to finish. The student should produce a flow chart showing this process. *See page 5.*
- A class discussion should ensue where we flesh out some of the ideas. Typically students neglect aspects of mining raw materials, energy inputs into transporting goods, use of fossil fuels and certainly, energy into disposing of the item.

### **Explore**

Have students watch the video “The Story of Stuff.” (21 minutes) [storyofstuff.org/movies/story-of-stuff](http://storyofstuff.org/movies/story-of-stuff). Have table discussions of reactions to the video and ask students to explore the following:

- What surprised or upset you about the video?



- Does everyone on Earth contribute to this problem equally? Support your answer.
- Where do you think the Catholic church stands on issues presented by the video?
- Their responses will then lead into a class discussion. Instructor should emphasize the collection of goods in developed countries vs. developing countries, and connections to the message of the encyclical.

### Evaluate

Exit Ticket (students will be given a couple of minutes before the bell to reply to this last question).

**Go back to your response for the bell work. Which of these products will you still be using in six months? Does this seem problematic to you? Explain. Action.**

List all of the energy and resources that will go into making, using and disposing of your item.

**Item**

**Production**

**Transport/Retail**

**Disposal/Waste**



## **Lesson 2 ENVIRONMENTAL SCIENCE**

**Class** Environmental Science

**Grade Level** 11, 12

**Unit of Study** Introduction to Environmental Science

**Background Knowledge** Students have been introduced to basic terms (sustainability, ecology, etc.)

**Learning Objective** Students will explore the ramifications of unmanaged, shared resources. They will develop a management plan and measure its effects.

**Educational Standards** Next Generation Science Standards (NGSS) HS-ESS3-3. Create a computational simulation to illustrate relationships among management of natural resources, sustainability of human populations and biodiversity.

### **Specific Encyclical Theme**

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)

- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

### **Encyclical Citations 23, 138-139, 157**

#### **Lesson/Activity Tragedy of the Commons**

##### **Opening Prayer**

Heavenly Father, I am your humble servant,

I come before you today in need of hope.

There are times when I feel helpless,

There are times when I feel weak.

I pray for hope.

I need hope for a better future.  
I need hope for a better life.  
I need hope for love and kindness.  
Some say that the sky is at its  
darkest just before the light.  
I pray that this is true, for all seems dark.  
I need your light, Lord, in every way.  
I pray to be filled with your light from  
head to toe. To bask in your glory.  
To know that all is right in the world,  
as you have planned, and as you want it to be.  
Help me to walk in your light, and live  
my life in faith and glory.  
In your name I pray, Amen.

### **Bell Work/Warm-up**

#### **What are some examples of resources overused by humans?**

Students should first reflect on this question and then record their response individually. Next, as a table they should share what they have written. Lastly, the instructor should ask for some to share responses with the whole group.

### **Engage**

Students will follow the procedures outlined on the attached document, *see pages 11-18*. The first part of the lab will be used as the “engage” part of the lesson.

Students will have an opportunity to “fish” as many Starbursts or other individually wrapped candy of your choosing out of a paper sandwich bag. Each bag should contain at least 16 candies. Each student has 30 seconds to remove as many “fish” (candies) as they want from the “pond” (paper bag). They must complete this without communicating. Typically the fish are depleted by the second or third person. Occasionally groups make it to the second or third round, but rarely do they maintain sustainable populations. It is important to know that it is possible to fish in a sustainable way. Follow with a discussion about how everyone in the group is connected. Focus on and emphasize why the groups failed (greed, uncertainty, lack of communication, etc.).

### Explore

During part two of the lab students develop a plan to maintain a steady population. The common pond remains in play in a bag with 16 candies but a private pond with four candies that only one person is in charge of is added. The idea of carrying capacity is also added to the activity. Students are typically much more successful when they are allowed to communicate, have a private pond and have already experienced failure in the first part of the lab. Upon completion, we discuss which groups had success maintaining populations and what their strategy was.

### Evaluate

Students answer the questions at the end of the lab sheet. Then we have a discussion about the questions and how this connects to excerpts from the encyclical (the last question). I push students toward the understanding that the Church encourages us to be stewards of the land and its resources.

Upon completing the lab I like to highlight a real example of Tragedy of the Commons by showing students this 25-minute video [pbs.org/video/2324025884](https://www.pbs.org/video/2324025884) about overfishing cod in the Atlantic Ocean. We follow with a discussion of how the video connects to the activity. I also like to have students complete some independent research on other examples of Tragedy of the Commons.

Name \_\_\_\_\_

Period \_\_\_\_\_ Date \_\_\_\_\_

## Tragedy of the Commons

By Tori Haidinger, Teacher and Dean, St. Margaret's Episcopal School  
(Modified with permission from Barry Cobb and John Madden)

### Procedure

#### Part 1

Divide yourselves into groups of four. Imagine this scenario. Each person represents the head of a starving family, which requires food. The only food source for these four families is a small fishing hole that can accommodate an unknown quantity of fish. Fortunately, after each round of fishing by the four family heads, each remaining fish is able to spontaneously reproduce. Each person is allowed to take as many or few fish as they want, but if they take only one fish, their family will starve.

In this simulation, our pond is a brown bag, and our fish are Starbursts. Fish are caught using plastic spoons. Each fishing round will last for one minute. You should rotate your fishing order every round so that everyone has a chance to go first. The simulation will continue for three rounds. It should not be possible to tell how many fish have been taken before you fish. No talking is allowed during this part.

### Data

All data should be recorded in the following tables.

#### Part 1 Commons pond



Round #

# of fish

at beginning of round

# of fish taken by 1st fisher

# of fish taken by 2nd fisher

# of fish taken by 3rd fisher

# of fish taken by 4th

Total fish left at end of round

1

2

Total

### Questions

- What happened to the common resource in Part 1? Why?
- Explain the rationale for your fishing technique in this part.
- What factors lead to uncertainty in this round?

### Procedure

Part 2

In this part, you will have access to two ponds, one common and one private. The rules for the common pond are the same as before. However, talking and strategizing are allowed in this part. The paper bag will be removed so that you will know exactly how many fish are in the ponds at all times and how quickly the fish will reproduce. The carrying capacity for the common ponds is 16 and for the private ponds is four. You must remove at least one fish from each pond each round. As before, you may catch as many fish as you would like from both ponds during each round.

## Data

Part 2 Commons pond

Round #

# of fish

at beginning of round

# of fish taken by 1st fisher

# of fish taken by 2nd fisher

# of fish taken by 3rd fisher

# of fish taken by 4th

Total fish left at end of round

1

2

3

Total

Part II: Private pond Round #

# of fish at beginning of round

# fish taken this round

# of fish at the end of round

1

2

3

Total

### Questions

- Did you get different results for the pond in Part 2? Why?
- Explain the rationale for your fishing technique in this part.
- If you cooperated with other fishers, what was the result of that cooperation?
- Did you use different fishing strategies in the common pond and the private pond?
- Why does common usage lead to exploitation?
- What would be the ideal way to manage the common pond?

- How would this simulation have been different if you didn't know the students in your group?
- What are the strategies that help to prevent the "tragedy of the commons"?
- If a new student had joined your group in the middle of Part 2, how would that have affected your strategy and the use of the resource?
- Why is the private pond easier to manage for long-term success?

**Read the following excerpt and discuss with your group where you think it is from:**

“Ecology studies the relationship between living organisms and the environment in which they develop. This necessarily entails reflection and debate about the conditions required for the life and survival of society, and the honesty needed to question certain models of development, production and consumption. It cannot be emphasized enough how everything is interconnected. Time and space are not independent of one another, and not even atoms or subatomic particles can be considered in isolation. Just as the different aspects of the planet – physical, chemical and biological – are interrelated, so too living species are part of a network which we will never fully explore and understand. A good part of our genetic code is shared by many living beings. It follows that the fragmentation of knowledge and the isolation of bits of information can actually become a form of ignorance, unless they are integrated into a broader vision of reality.

When we speak of the “environment,” what we really mean is a relationship existing between nature and the society which lives in it. Nature cannot be regarded as something separate from ourselves or as a mere setting in which we live. We are part of nature, included in it and thus in constant interaction with it. Recognizing the reasons why a given area is polluted requires a study of the workings of society, its economy, its behavior patterns, and the ways it grasps reality. Given the scale of change, it is no longer possible to find a specific, discrete answer for each part of the problem. It is essential to seek comprehensive solutions which consider the interactions within natural systems themselves and with social systems. We are faced not with two separate crises,

one environmental and the other social, but rather with one complex crisis which is both social and environmental. Strategies for a solution demand an integrated approach to combating poverty, restoring dignity to the excluded, and at the same time protecting nature.”

## Lesson 3 ENVIRONMENTAL SCIENCE

**Class** Environmental Science

**Grade Level** 11, 12

**Unit of Study** Introduction to Environmental Science

**Background Knowledge** This activity is used early in the course to expose students to the concept of sustainability.

**Learning Objective** Students will create a working definition of sustainability that encapsulates its complexities.

**Educational Standards** Next Generation Science Standards

(NGSS) HS-LS2-2. Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales

### Specific Encyclical Theme

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures



- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

### **Encyclical Citations 22, 57, 109, 167**

**Lesson/Activity** What Is Sustainability? (adapted from UNC-Chapel Hill's Environmental Resource Department, *see pages 23-33*)

### **Opening Prayer**

Mother of Perpetual Help, today we face so many difficulties. Your picture tells us so much about you. It reminds us to reach out and help those in need. Help us understand that our lives belong to others as much as they belong to us.

Mary, Model of Christian love, we know we cannot heal every ill or solve every problem. But with God's grace, we intend to do what we can. May we be true witnesses to the world that love for one another really matters. May our daily actions proclaim how fully our lives are modeled after yours, Mother of Perpetual Help.

### **Bell Work/Warm-up**

## **What is sustainability?**

Students should first reflect on the question and then record their response individually. Next, as a table they should share what they have written. The instructor should ask for some to share responses with the whole group. Introduce the definition as “meeting the needs of our present generation without compromising future generations to meet their needs.” A discussion of needs vs. desire usually follows.

### **Engage**

The lesson begins with modeling the process of determining the sustainability of commuting to school. This example works well for us, as the majority of our upperclassmen drive themselves to school. We analyze the sustainability of driving to school by completing a Venn diagram as a class on the board with the three categories labeled Economy, Environment, and Society. We brainstorm positives (written in black) and negatives (written in red) of the activity and place them in the appropriate circle or overlapping portion of circles. The next step is to introduce the idea of sustainability as a scale. Very rarely is an activity completely sustainable or unsustainable—it is not black and white. Some activities are more sustainable than others. We close our discussion by commenting on where driving to school falls on the sustainability scale taking into account all of the aspects discussed as a class.

### **Explore**

The next step is for small groups (three to four students) to choose another activity from the following list and complete the same process that we did as a class. Each group is given a whiteboard and markers. Upon completion they present to the class.

## Activities to Evaluate during Think-Pair-Share #2

<b>Individual activities</b> <ul style="list-style-type: none"><li>-Owning/using a cell phone</li><li>-Driving above the speed limit</li><li>-Eating at McDonald's for breakfast</li><li>-Drinking bottled water at lunch</li><li>-Shopping at the Saturday farmer's market</li></ul>	<b>School activities</b> <ul style="list-style-type: none"><li>- Hosting a Friday night high school football game</li><li>- Going on a class field trip to the zoo</li><li>- Buying recycled paper for copiers</li><li>- Selling soft drinks in vending machines</li><li>- Allowing students to drive off-campus for lunch</li></ul>
<b>Government actions</b> <ul style="list-style-type: none"><li>- Offering curbside trash pick-up</li><li>- Raising the fee to ride public transportation</li><li>- Building an energy efficient courthouse</li><li>- Building sidewalks to the local high school from neighboring suburbs</li></ul>	<b>Business products/services</b> <ul style="list-style-type: none"><li>- Making computers</li><li>- Producing organic cotton T-shirts</li><li>- Building a 5,000 sq ft. house in the suburbs</li><li>- Building a restaurant on a vacant lot</li><li>- Home delivery of a daily newspaper</li><li>- Raising pasture-fed beef to sell to consumers</li></ul>

### Evaluate

Ask students to look at their daily activities and determine if they are sustainable. For activities they consider unsustainable, ask them to consider how they may alter or eliminate them. Ask them to consider the lessons of the Church and how happiness does not come from possessions but from a deeper connection to ourselves and others.



## What is Sustainability?

### Overview

In this activity, students will learn about the three components of sustainability and will evaluate the sustainability of an activity such as driving to school. In addition, students will be asked to consider how an unsustainable activity can be altered to become more sustainable. This activity was adapted from *Facing the Future: People and the Planet*, 2006 ([www.facingthefuture.org/Members/documents/6.Is.it.Sustainable.pdf](http://www.facingthefuture.org/Members/documents/6.Is.it.Sustainable.pdf))

### Alignment to North Carolina Essential Standards for Biology

Bio.2.2: Understand the impact of human activities on the environment (one generation affects the next).

### Alignment to North Carolina Essential Standards for Earth/Environmental Science

EEn.2.8: Evaluate human behaviors in terms of how likely they are to ensure the ability to live sustainably on Earth.

### Essential Questions

- What is sustainability?
- How is the sustainability of an activity determined?
- How can an unsustainable activity be altered to become more sustainable?

### Materials

- *Is it Sustainable?* activity from *Facing the Future: People and the Planet*, 2006, provided for teacher reference
- *Is it Sustainable?* Student Worksheet, one copy for each student, provided
- Sustainability Venn diagram, provided
- Chart of activities for Think-Pair-Share #2, provided
- Small pink and green post-it notes (or you may use red and green markers)
- Tape

### Teacher Preparation

You may want to review the original lesson, *Is it Sustainable?*, from which this activity has been adapted for additional details.

### Student Preparation

This activity could be preceded by a discussion of “carbon footprints” and how carbon dioxide emissions reduction strategies can benefit the environment, the economy, and society and thus would be considered sustainable.

### Duration

30 minutes

### Procedure

1. Either individually or in partners, have students brainstorm to define the term **sustainability**. Invite students to share their answers aloud, while you write their responses on the board or overhead.
2. Present students with a definition for sustainability: meeting the needs of the present generation without compromising the ability of future generations to meet their needs. You may want to discuss what the term “needs” refers to: access to clean air and water, food, shelter, etc.
3. Present students with a Venn diagram depicting the three components of sustainability: the economy, the environment, and society. You may need to define these terms before proceeding. Explain that when evaluating the sustainability of an activity/product/service, the positive and negative aspects (including unintended consequences) of this activity on all three of these areas are considered. The Venn diagram can be used to illustrate that there can be an overlap between these components.

4. Inform students that some activities are more sustainable than others and thus, every activity can be placed somewhere on a sustainability scale:



5. To help students gain experience in evaluating the sustainability of an activity, the class will evaluate one activity together – driving to school. Handout the attached worksheet, *Is it Sustainable?* and tell students to complete Think-Pair-Share #1 with their partner.
6. As students consider the question “Is driving to school a sustainable activity?”, encourage them to consider the impact of driving to school on the environment, the economy, and society by answering the following questions:

**Environment**

- What resources are used?
- Are the resources used able to be renewed or regenerated?
- Are plants and/or animals damaged?
- Is biodiversity maintained?
- Does the activity cause air pollution, water pollution, or soil erosion?
- Does the activity generate waste?
- What happens to the waste?
- Will this activity help to conserve natural resources (air, water, land)?

**Economy**

- What is the economic impact of this activity?
- Does the activity create meaningful and satisfying work for individuals?
- Does the activity allow people to do their jobs more efficiently?
- Does the activity contribute to a community’s economic development?
- Does the activity rely on products or services that have negative effects on the environment or society?

**Society**

- Does the activity contribute to people’s quality of life?
- Do some people benefit from this activity at the expense of others?
- Does the activity affect people’s cultures?
- Are individuals and communities involved in making decisions about the activity?
- Does the activity offer more options/opportunities to certain groups of people than others?

7. Project the Venn diagram at the front of the room and ask students to tell some positive and negative impacts that they came up with – write these impacts down with either a green (positive) or red (negative) marker on the appropriate area in the Venn diagram. Remember that some impacts may fall within more than one category and should be placed in the overlap regions on the Venn diagram. By looking at the number and location of green (positive) impacts, the class should be able to come to a consensus about whether the activity is economically, environmentally, and/or socially sustainable. You can also discuss how some unsustainable aspects of driving to school can be made more sustainable (e.g. using biofuel instead of diesel).
8. Students will now repeat this activity by evaluating another activity of their choice as they complete Think-Pair-Share #2. Working with their partner, students will evaluate an activity within ONE of these categories: Individual Activities, School Activities, Government Actions, and Business Products/Services. Note: You may wish to provide students with a list of activities within each category to ensure that a variety of activities are evaluated by the class. Instruct students to pick one activity from the list you provide and to use the same questions that guided their decision-making process during *Think-Pair-Share #1* to determine whether the sustainability of this activity.
9. For each positive/negative impact that students come up with, ask them to write that impact down on either a green (positive) or pink (negative) post-it note. Instruct them to place each post-it note on the appropriate area in the Venn diagram provided on the back of their worksheet. Remind them that some impacts may fall within more than one category and should be placed in the overlap regions on the Venn diagram. By looking at the number and location of green (positive) post-it notes, students will be able to determine whether the activity is economically, environmentally, and/or socially sustainable.
10. Once students have had some time to evaluate their activity, direct them to determine where their activity should be placed on the sustainability scale. Ask them to bring their Venn diagram with the post-it notes attached to the front of

the room and place it at this position on the scale provided at the front of the classroom so that they can see their activity compares to others. Alternatively, you may ask students to present their completed Venn Diagrams to their classmates as they place it on the sustainability scale. It is also interesting to see where groups evaluating the same activity place their Venn diagram.

11. Go over the various activities and the placement of their corresponding Venn diagrams as a class. You may address the following questions to the class:
  - How did you decide where to place your activity on the sustainability scale?
  - Did one category (e.g. economy) outweigh the others as you made your decision?
  - Do you agree with the placement of the various activities on the sustainability scale?
  - How can an unsustainable feature of an activity be adjusted to become more sustainable (e.g. using solar panels to power lights at a football field instead of electricity)?

### **Extension**

Once students have gained experience evaluating the sustainability of an activity, present students with a scenario that requires them to critically evaluate the sustainability of two related activities and make an informed decision about which one is more sustainable, if possible. Scenarios you may wish to provide include:

- Recycling a bottle versus throwing it into the trash
- Drinking bottled water versus drinking tap water
- Using cloth diapers versus disposable diapers
- Using paper versus plastic shopping bags
- Replacing a working washing machine now with an Energy Star model versus waiting until the current washing machine breaks to replace it with an Energy Star model
- Buying a fuel efficient car versus buying a hybrid vehicle
- Eating foods grown locally versus eating fast food from a restaurant chain

### **Culminating Activities**

- Ask students to discuss or write about how they can incorporate more sustainable practices into their daily life.
- Invite someone who works in the field of sustainable development to speak to the class.

### **Differentiation**

Students with Special Needs

- Place students in mixed ability partners for activity completion.
- Think-Pair-Share Activity #2 could be completed as an entire class; project the Venn diagram at the front of the room and have students post positive and negative attributes of the activity onto the diagram.

AIG

- Students can work individually and assess the sustainability of an activity of their choice.
- Ask students to summarize their evaluation in writing.
- Ask students to evaluate the sustainability of a local activity making headlines such as the opening of a new school or business, or a community festival or event.

### **Resources**

EPA's Sustainability Home Page

<http://www.epa.gov/sustainability/index.htm>

## Is it Sustainable?

Adapted from *Is it Sustainable? In Facing the Future: People and the Planet*, 2006.

[www.facingthefuture.org/Members/documents/6.Is.it.Sustainable.pdf](http://www.facingthefuture.org/Members/documents/6.Is.it.Sustainable.pdf)

### Think-Pair-Share #1

With a partner, discuss the question: Is driving to school a sustainable activity?

You'll need to be able to explain your decision to the class.

*As you consider this question, think about the impact of driving to school on the environment, the economy, and society:*

#### Environment

- What resources are used?
- Are the resources used able to be renewed or regenerated?
- Are plants and/or animals damaged?
- Is biodiversity maintained?
- Does the activity cause air pollution, water pollution, or soil erosion?
- Does the activity generate waste?
- What happens to the waste?
- Will this activity help to conserve natural resources (air, water, land)?

#### Economy

- What is the economic impact of this activity?
- Does the activity create meaningful and satisfying work for individuals?
- Does the activity allow people to do their jobs more efficiently?
- Does the activity contribute to a community's economic development?
- Does the activity rely on products or services that have negative effects on the environment or society?

#### Society

- Does the activity contribute to people's quality of life?
- Do some people benefit from this activity at the expense of others?
- Does the activity affect people's cultures?
- Are individuals and communities involved in making decisions about the activity?
- Does the activity offer more options/opportunities to certain groups of people than others?

## Student Worksheet

NAME: \_\_\_\_\_

### Think-Pair-Share #2

1. With a partner, pick ONE of these categories and circle it:

*Individual Activities*  
*School Activities*  
*Government Actions*  
*Business Products/Services*

2. Next, pick one activity from the chart provided by your teacher and use the same questions that guided your decision-making process during *Think-Pair-Share #1* to determine whether this is a sustainable activity.

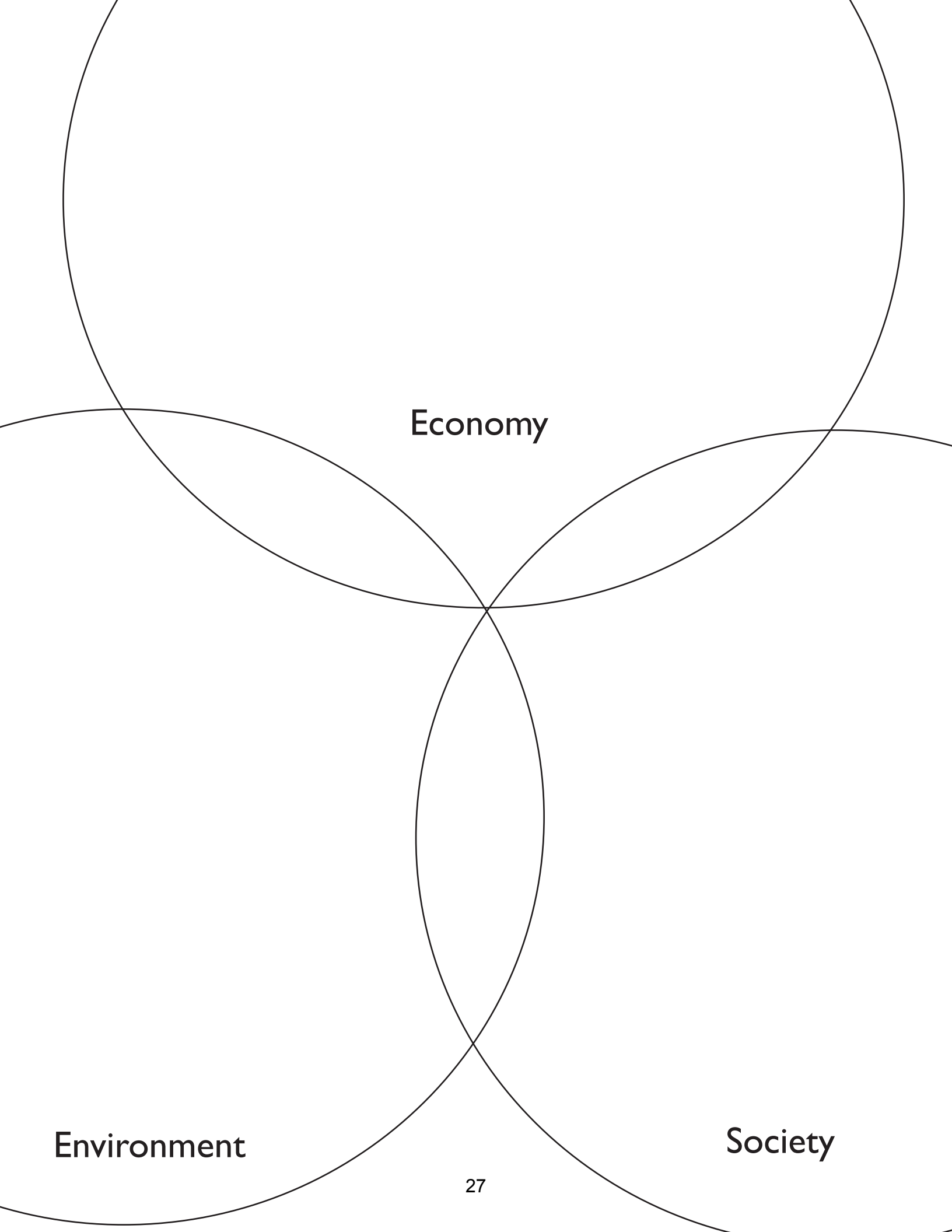
List the activity you will evaluate here:

3. For each positive/negative impact that you come up with – write that impact down on either a green (positive) or pink (negative) post-it note. Next, place each post-it note on the appropriate area in the Venn diagram provided on the back of this sheet. Remember that some impacts may fall within more than one category and should be placed in the overlap regions on the Venn diagram.

4. By looking at the number and location of green (positive) post-it notes, you will be able to determine whether the activity is economically, environmentally, and/or socially sustainable. You'll need to be able to explain your decision(s) to the class and show your completed Venn diagram.

5. Decide where your activity should be placed on the sustainability scale below – draw an X indicating its position on the scale. Next, take your Venn diagram with the post-it notes attached and, using tape, place it at this position on the scale provided at the front of the classroom so that you can see how your activity compares to others.





**Economy**

**Environment**

**Society**



# Is It Sustainable?

## OVERVIEW

Students define and discuss sustainability and its 3 key components: the economy, the environment, and society. Students brainstorm, analyze, and write about the sustainability of a variety of actions taken by individuals, businesses, and governments, using a Venn diagram to help organize the process.

## INQUIRY/CRITICAL THINKING QUESTIONS

- What does “sustainability” mean and how does it apply to human activity?
- How is the sustainability of an individual, business, or government activity determined?
- How can we balance the needs of people, protect the environment, and have a vibrant and equitable economy?
- How can an activity be made more sustainable?

## OBJECTIVES

Students will:

- Define sustainability and its 3 key components: the economy, the environment, and society
- Identify and describe a range of activities undertaken by individuals, businesses, and governments (e.g. foods they eat, transportation they use, products they buy, services provided, laws passed, etc.)
- Determine the sustainability of these activities based on a set of criteria that includes impacts on the economy, the environment, and society
- Represent their findings using a Venn diagram
- Analyze if and how an unsustainable activity can be altered to adhere to the 3 components of sustainability

**TIME REQUIRED: 1 hour**

## KEY ISSUES/CONCEPTS

- **Sustainability**
- **Three components of sustainability: economy, environment, and society**

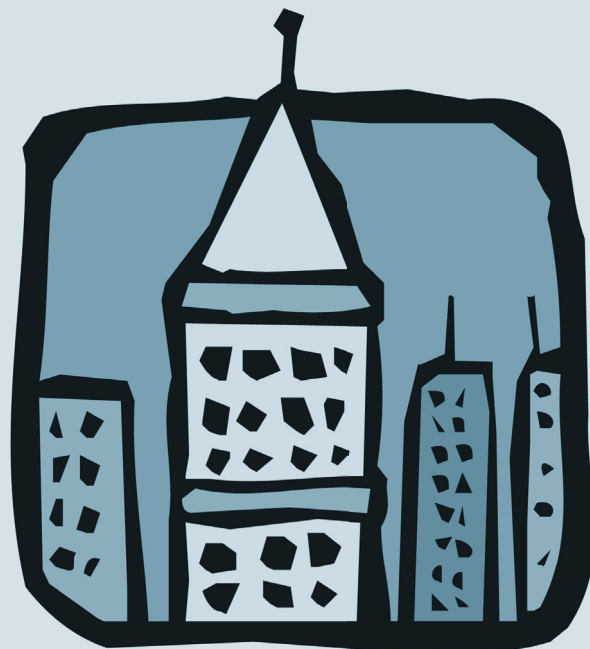
## SUBJECT AREAS

- **Social Studies**  
(World History, World Cultures, Geography, Economics, Global Studies)
- **Science** (Life, Environmental)

## NATIONAL STANDARDS CONSISTENCY

- **NCSS: 1, 3, 4, 5, 6, 7, 8, 9**
- **NSES: B, C, E, F**

## GRADE LEVEL: 7–12



# Is It Sustainable?

## FTF Related Reading

- Intermediate: Chapter 1 from *Global Issues and Sustainable Solutions*
- Advanced: Unit 1, Chapter 2 from *It's All Connected*

## Materials/Preparation

- Overhead: *Components of Sustainability*
- 3 different colored sticky notes, 2"x2", enough for each student to have 1 sticky note of each color
- Draw a Venn diagram (like the one in the *Components of Sustainability* overhead) on a large sheet of butcher paper (or project the overhead onto a whiteboard)

## Activity

### Introduction

1. Ask the class what they think sustainability means. Have them first think quietly for a minute. Then have them pair up with a partner and discuss what they think sustainability means. Have them share their answers with the class. As they share, write down their ideas on the board or overhead. Ideally they will construct a definition that is close to this: Sustainability means meeting present needs without compromising the ability of future generations to meet their own needs. The meaning of this might be explored further, with "needs" or "needs of the present" defined more clearly by students. Have them brainstorm some needs and then discuss the potential conflicts that inevitably arise between needs (e.g. having affordable clothing versus livable wages for workers, or having clean air versus using a car as transportation).
2. Define the 3 components of sustainability using the overhead *Components of Sustainability*. Explain that in determining whether an action or product/good/service is sustainable, many people who study sustainability take into account 3 key elements: the environment, the economy, and society/equity. In order to determine whether or not something is sustainable, the activity being evaluated would be assessed in relation to each of these principles, or "standards of sustainability". This assessment reveals how the action or item impacts the economy, the environment, and society, in either negative, positive, or neutral ways. You may need to define economy, environment, and society. Do this using the same think, pair, share method used to define sustainability.
3. Using the Venn diagram (on the butcher paper or projected on the whiteboard) explain that its purpose is to demonstrate that issues overlap and share common traits.

### Steps

1. Explain that they will list and analyze the sustainability of several different activities, products, and actions from the categories of: individual activities (e.g. eating breakfast, driving to school, attending school, and playing guitar), specific business products or services (e.g. clothes, housing, computers, restaurants) and specific government actions (e.g. passing laws and

# Is It Sustainable?

regulations, provision of services such as utilities, trash, etc.).

- Before breaking them into groups, choose 1 activity (such as driving to school) and walk through an analysis of the activity with the whole class, asking if it is sustainable using the 3 “components of sustainability” (Economics, Environment, and Society) as a guide. Questions to ask about the activity include:

## Sustainability:

- Is the activity sustainable today?
- Can it be done without causing damage in the 3 areas (economics, environment, and society?)
- Can this activity be done so that people in the future will have the same opportunities to do this activity as people today?

## Environment:

- How many resources does the activity use?
- Does the activity cause damage to plants or animals?
- Is biodiversity protected?
- Does it cause air pollution, water pollution, or soil erosion?
- Does it use resources at a rate that allows the resource to be renewed or regenerated?
- What happens to the waste created by the activity?
- Does the activity generate excessive waste?

## Society:

- Does it contribute to people’s quality of life?
- How does it affect culture(s)?
- Are individuals and communities involved in making decisions about the activity, and is the decision-making

process fair and democratic?

- Is it an equitable activity; does it offer more options and opportunities to certain groups of people than others?

## Economy:

- What is the economic impact of the activity?
- Does it create meaningful and satisfying work for individuals?
- Does it contribute to a community’s economic development?
- Does the activity rely on products or services that have negative effects on the environment or society?
- Do some people benefit economically from this activity at the expense of others?
- Will this activity contribute to the conservation of natural resources?

- Arrange students in groups of 3 and assign each group 1 category: individual activities, business products and services, or government actions.
- Have them create a brainstorm list of activities that fall within their assigned category.
- From their brainstorm list, have students choose 2 activities from their list and transfer these to individual color-coded sticky notes (use different color sticky notes for each category, such as blue for individual activities, yellow for business activities, and green for government activities).
- Have students place their sticky notes on the Venn Diagram in the area they think the activity best fits, depending on whether the activity is economically, environmentally, and/or socially sustainable.

# Is It Sustainable?

7. Have each group explain to the class how they decided on the placement, giving concrete examples and evidence to support their decision. Encourage each member of the group to participate in the discussion and, if time permits, answer questions from the class.
8. Conclude with the following reflection questions.

## Assessment Reflection Questions

### For Intermediate and Advanced Students

- If someone asked you what sustainability meant, how would you respond?
- Explain whether it is easy or hard to decide whether an activity is sustainable.
- Can everything we do be measured against the standards of sustainability? What are some examples of activities that would be especially difficult to measure and especially easy to measure?
- Can something that is unsustainable be altered to become more sustainable?
- Choose an unsustainable activity from the Venn Diagram and explain how it could be made more sustainable.

### For Advanced Students

- Why do you think people use the standards of sustainability to assess

- human activities? How and where could this process be useful?
- If you were a business owner or a government decision-maker, what would you think about sustainability?
  - Ask whose needs should be met when there are trade-offs involved (e.g. between economic and environmental priorities) and how these contradictions can be resolved. This discussion will underscore the idea that working toward sustainability is a balancing act that requires long-term creative thinking and the ability to compromise and see through the eyes of others. Issues of choice and responsibility are also highlighted – students will learn that they have the ability to make choices that bring about positive change, and understand that their choices (e.g. whether or not to eat fast food or buy a brand of clothing that is manufactured in sweatshops) have concrete economic, environmental, and social impacts, even if these impacts are out of sight and felt far away.
  - Discuss the difference between “economic development” and “economic growth” and the relationship between economic growth and consumption. What is the role of economic growth in fostering sustainable development?



# Is It Sustainable?

Does economic development help nations focus more on conserving their resources or does it contribute to over-consumption? In some cases, economic development includes commitments to eradicating poverty and changing unsustainable patterns of consumption.

## Technology Connection

- Compare the levels of sustainability of different nations by downloading the International Institute for Sustainable Development's "Dashboard of Sustainability." The Dashboard is a unique on-line tool that uses a vehicle's instrument panel to represent country-specific assessments of economic, environmental, social, and institutional performance toward (or away from) sustainability. Download at [http://www.iisd.org/cgsdi/intro\\_dashboard.htm](http://www.iisd.org/cgsdi/intro_dashboard.htm).

## Action Projects

- Visit [www.facingthefuture.org](http://www.facingthefuture.org), click on **Take Action**, and then **Fast Facts Quick Actions** for sustainability information and action opportunities.
- Have your students take the **Facing the Future Pledge** to help create a sustainable world. Pledge form is on page 22 or can be downloaded at [www.facingthefuture.org](http://www.facingthefuture.org). Post the pledges in the classroom and have students track and then report later in the year how they are doing on their pledge.

## Additional Resources

### Films

- *Ecological Design: Inventing the Future*, Brian Danitz and Chris Zelov, 1994, 60

minutes. What do flying bicycles, Rocky Mountain jungles, "living machines", and recyclable homes with their own "metabolism" all have in common? They are unique, inexpensive solutions to the design dilemma of sustainable living and are all featured in this film.

- *Visions of Utopia: Experiments in Sustainable Culture*, Geoph Kozeny, 2002, 94 minutes. This documentary looks at different ways people are bringing more community into their lives and their work.

### Websites

- [www.iisd.org](http://www.iisd.org) - The International Institute for Sustainable Development (IISD) engages decision-makers in government, business, NGOs and other sectors to advance policies that are beneficial to the global economy, environment, and social well-being.
- [www.naturalstep.org](http://www.naturalstep.org) - A non-profit international organization working to build an ecologically and economically sustainable society through education, scientific research, and services for business and government.

# Lesson 6 Overhead: *Components of Sustainability*





## Lesson 4 ENVIRONMENTAL SCIENCE

**Class** Environmental Science

**Grade Level** 11, 12

**Unit of Study** Populations

**Background Knowledge** Students have completed the introductory unit. They have a broad understanding of what environmental science is.

**Learning Objective** Students will evaluate the factors that lead to a communicable disease spreading in a developing country and develop a remediation action plan.

**Educational Standards** Next Generation Science Standards (NGSS) HS-LS4-6. Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.

### Specific Encyclical Theme

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption



- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

### **Encyclical Citations 25, 48-49, 91, 158**

### **Lesson/Activity Mosquito Case Study**

### **Opening Prayer**

Lord Jesus, may everything I do begin with You,  
 continue with Your help, and be done under Your guidance.  
 May my sharing in the Mass free me from my sins,  
 and make me worthy of Your healing.  
 May I grow in Your Love and Your service,  
 and become a pleasing offering to You;  
 and with You to Your Father.

May the mystery I celebrate help me  
to reach eternal life with You. Amen.

### **Bell Work/Warm-up**

**What impact do mosquitos have in Tucson?** (*This question/discussion can easily be adapted to your location.*)

Students should first reflect on the question and then record their responses individually. Next, as a table they should share what they have written. Lastly, the instructor should ask for some to share responses with the whole group.

*This lesson uses a case from National Center for Case Study Teaching in Science by Hannah L. Rusch and Jim Perry (see pages 39-42).*

### **Engage**

I typically use this lesson in the early fall when mosquitos are at the apex of their impact in the Tucson area. I begin with a current local news clip that discusses West Nile virus, which prominently appears in Tucson during this time of year. This year I will also look for clips including Zika virus concerns. You can adapt this portion accordingly. I transition to the case study with a discussion of how other parts of the world are affected by mosquitos.

### **Explore**

Students work in small groups reading through the case study one section at a time. As groups finish answering the questions at the end of each section we come together as a class and discuss their responses. Through our discussions I try to emphasize how interconnected all people of the world are in combatting health issues such as dengue or West Nile virus. Another point of emphasis in our discussion is how the poor are typically impacted more by diseases like dengue.

We explore why that is true and our moral obligation to help improve conditions for all people.

### **Evaluate**

The last piece of the case study has students create a management plan and evaluate classmates' plans. This allows students time to consider the problem and develop solutions on a very deep, analytical level. This leads to a discussion of service and how we can have positive impacts on people less fortunate. I also find the peer evaluation to be particularly impactful for students.

# Dengue and the Landscape: A Threat to Public Health

by

Hannah L. Rusch and Jim Perry

Department of Fisheries, Wildlife & Conservation Biology  
University of Minnesota—Twin Cities



## Part I – Introduction to the Problem

Kemar labored under the tropical sun all day trying to make progress clearing out the drainage canals surrounding his field. It was slow work whacking reeds with his machete and trying to pry up the roots from the swampy soil. As evening approached, Kemar heard the rumble of thunder over the hills. He straightened his stiff back and looked skyward. A dark wall of clouds announced the approaching rain. After last year's drought, Kemar initially welcomed the rain. However, the intensity of this year's rain presented its own troubles.

Night quickly fell as Kemar gathered his tools and walked home down the gravel road. He saw his neighbor LeJohn out in his yard. "Hello LeJohn, you alright?" Kemar asked.

"I'd be better if there weren't so many mosquitoes," replied LeJohn, as he killed another mosquito. "The mosquitoes are breeding up worse than ever before. They are so thick this year that my family and I can't get any rest at night. And on top of it all, Shanae is sick now," LeJohn complained.

"What does she have?" Kemar asked.

"I'm not sure," said LeJohn. "She's been complaining of a headache and nausea, joint and muscle pain, and today she found a rash on her body."

"Did she go to the hospital yet?" Kemar asked gently. The Port Maria Hospital sat on top of the hill south of Kemar's field. Although it was just a short distance away, Kemar knew that neither LeJohn nor Shanae had regular employment and hadn't had any for a while; he also knew that going to the hospital was expensive.

"Why don't you come inside and see her?" suggested LeJohn, avoiding the question.

The two men walked into LeJohn's humble home. LeJohn, like many people in the community, had built his own house out of ply board. The windows were small and without screens. The storm fluttered the curtains as Kemar and LeJohn approached Shanae, who was resting on the bed. Despite the heat of the day, she was wrapped up in a blanket. Kemar felt Shanae's forehead.

"LeJohn, she has a fever. She needs to see a doctor. I'll take her," Kemar offered.

Kemar and LeJohn supported Shanae as they walked to the nearest taxi stop, which was located next to a newspaper kiosk. Kemar read the headline on a front page, "77 dengue cases." He continued to read:

Wednesday, August 04, 2010

Dengue Fever continues its march across Central American and Caribbean countries. Yesterday the Health Minister told journalists that of the 77 laboratory-confirmed cases, seven are the more severe form of the illness—dengue hemorrhagic fever (DHF).

So far, no cases of dengue shock syndrome had been reported, nor had there been any related deaths.

The Health Ministry is on high alert in light of the growing number of cases of dengue fever and dengue hemorrhagic fever in the country and region. Consequently fogging and oiling activities have been intensified. Fogging is being carried out in approximately 800 communities across the island.

Just then a taxi for the Port Maria Hospital pulled up. Kamar, LeJohn, and Shanae got in and after a short drive they arrived at the hospital.

### *Question*

1. Which of the conditions described in Kamar's landscape are favorable to mosquito breeding?
2. Thinking more broadly, are there other influences that might contribute to increased mosquito breeding?
3. Given what you know so far about this case, develop at least one hypothesis to explain the cause of Shanae's illness.

## Part II – Mosquitoes in the City

Dr. Ling approached the bench outside the hospital where Kemar, LeJohn, and Shanae were waiting. “The laboratory test has confirmed that Shanae has dengue fever,” Dr. Ling announced. “Unfortunately, there is not a specific treatment or vaccine for dengue fever. The best we can do is ensure she is hydrated and monitor her health.”

Kemar thought of the article he had just read. “The newspaper is reporting that the number of cases is increasing,” said Kemar.

“Yes,” Dr. Ling replied. “In recent decades, we have seen more dengue fever cases reported not only in Jamaica, but in the tropics all around the world, especially in urban areas. This rise in dengue cases is alarming because it could also lead to an increase in the number of cases of the more dangerous condition, dengue hemorrhagic syndrome.”

“What causes dengue fever?” LeJohn asked.

“Dengue fever is caused by a virus carried by the *Aedes aegypti* mosquito and transmitted by mosquito bites,” said Dr. Ling. “*A. aegypti* thrive in urban areas because there is an abundance of human hosts and favorable breeding sites. Artificial containers such as tin cans, tires, metal drums, and buckets as well as shaded and vegetated areas that hold small pools of water are the mosquitoes’ favored breeding sites. Stagnant water collected in these areas provides excellent breeding conditions. Adults lay their eggs in the small water bodies; the larvae emerge from the eggs and grow to become mature adults within about four weeks. The adults remain close to their hatching sites, ranging only one to thirty meters, which is another reason why the species favors densely populated urban areas.”

“One concern we have is that as the temperature rises, the incubation period of the *A. aegypti* decreases. The probability of a dengue outbreak increases as the number of *A. aegypti* mosquitoes increases.”



Figure 1. An *Aedes (Ochlerotatus) sp.* mosquito on human skin. Photo by ARS Photo Unit, United States Department of Agriculture, Image Number K4705-9, <http://www.ars.usda.gov/is/graphics/photos/mar09/k4705-9.htm>.

### Questions

1. What global trends might explain the rise in dengue fever cases around the world in recent decades?
2. Given what you know now about *A. aegypti* breeding sites, can you identify any additional variables in Kemar’s landscape that are favorable to mosquito breeding?
3. What measures might be taken to reduce or prevent dengue fever?

## Part III – Formulating Solutions

A few weeks later, the mosquitoes were still dense, but Shanae had recovered from dengue fever. Although the newspaper said that fogging and oiling to prevent mosquito breeding were to be intensified, Shanae was disappointed that there was no sign of increased efforts in her neighborhood. Worried about the health of her community, Shanae decided to find out why no action had been taken. She walked up the hill to the Port Maria Hospital and asked to speak with Mr. Mac, the head of the Vector Control department of the Ministry of Health.

“Mr. Mac, why haven’t mosquito control crews been to my neighborhood? My neighbors and I are getting sick, but no one from the Ministry of Health seems to care,” Shanae complained.

“It’s not that we don’t care, Shanae. It is our duty at the Ministry of Health to promote the well-being of the citizens. We are doing what we can with the resources we have. If we are to increase mosquito control efforts, we will have to divert money from other health programs. It’s not easy to convince people that money should be taken from programs like maternal health and child nutrition or healthy lifestyles and be spent on killing mosquitoes instead.”

“Something must be done though,” Shanae demanded.

“I agree,” said Mr. Mac. “The Ministry of Health needs the help of the citizens to help prevent the spread of dengue fever.”

“What can we do?” Shanae asked.

### Questions

1. In class today: Develop a management plan to prevent mosquito breeding. Select the scale you feel is most appropriate (e.g., local, regional, global) and explain why you chose this scale. What are the short- and long-term benefits to public health of your management plan? What are the environmental implications of your management plan?
2. Post to the course site before next class: Design a public education program to educate Shanae’s community members about dengue fever. Your plan should be at least one full page. What message will your education program communicate? How will information be disseminated? What are the three important variables the education program must consider?
3. Read and post a critique (250-word minimum) of the management and education plans of at least one peer. What are the strengths and weaknesses in the plans? Have any important considerations been ignored?



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## Lesson 5 ENVIRONMENTAL SCIENCE

**Class** Environmental Science

**Grade Level** 11, 12

**Unit of Study** Ecology

**Background Knowledge** Students have completed the introductory unit and a chapter on populations. They have a broad understanding of what environmental science is.

**Learning Objective** Students will observe their local environment and describe how living things interact with each other and with nonliving components.

**Educational Standards** Next Generation Science Standards (NGSS) HS-LS2-6. Evaluate the claims, evidence and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.

### Specific Encyclical Theme

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)



- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
  - Avoid the mere accumulations of goods and pleasures
  - Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
  - Sobriety, freely and consciously lived, is liberating
  - Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
    - Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
    - Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

### **Encyclical Citations 42, 140, 160**

### **Lesson/Activity** Courtyard Ecology

### **Opening Prayer**

Through the silence of nature,  
 I attain Thy divine peace.  
 Oh sublime nature,  
 in thy stillness let my heart rest.  
 Thou art patiently awaiting the moment

to manifest through the silence of sublime nature.  
Oh nature sublime, speak to me through silence,  
for I am awaiting in silence like you the call of God.  
Oh nature sublime,  
through thy silence I hear Thy cry.  
My heart is tuned to the quietness,  
that the stillness of nature inspires.

—*Hazrat Inayat Khan*

### **Bell Work/Warm-up**

#### **What are the important aspects of an ecosystem?**

In our discussion I emphasize the interactions not only among biotic aspects of the ecosystem but also the abiotic components.

Students should first reflect on the question and then record their response individually. Next, as a table they should share what they have written. Lastly, the instructor should ask for some to share responses with the whole group.

### **Engage**

The lesson starts with a short video that highlights the characteristics of the Sonoran Desert. An alternate video or article could be used for other ecosystems.

### **Explore**

As a class we visit a quiet part of campus—typically a courtyard that has diverse plant life but is heavily influenced by people and landscaping. Students are asked to just sit and quietly observe living and nonliving components for 10 minutes. It seems simple, but it is very rare for our typical student to sit quietly without a phone or tablet and observe nature. This allows them time to connect to their

surroundings. Students are asked to log some living components and non-living components during their observations (*see pages 47-49*).

### **Evaluate**

Students are asked to answer the questions at the end of the attached sheet. We discuss their responses as a class. I am particularly interested to hear what they thought of sitting and observing for 10 minutes. Most seem to appreciate it and made observations they had never noticed about an area that they may walk through five times a day. I close the conversation by bringing it back to the encyclical and how the Church emphasizes the importance of us connecting with nature and other people.

Name

Date

Period

## Courtyard Ecology

### Background

The word **ecology** is derived from the Greek word *oikos*, meaning "place to live" or "house." Ecology is the study of how organisms interact with one another and their physical environments. In other words, it is the study of how things are interconnected in nature.

To understand the interconnectedness of organisms, it is necessary to study **ecosystems**, or biological communities interacting with one another and their environment. Ecosystems have many components that can be broken into two major categories, **living** and **non-living**.

A **species** is a group of similar organisms that can produce offspring. **Populations** are groups of individuals of the same species that occupy a given area at the same time. All of the populations of different species occupying a particular ecosystem make up a **community**.

### Directions

Spend 10 minutes observing different parts of the courtyard ecosystem.

Start by walking around the courtyard to get the "big picture." Pick a specific location in the courtyard, sit or crouch, and observe the relationship between the living and non-living components.

Record your observations in the data table below.

### Data Table

**Living Factors**

**Non-Living Factors**

**Species**

**# of organisms in population**

**Object**

**# of objects in the area**

### **Conclusion Questions**

- What kingdom of living things did you see the most of? (Plants, animals, fungi, bacteria, etc.) What species did you see of that kingdom?
- Pick three examples of living things that you observed and describe their role in the ecosystem.
- Pick three examples of non-living things that you observed and describe their role in the ecosystem.

- What living things didn't you observe, but you believe live in the courtyard anyway? What roles do they serve in the ecosystem?
- What do you think would happen to the rest of the ecosystem if one of the populations was removed or killed? How would it affect the ecosystem? Be specific in your response.
- Pick another ecosystem that you are familiar with. Does it typically have greater or fewer populations than the courtyard ecosystem? Why?
- How did it feel to sit and just quietly observe for 10 minutes?



## Lesson 6 ENVIRONMENTAL SCIENCE

**Class** Environmental Science

**Grade Level** 11,12

**Unit of Study** Cost of Environment

**Background Knowledge** Students have developed an understanding of basic ecological components and vocabulary. They have studied ecosystems and biogeochemical cycles.

**Learning Objective** Students will develop a simulated plan to distribute funds in a way to have the greatest impact. Value judgments will be explored and defined.

**Educational Standards** Next Generation Science Standards (NGSS) HS-LS2-7. Design, evaluate and refine a solution for reducing the impacts of human activities on the environment and biodiversity

### Specific Encyclical Theme

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption



- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

**Encyclical Citations 36, 114, 141, 177**

**Lesson/Activity** Environmental Action Simulation

### **Opening Prayer**

Lord, help us to maintain a reverent attitude towards nature, threatened from all sides today, in such a way that we may restore it completely to the condition of brother/sister and to its role of usefulness to all humankind for the glory of God the Creator.

—*Franciscan prayer*

## **Bell Work/Warm-up**

### **In what ways do you positively impact the environment?**

Students should first reflect on the question and then record their response individually. Next, as a table they should share what they have written. Lastly, the instructor should ask for some to share responses with the whole group.

## **Engage**

Start by showing a few television/internet commercials from environmental organizations. Followed with a conversation about what may make one organization more impactful than another.

## **Explore**

The students will then complete the Environmental Action Simulation, *see pages 55-59*. The students will represent an organization that would like to donate \$20,000 to environmental organizations. Students will work in small groups to decide how funds should be dispersed. They will then be asked to defend their plan to the rest of the class upon completion. Defending their plan is particularly important when considering how a small group of individuals can make the biggest impact possible. It is often daunting when considering environmental problems that seem insurmountable. This activity allows students to see that taking action, even small action in the grand scheme of things, can lead to positive impacts. It is also interesting to hear how different groups use value judgements when determining which groups deserve funding. Some groups look toward a local impact while others look for a more global impact.

## **Evaluate**

For homework, students are asked to find and research an organization with a mission to improve the environment in some way. We complete the activity by

discussing their research and how positive impacts are possible. Even small positive actions can have large rippling effects.

## Environmental Action Simulation

Each member of your group is part of a committee for an Environmental Organization, GCEAO (Granite City Environmental Action Organization). The GCEAO has \$20,000 to allot to environmental programs. Many groups have submitted their applications to receive this money. **Your team's job is to determine how the \$20,000 should be spent.** At the end of the hour, your group will be asked to explain what your \$20,000 was spent on. You must justify your choices. Teams shall be composed of four to six members. To help you identify the causes that are most important to your group, a number scale is included with each program. As a group, choose the number that best describes how important the program is. 1 = least important; 5 = very important

\$1,000 donated to this organization will help save four orphaned orangutans and pay for their rehabilitation and eventual release back into the wild. You may opt to spend more than \$1,000 for this cause.

1 2 3 4 5

\$1,000 donated to this organization will help feed and house five dogs and 10 cats for a year. You may opt to spend more money to help more animals. The shelter also provides low-cost spaying and neutering to help prevent pet overpopulation.

1 2 3 4 5

This local organization is dedicated to cleaning up creeks and natural water supplies in the area. They not only beautify the area they also clean up pollution caused by chemicals and trash. This company is asking for \$5,000 to help restore local creeks.

1 2 3 4 5

This organization is asking for \$4,000 to help with education. They go to local schools to teach children about environmental concerns and organize Earth Day celebrations.

1 2 3 4 5

This national organization lobbies governmental officials to promote environmentally friendly laws. Their efforts helped pass the Clean Air Act and the Endangered Species Act. They request \$5,000 to help continue their work.

1 2 3 4 5

Feeding Children Better is a national organization that travels to impoverished countries and helps to feed children (and adults). This group also helps communities set up farms and clean water supplies to decrease hunger. They request \$10,000 to fund an operation in Africa to help the people there.

1 2 3 4 5

Granite City Steelworkers for the Betterment of the Environment is a local group organized by workers of the steel mill. They are requesting \$15,000 to add a special filter to the smokestack that will reduce the pollution in Granite City by 80%.

1 2 3 4 5

Innovative Designs, a non-profit company, researches alternate energy sources, such as solar and electric power. They are researching a car that will run entirely on corn oil (a renewable resource). A request of \$20,000 will help them complete the design and functioning of this car.

1 2 3 4 5

Prairieland Agriculture, a biological company, is dedicated to developing pest-resistance crops. Such crops would reduce the need to put chemicals onto the land and improve the overall environment of the prairie ecosystem. \$10,000 will go toward research.

1 2 3 4 5

Recycle USA is a national company that operates locally. For \$10,000 the company will set up a recycle center in your community. Recycling will reduce the amount of waste going to the landfill and be self-sustaining. Money from the center will be returned to the community.

1 2 3 4 5

This organization buys land and designates it as a protected area. The land is used as a habitat for threatened animals, such as wolves, and non-threatened animals, such as deer and rabbits. The organization is requesting \$15,000 to buy 50 acres of land near your community to preserve for wildlife.

1 2 3 4 5

This global organization is dedicated to saving rainforests in Africa, Asia and South America. A \$10,000 donation will save 500 acres of rainforest and help prevent species extinction for several animals and native plants.

1 2 3 4 5

Save the Whales helps endangered whales. \$1,000 will save one whale per year.

1 2 3 4 5

An organization devoted to education in impoverished countries provides services that help women make responsible choices about their reproduction and reduce the area's overall population growth. \$15,000 will provide a clinic in a country that will provide women with birth control.

1 2 3 4 5

## **Programs**

ANALYSIS (answer as a group)

**List the programs your group decided to fund. Make sure you do not spend more than \$20,000**

- Generally, what programs were most attractive to the members of your group? Why did some programs receive a score of 5, but others had a lower score?
- The World Wildlife Foundation often runs commercials that show polar bears or other animals. Why do you think this type of advertising campaign is used?
- Consider what you've learned about people's choices and their willingness to donate to causes. If you are trying to make an advertisement for your community to get people to recycle, how would you encourage participation? Describe or sketch your advertising campaign below.





## **Lesson 7 ENVIRONMENTAL SCIENCE**

**Class** Environmental Science

**Grade Level** 11, 12

**Unit of Study** Restoration

**Background Knowledge** Students have studied biogeochemical cycles, ecology and cost of the environment.

**Learning Objective** Students will model a restoration project. They will consider the complexities in real projects.

**Educational Standards** Next Generation Science Standards (NGSS)

HS-ESS3-3. Create a computational simulation to illustrate the relationships among management of natural resources, the sustainability of human populations and biodiversity.

HS-LS2-7. Design, evaluate and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

**Specific Encyclical Theme**

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)

- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

### **Encyclical Citations 29, 58, 76, 182-184**

**Lesson/Activity** Restoration in a Beaker *see pages to follow*

### **Opening Prayer**

Gracious God, your amazing love extends through all time and space, to all parts of your creation, which you created and called good. You made a covenant with Noah and his family, putting a rainbow in the sky to symbolize your promise of love and blessing to every living creature, and to all successive generations. You

made a covenant with Abraham and Sarah, blessing them and their descendants throughout the generations. You made a covenant with Moses and the Israelite people to all generations, giving them the 10 commandments and challenging them to choose life. In Jesus, you invite us to enter into a new covenant, in communion with all who seek to be faithful to you.

As people of faith, we are called into covenant. Your covenant of faithfulness and love extends to the whole creation. We pray for the healing of the earth, that present and future generations may enjoy the fruits of creation, and continue to glorify and praise you.

—*National Council of Churches*

### **Bell Work/Warm-up**

Students should first reflect on the question and then record their response individually. Next, as a table they should share what they have written. Lastly, the instructor should ask for some to share responses with the whole group)

### **Engage**

I begin with a video showing a restoration project taking place in our community. Groundwater, that we drink, has been threatened by a local landfill, and cleanup efforts are ongoing. Chances are, you have similar local situations that can be used as an example.

### **Explore**

Students complete the “Restoration in a Beaker” lab. The lesson exemplifies how a small action, one drop of food coloring, can have lasting impacts, contaminating water for an extended period of time. The questions lead students to reflect and think about how this model applies to the real world.

## Evaluate

Each student chooses a Superfund site in the region to research. Choose from the EPA's Superfund database at [cumulis.epa.gov/supercpad/Cursites/srchsites.cfm](https://cumulis.epa.gov/supercpad/Cursites/srchsites.cfm). Each student acts as an investigative journalist and produces a television report that describes the "who, what, where, when, and why" of the site. Reports are shown in class, and we discuss how human actions have led to impacts on wildlife and humans in the region.

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

### **Restoration In A Beaker**

#### **Each pair will get the following materials**

- 2 plastic beakers
- 1 plastic pump
- 1 nylon square
- 100mL of pebbles (rinse well)
- 100mL of sand
- 1 piece of paper towel
- 1 spray bottle filled with water
- 1 rubber band

#### **Directions**

- Remove the soap pump and rinse it out.
- Rubber band the nylon square around the bottom of your pump.
- Place the pump on the inside wall the beaker. The nylon should almost touch the bottom of the beaker.
- Put the 100mL of rinsed pebbles in the same beaker.
- Place the piece of paper towel on top of the pebbles.

- Pour the 100mL of sand on top of the paper towel. (We want as little sand as possible to get mixed in with the pebbles)
- Spray water, as a mist onto the sand until the pebbles are completely surrounded by the water (go slowly so that the water has time to filter through the sand).
- Pump out the water and record the amount in mL below. Then dump this water out.
- \* \_\_\_\_\_ mL to saturate the aquifer
- Bring your cup to the front and place 2 drops of red food coloring onto your sand.
- At your table add water until the aquifer is saturated. Pump out all of the water. Continue to do this until the water coming out of the pump is clear. Record the total below.
- \* \_\_\_\_\_ mL to remove all red food coloring
- Clean up by throwing away the sand and paper towel. Rinse the rocks, cups, and pump and bring them back to the materials station.
- Answer the questions on the back of the paper.

**Questions (answer in complete sentences)**

What could this lab be modeling? Explain.

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What surprised you the most about the data you collected?

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What implications does this data have for the “real world”?

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What complications could arise if this was a real restoration project? Explain.

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Write two or three questions this lab has made you wonder about.

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## Lesson 8 ENVIRONMENTAL SCIENCE

**Class** Environmental Science

**Grade Level** 11, 12

**Unit of Study** Energy

**Background Knowledge** Students have studied biogeochemical cycles, populations, pollution, remediation and basic ecological concepts.

**Learning Objective** Students will describe the current energy demands that we (Americans) have, consider ways to alter these and compare them to other parts of the world.

**Educational Standards** Next Generation Science Standards (NGSS)

HS-ESS3-1. Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards and changes in climate have influenced human activity.

**Specific Encyclical Theme**

**Highlight one of the following:**

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption

- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

**Encyclical Citations 22, 46, 51, 82, 165**

**Lesson/Activity** Power Surge Video

### **Opening Prayer**

O God, enlarge within us the sense of fellowship with all living things, our brothers the animals to whom thou gavest the earth as their home in common with us.

We remember with shame that in the past we have exercised the high dominion

of man with ruthless cruelty  
so that the voice of the earth,  
which should have gone up to thee  
in song, has been a groan of travail.

May we realize that they live not for  
us alone but for themselves and for  
thee, and that they love  
the sweetness of life.  
—*St. Basil the Great*

### Engage

Class begins with a discussion of how students think we get our electricity. Inevitably some students believe that the majority of our electricity comes from solar. This would seem possible as we live in the desert. Sadly, the target is to reach 15% by 2025. Ultimately the conversation comes to the realization that the factory off the highway on the south side of town is, in fact, a coal burning electric plant that supplies the vast majority of our power. It is stunning, but most students do not know this until this conversation.

### Explore

Following our discussion, we view the documentary Power Surge  
[youtube.com/watch?v=RVZjq6O3m5A](https://www.youtube.com/watch?v=RVZjq6O3m5A).

Students answer questions on the movie guide (*see pages 72-73*) as we watch.

### Evaluate

Upon completing the video and questions, I ask students to reflect on their own consumption of energy and possessions. We then discuss in small groups the ways that we can limit our consumption. I emphasize that possessions do not make people happy.

Name

Period

Date

## Power Surge Video Guide

[youtube.com/watch?v=RVZjq6O3m5A](https://www.youtube.com/watch?v=RVZjq6O3m5A)

- What is Sir Richard Branson's personal dilemma?
- How much of the U.S. electricity is provided by coal?
- Where did coal originate?
- What is the wedge theory?
- How many technologies available today are capable of solving 1/7 of the problem?
- Name the four categories of technologies capable of solving the problem.
  - a                      b                      c                      d
- Name the Earth Challenge judge sitting next to Branson.
- What is Lackner's idea?
- What % of the demand for Energy do fossil fuels feed?
- What is happening in In Salah, Algeria?
- How many tons of carbon does the average family output per year in energy consumption?
- Why don't we use more solar power?

- What is Secretary Chu's goal by 2035?
- What fraction of total energy use is transportation?
- What makes biofuels such a viable option compared to others?
- How much money does the National Archives save each year in energy costs

since their retrofit?

- How many years will it take to recover the costs of the upgrades at the National Archives?
- If we replaced all 30 mpg cars with \_\_\_\_\_mpg cars, that would be one wedge.
- How many coal power plants would we have to replace with nuclear power plants to equal one wedge in the wedge game?
- How many new nuclear power plants have been built in the U.S. since 1970?
- How many new nuclear power plants are planned to be built in China over the next 30 years?
- 1 Nuclear Power Plant = \_\_\_\_\_ wind turbines = \_\_\_\_\_ square miles of solar panels
- Which "wedge(s)" and how many of each would you use?
- *Green: Efficiency Increases Blue: Cleaning the combustion process of coal*
- *Red: Harnessing the Sun's energy (wind, solar, etc.) Yellow: Nuclear Power*
- Do you believe technology can save us from climate change? Are things as bad as they seem? Or are we far gone from effectively reducing our carbon emissions?



## **Lesson 9 ENVIRONMENTAL SCIENCE**

**Class** Environmental Science

**Grade Level** 11, 12

**Unit of Study** Agriculture

### **Background Knowledge**

Students have studied populations, pollution, biogeochemical cycles and restoration. Students have also watched a documentary called “Fresh.”

### **Learning Objective**

Students will represent a special interest group in a debate that explores modern agricultural practices.

**Educational Standards** Next Generation Science Standards (NGSS)

HS-ESS3-2. Evaluate competing design solutions for developing, managing and utilizing energy and mineral resources based on cost-benefit ratios.

### **Specific Encyclical Theme**

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)



- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

**Encyclical Citations 20, 34, 39, 133-136**

**Lesson/Activity** The Farm Debate *see pages to follow*

### **Opening Prayer**

May the waters flow peacefully; may the herbs and plants grow peacefully; may all the divine powers bring unto us peace. May the rain come down in the proper time, may the earth yield plenty of corn, may the country be free from war. The supreme Lord is peace.

—*Hindu prayer*

## Bell Work/Warm-up

### What do you see as the biggest issue facing modern agriculture?

Students should first reflect on the question and then record their response individually. Next, as a table they should share what they have written. Lastly, the instructor should ask for some to share responses with the whole group.

## Engage

Prior to the introduction, students have completed some research on how agriculture has changed over the last 100 years and watched a documentary called “Fresh” [youtube.com/watch?v=nUIS2t2TI3w](https://www.youtube.com/watch?v=nUIS2t2TI3w). Introduce the debate and show students the debate outline. *See pages to follow.* Choose special interests groups. I typically roll an eight-sided die to ensure fairness. Students are typically genuinely excited to debate their classmates.

## Explore

Students are given time to research their special interest group. They are encouraged to look for benefits and detractions to society, environment and economy. Students are also encouraged to research other groups, as they will be allowed to ask probing questions throughout the debate. Students should look critically at modern agricultural practices.

## Evaluate

The debate allows me to determine how much research each group has completed. Each group begins with a two-minute opening statement. They attempt to persuade the American public that their practices are what is best for them. After opening statements groups are allowed to ask other groups questions in an attempt to strengthen their own stance. Ultimately the group representing the American public and I present takeaways to the group.

During the closing discussion we contemplate how demand for convenience, low prices, subsidies and corporate involvement create a very complicated market where profits are typically the number-one priority.

## The Farm Debate

You and your partners represent a special interest group from the list below. Your job is to convince the audience (your peers and I) that your group's stance makes the most sense. You will present facts that support your stance in a two to three minute presentation. Remember that your job is to convince us that your stance is legitimate. A question and answer session will follow your presentation, so it is essential for you to be knowledgeable on the subject!

Over the next week, your group will conduct research in several different formats. We will begin by reading a brief history of how farming has changed over the last 100 years and the role that the government has played in this. Next, we will watch a documentary that describes the process of farm to plate. Lastly, you will have a class period to complete independent research on the internet.

### Special Interest Groups

- Cattle Farmer
- Corn Farmer
- Organic Family Farm
- Senator
- Foreign Nation
- U.S. Consumer
- Valero (Ethanol Producer)
- Monsanto (Seeds)
- Kellogg's (Food Producer)

Today, you have time to do some research on your position and other teams' positions. It is important that you...

- Look for the positives of your position—what good comes from your industry/sector?
- Look for the negatives of your position and find ways to defend it.
- Look at other teams for alliances and potential “enemies.”
- Look for negatives of teams that you believe will not side with your position (counter attack).

\*Take notes so that you can refer to them on next week's debate.

\*Produce a two to three minute description of your position and be prepared to field questions from other teams.

Group Members \_\_\_\_\_

Special Interest Group \_\_\_\_\_

### **The Farm Debate**

Each category will be graded on a 1-5 scale with 5 being the highest score.

Opening statement was well-researched and accomplished goals.

1

2

3

4

5

Asked other groups questions to help solidify their own stance.

1

2

3

4

5

Defended their stance with research when asked questions.

1

2

3

4

5

Even contribution from all members.

1

2

3

4

5

All members displayed appropriate behavior/etiquette during the debate.

1

2

3

4

5

## Comments





## Lesson 10 ENVIRONMENTAL SCIENCE

**Class** Environmental Science

**Grade Level** 11, 12

**Unit of Study** Energy

**Background Knowledge** This activity is used as an introductory lesson in the chapter on Energy. Students have previously studied ecology, pollution and biogeochemical cycles.

**Learning Objective** Students will quantify the amount of CO<sub>2</sub> they contribute to the atmosphere and explore ways to limit their emissions.

**Educational Standards:** Next Generation Science Standards (NGSS)

HS-ESS3-1 Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards and changes in climate have influenced human activity.

HS-ESS3-2 Evaluate competing design solutions for developing, managing and utilizing energy and mineral resources based on cost-benefit ratios.

### Specific Encyclical Theme

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)

- To be serenely present to each simple and small reality (either person or thing)
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- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

### **Encyclical Citations 24, 95, 183, 218**

**Lesson/Activity** What is your impact?

### **Opening Prayer**

Oh, Eagle; come with wings outspread in sunny skies.

Oh, Eagle, come and bring us peace, thy gentle peace.

Oh, Eagle, come and give new life to us who pray.

Remember the circle of the sky; the stars, and the brown eagle,  
the great life of the Sun, the young within the nest.

Remember the sacredness of things.

—*Pawnee prayer*

## **Bell Work/Warm-up**

### **In what ways do you contribute to greenhouse emissions?**

Students should first reflect on the question and then record their response individually. Next, as a table they should share what they have written. Lastly, the instructor should ask for some to share responses with the whole group.

## **Engage**

We begin with a video explaining carbon footprint.

[youtube.com/watch?v=8q7\\_aV8eLUE](https://www.youtube.com/watch?v=8q7_aV8eLUE)

## **Explore**

Students complete the carbon footprint calculator on the following website. [footprintnetwork.org/en/index.php/GFN/page/calculators](https://footprintnetwork.org/en/index.php/GFN/page/calculators). I find this calculator impactful because it estimates how many Earths would be needed if everyone lived the way that the person filling in the data did. The average student finds that more than three planets would be necessary to support the entire population this way.

## **Evaluate**

Ask students to write a response to the activity and explain how it has affected them. Will they change any actions? What can be done? Is it fair that we live this way while so many others do not? What is our moral obligation?

Later, have students get together in small groups to discuss their reactions. Lastly, we come back together as a class and discuss the take-aways from the lesson.



## Lesson 1 THEOLOGY I

### Laudato Si' Unit I

**Course** The Revelation of Jesus in Scriptures

**Grade** 9

**Lessons 1, 2** Use with Unit on Revelation

**Teaching Objective** Integrate teaching of Laudato Si' with content in Revelation Unit

**Vocabulary** Revelation, natural revelation, transcendence, immanence

### Process

Step 1: Read Laudato Si' 85 and 86 with students. Explain purpose of Encyclical.

Step 2: Direct students to use 85 and 86 as the basis for creating five content slides that show that **We can know God through creation.**

(Directions are given below for slides, however, this could easily be adapted to a physical presentation of images and text on a poster or in booklet formats.)

### Student Objective

Create a Slide Presentation: We can know God through creation.

Title Slide: Natural Revelation: We can know God through creation.

### Content Slides 2-6:

Use one direct quote from Laudato Si' on each slide. Choose an appropriate photograph to pair with the quote. It may be a close-up or a wide panorama shot from a telescope. The photographs you choose should inspire awe and wonder.

Your images should be sharp and clear. On each slide also write two to three sentences of your own that explain whether the quote refers to God's Immanence or Transcendence.

**Source Slide 7:**

List the sources of your photographs.

Step 3: (Review, Reinforcement) Have students share presentations with class or in small groups. As presentations are made, have students evaluate peers with written feedback using a simple rubric such as:

Effectiveness of photos chosen to illustrate quotes—1 2 3 4

Clarity of images—1 2 3 4

Slides complete with quote, image, explanation—1 2 3 4

## Lesson 2 THEOLOGY I

### Laudato Si' Unit II

**Course** Revelation of Jesus in Scripture

**Grade** 9

**Lessons 1, 2, 3** Use after introduction of Creation Stories, Genesis 1 and 2.

Estimated time 2-3 class sessions

### Lesson 1

**Objective** Students will identify themes of Pope Francis' Laudato Si' and build vocabulary.

**Step 1:** Lead students in reading excerpt from Evangelii Gaudium. *See page 93.* Connect to the theology of creation to include humans' connectedness to the natural world, harmony, stewardship.

Vocabulary: exploitation, stewards, desertification, swath, lament, bereft

**Step 2:** Next introduce Laudato Si' 1, 2, 10, 11, 12. Lead reading.

Vocabulary: canticle, plunder, ecology, fraternity, veneer

**Step 3:** Guide Discussion:

- What are common themes in the two documents?
- Why does Pope Francis use St. Francis in both?
- How does the Pope ask us to understand our place in God's creation?
- Analyze and identify the phrases he uses to place humans in relation to the rest of creation.
- How might we misunderstand Genesis 1 and 2?
- Why does Pope Francis refer to nature as a living being?



## Lesson 2

Activity: Laudato Si' Crossword Puzzle, *see pages to follow*

Objective: Students demonstrate understanding of themes.

Directions: Students use both readings to solve crossword puzzle by finding correct answers to crossword clues.

## Lesson 3

Objective: Students illustrate themes of Laudato Si' and generate prayer response. Create a Wordle from the excerpts read. Students may choose to include the excerpt from *Evangelii Gaudium*.

Remind them to delete paragraph numbers when they paste the text into the Wordle window.

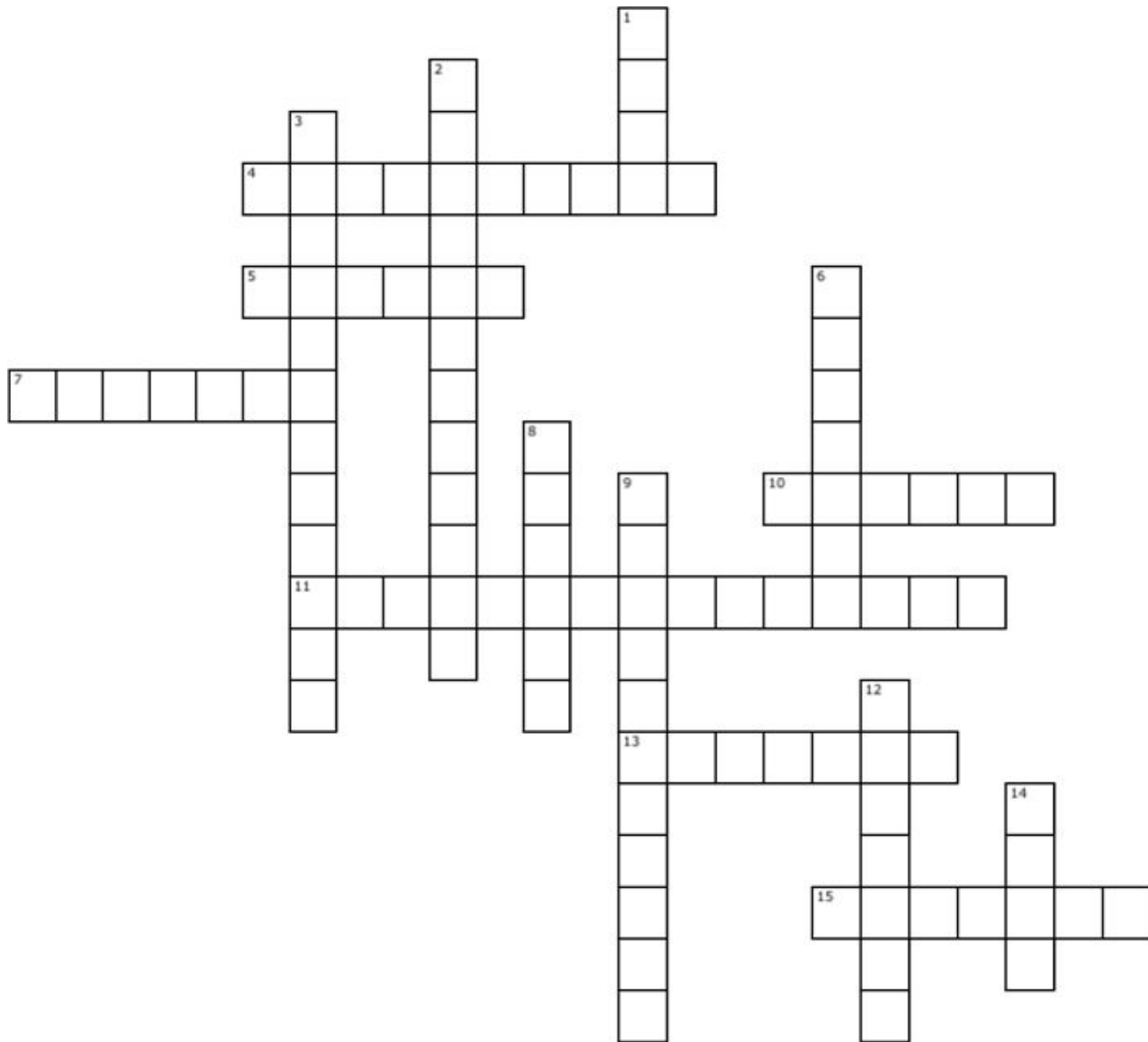
See: [wordle.net/](http://wordle.net/)

Once the word cloud is created, students should find image(s) to pair with the word cloud. Additionally, direct students to write a two- to three-sentence prayer in response to the challenges they have been thinking about in Pope Francis' teaching. Can be created as poster, printed or shared electronically, depending on teacher goals. A physical product that can be displayed in the classroom or school is recommended.

## From *Evangelii Gaudium* 2015

215. There are other weak and defenseless beings who are frequently at the mercy of economic interests or indiscriminate exploitation. I am speaking of creation as a whole. We human beings are not only the beneficiaries but also the stewards of other creatures. Thanks to our bodies, God has joined us so closely to the world around us that we can feel the desertification of the soil almost as a physical ailment, and the extinction of a species as a painful disfigurement. Let us not leave in our wake a swath of destruction and death which will affect our own lives and those of future generations. Here, I would make my own the touching and prophetic lament voiced some years ago by the bishops of the Philippines: "An incredible variety of insects lived in the forest and were busy with all kinds of tasks. Birds flew through the air, their bright plumes and varying calls adding color and song to the green of the forests. God intended this land for us, his special creatures, but not so that we might destroy it and turn it into a wasteland. After a single night's rain, look at the chocolate brown rivers in your locality and remember that they are carrying the life blood of the land into the sea. How can fish swim in sewers like the Pasig and so many more rivers which we have polluted? Who has turned the wonderworld of the seas into underwater cemeteries bereft of color and life?"

216. Small yet strong in the love of God, like Saint Francis of Assisi, all of us, as Christians, are called to watch over and protect the fragile world in which we live, and all its peoples.



**Across**

- 4. Relationship of brotherhood
- 5. An expression of sadness or loss
- 7. Living in a state of balance and well-being
- 10. Our approach to the beauty of the environment
- 11. Process of becoming dry and lifeless
- 13. One who is responsible for taking care of property
- 15. Study of the interconnections of organisms and environment

**Down**

- 1. Biblical image uniting humans to the earth
- 2. "His \_\_\_ \_\_\_ and divinity have been made known through his works" (2 words)
- 3. Francis asked to leave part of this untouched (2 words)
- 6. To use without regard for the consequences
- 8. Image of the world with whom we share our life
- 9. What we receive from the waters of the earth
- 12. Patron saint of all who study and work to care for world
- 14. St. Francis invites us to see nature as this

## Answer Key

### Across

- 4 fraternity
- 5 lament
- 7 harmony
- 10 wonder
- 11 desertification
- 13 steward
- 15 ecology

### Down

- 1 dust
- 2 eternal power
- 3 friary garden
- 6 exploit
- 8 sister
- 9 refreshment
- 12 Francis
- 14 book



## Lesson 3 THEOLOGY I

### Laudato Si' Unit III

**Course** Revelation of Jesus in the Scriptures

**Grade** 9

**Lessons 1, 2, 3, 4** Connect with Sin stories, Genesis 3-11

**Vocabulary** stewardship, personal sin, collective sin, original sin

After instruction in sin stories, growing consequences of human choice to reject God, alienation and disharmony with self, others, nature, God.

### Lesson 1

estimate two class sessions

**Step 1:** Teacher directed reading of excerpts from *Broken But Loved* by George A. Maloney, S.J., see pages 99-100

Connect to the theology of Genesis 3-11 previously established in class.

**Step 2:** Distribute *Meditation on a Broken World*, see pages 100-102. Read chorally, antiphonally. Address the bleak outcome. Is this inevitable?

**Step 3:** Student Activity: Update *Meditation on a Broken World* using Pope Francis' observations from Laudato Si'

The sections from the encyclical for student reference are noted on the student template, see pages 102-106.

Each student needs a Draft Template for brainstorming, writing and editing.

Students need text of Laudato Si'. ( I suggest this as individual assignment to encourage reading of the sections of Laudato Si' used as references. Alternative approach: Partner the students to share the burden of the reading and updating and have the partners co-write the final Meditation.) Final "Meditation" should be printed with freedom for student to choose spacing, line composition, inclusion of

any image. (After in-class work session with teacher available, final draft/presentation copy can be completed as a home assignment.)

## Lesson 2

Share the final Meditations in class, in a gallery walk or as presentations to the class. Display in the classroom.

Exit Ticket: Students must write individual responses: What have we discovered that Pope Francis is calling us to do?

## Lesson 3

estimate two class sessions

The destruction of the world cannot be our last surrender. The urging of *Laudato Si'* is to recognize and intervene while we can collectively change the destructive patterns and results of our behaviors and negligence.

So the final activity in this unit is intentionally one that is shared as a collective response and responsibility of the class.

**A.** Divide students into seven small groups or partnerships. Each group is responsible for researching the positive responses and solutions that are being addressed to the destructive force described in one of the days. Pope Francis includes many approaches, however, they are mentioned throughout the encyclical, and the reading of the entire document is not necessary. Students can use their traditional research resources in the library and online to discover ways the destruction is being reversed. Each group is to produce a poster of information and make a presentation to the class of the ways that destruction is being stopped and reversed. (This could be easily adapted as a PPT or slide presentation.)

**B. Questions to Guide Research:**

- What is the extent of the destruction?
- Find at least three responses being pursued to change the pattern of destruction.  
Research should include both local (regional) and global responses.
- What actions are being taken? What is the impact so far? What is the anticipated outcome in the future? Include a specific quote from *Laudato Si'* that challenges us to pursue solutions in this area.

**C.** Have each group present its findings in a formal presentation to the class.

**Lesson 4**

**Presentations**—After the small groups have presented their posters, put them in a display in the classroom.

**Conclusion:** What action steps will each of us commit to in changing the outcomes? Write as pledge and display in classroom in suitable place as reminders.

**Excerpt from *Broken But Loved***

George A. Maloney, S.J., Alba House, 1981

The disease is that we have placed ourselves at the center of our lives instead of God. A universal angst or anxiety fills our hearts with a sense of meaninglessness. Our immersion in pragmatic materialism has suffocated our communion with God's Spirit deeply within



our innermost self. Thus cut off from an experienced relationship with God, the Absolute Transcendent, we are adrift on a dark, stormy ocean that threatens our very meaningfulness. Not experiencing in deep adoration and worship the pure love of God for ourselves, we find it impossible to be noble and loving toward others. We immediately think of ourselves and our comforts before the happiness and well-being of others, especially if such a concern costs us a price in self-sacrifice.

***Maloney, 55-56***

Today theologians are accentuating the communal aspect of original sin and mankind's solidarity as a community in wrongdoing. Although we still retain our free will not to sin, modern thinkers stress how our freedom is affected by forces around us, stemming from societal influences that collectively have been mounting in a favoring of self-centeredness since the sin of the first man.

***Maloney, 57-58***

Jesus came into our world and still enters into our lives to bear our sins.... He is able after His death and resurrection to release His Spirit into the world to fashion a new creation, a solidarity of likeminded persons who "live by the truth and in love" (Ep 4:15).

***Maloney, 58***

### **Meditation on a Broken World**

*anonymous, quoted in Broken But Loved*

In the end, man destroyed the heaven that was called earth.

The earth had been beautiful until the spirit of man moved over it and destroyed  
All things.

And man said...

Let there be darkness...and there was darkness.

And man liked the darkness; so he called the darkness "security;"

And he divided himself into races and religions and classes of society.

And there was no evening and no morning on the seventh day before the end.

And man said...

Let there be strong government to control us in our darkness.

Let there be armies to control our bodies, so that we may learn to kill one another  
neatly and efficiently in our darkness.

And there was no evening and no morning on the sixth day before the end.

And man said...

Let there be rockets and bombs to kill faster and easier;

Let there be gas chambers and furnaces to be more thorough.

And there was no evening and no morning on the fifth day before the end.

And man said...

Let there be drugs and other forms of escape, for there is this constant annoyance--  
REALITY which is disturbing our comfort.

And there was no morning and no evening on the fourth day before the end.

And man said...

Let there be division among the nations, so that we may know who is our common  
enemy.

And there was no morning and no evening on the third day before the end.

And finally man said...

Let us create God in our image.

Let some other god compete with us.

Let us say that God thinks-- as we think.

Hates --as we hate.

And kills --as we kill.

And there was no morning and no evening on the second day before the end.

On the LAST day there was a great noise on the face of the earth. Fire consumed the beautiful globe, and there was ----- SILENCE.

The blackened earth now rested to worship the one true God;

And God saw all that man had done

And in the silence over the smoldering ruins HE WEPT.

### **Template and Working Draft: Update Meditation on a Broken World**

Use this template to revise *Meditation on a Broken World*.

Each day, you will read specific sections from Pope Francis' encyclical *Laudato Si'* to identify elements to include in the updated Meditation. Sections to read each day and the ideas to look for are noted oo help guide your thinking. Write a new meditation for each day on the lines provided.

In the end, man and woman destroyed the heaven that was called earth.

The earth had been beautiful until the spirit of humans moved over it and destroyed all things.

Seventh day before the end:

(Use pollution, waste, throwaway culture as the destructive forces, see *Laudato Si'* 20, 21, 22)

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And there was no evening and no morning on the seventh day before the end.

Sixth day before the end:

(Use climate change as destructive force, see Laudato Si' 24, 25, 26)

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And there was no evening and no morning on the sixth day before the end.

Fifth day before the end:

(Use water consumption as destructive force, see Laudato Si' 27-31)

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And there was no evening and no morning on the fifth day before the end. Fourth day before the end:

(Use loss of biodiversity as destructive force, see Laudato Si' 33 and 34)

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And there was no morning and no evening on the fourth day before the end. Third day before the end:

(Use damage to oceans and their ecosystems, see Laudato Si' 40 and 41)

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And there was no morning and no evening on the third day before the end. Second day before the end:

(Use media impact on human wisdom and understanding as destructive force, see Laudato Si' 47)

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And there was no morning and no evening on the second day before the end. Last day:

(Use global inequality as destructive force, see Laudato Si' 48 and 49)

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The blackened earth now rested to worship the one true God;  
And God saw all that man and woman had done And in the silence over the smoldering  
ruins  
GOD WEPT.

## Lesson 4 THEOLOGY I

### Laudato Si' and Corporal Works of Mercy

**Course** Jesus in the Gospels

**Grade** 9

**Lessons 1, 2. Teaching Objective** Connect traditional corporal works of mercy to the contemporary challenges and teachings of Laudato Si'. Two to three class sessions.

**Vocabulary** works of mercy, fruits of the Holy Spirit

#### Process

**Step 1** Pre-arrange students in triads.

**Step 2** Give/share link to *The Corporal Works of Mercy* by Kevin Cotter, FOCUS © 2010, provided through Maryknoll, *see page 109*. Also at:

[focusequip.org/assets/pdf/corporal-works-of-mercy.pdf](http://focusequip.org/assets/pdf/corporal-works-of-mercy.pdf)

Read/review with students, pointing out the practical examples provided as applications of the corporal works of mercy.

**Step 3** Assign a corporal work of mercy to each triad.

#### Student Objective

Create and compose a poster that illustrates the assigned corporal work of mercy and compose a brief oral presentation for the class that will include the following:

#### On the poster:

- Bold title
- A symbol for the corporal work of mercy
- A list of five practical ways we can practice this corporal work of mercy (use Cotter article or other sources)



- A quote from Laudato Si' that gives us the mandate to continue to live this way (This calls for search, analysis and interpretation by the student, since the corporal works are not explicitly listed in the encyclical.)

**And in the presentation:**

- An introduction to three different organizations or agencies in our area involved in living out this work of mercy (Internet research)

**Step 4** Direct students to divide the work and research the agencies, encyclical, and to create the poster. Of course the best collaborations will include the students' helping their partners in organizing a coherent overview for the presentation. Once the research, design and creation of poster are accomplished, students should plan to divide up the pieces to present to the class.

**Lesson 2**

Presentations! We learn from each other. Each group presents their findings, and we all learn more about the corporal works and the possibilities for living them. Each member of the triad should play a role in the presentation. In the follow-up discussion and questioning, reinforce the applicability of Laudato Si' and the ways that the fruits of the Spirit are used in the selfless giving of the corporal works.

Display the posters.

The corporal works can also be applied to our living world. Challenge students to use a quote from Laudato Si' from one of the posters to explain why we need to see our world and creation as being in need of our works of mercy.

Write your response.



## The Corporal Works of Mercy by Kevin Cotter

In Matthew 25, Jesus speaks very clearly about the judgment of the world in the last days (Matthew 25:31-46): “Then the King will say to those at his right hand, ‘Come, O blessed of my Father, inherit the kingdom prepared for you from the foundation of the world; for I was hungry and you gave me food, I was thirsty and you gave me drink, I was a stranger and you welcomed me, I was naked and you clothed me, I was sick and you visited me, I was in prison and you came to me’” (vv. 34-36). When the righteous ask when they did these things for our Lord, he responds, “Truly, I say to you, as you did it to one of the least of my brethren, you did it to me” (v. 40).

While striking, this passage supports a long tradition of charitable works to the less fortunate that can be found in various places in both the Old and New Testaments (For more, see Matthew 25:31-46; Isaiah 58:6-7; Hebrews 13:3; 1 John 3:17; Tobit 4:5-11; James 2:15-16).

Through this tradition, the Church has developed what is commonly known as the Corporal Works of Mercy :

- Feeding the hungry
- Giving drink to the thirsty
- Clothing the naked
- Offering hospitality to the homeless
- Visiting the imprisoned
- Caring for the sick
- Burying the dead

While Jesus’ command and the list above are fairly straightforward, here is a list of 35 practical ways to act out the Corporal Works of Mercy.

### Feed the poor:

- Organize church or school programs providing food for homebound elderly and sick people.
- Volunteer your time to cook and deliver wholesome food to the needy in your community.
- Support faith-based and nonprofit groups that sponsor soup kitchens and humanitarian aid for the poor.
- Never waste food; many millions of hungry people could be fed on food wasted in the U.S. alone.
- Share your meals with those who may have forgotten, or can’t afford to buy their own.

### Give drink to the thirsty:

- Learn more about the importance of ecosystems, water quality and protection of watersheds.
- Understand the basic causes of water pollution: contaminated run-off, natural and man-made disasters, acid rain, lack of sanitation and sewage treatment facilities.
- Conserve water, never take this life-sustaining resource for granted.
- Advocate for sustainable development projects to supply clean water sources at home and abroad, especially in developing countries.
- Adhere to domestic recycling programs designed to reduce environmental wastes.

**Clothing the naked:**

- Support and donate to drives run by schools, parishes and other charitable organizations that collect clothes and bedding for the local needy.
- Organize programs to provide towels and bed linens for hospitals that lack these essentials in distressed areas, particularly in developing nations.
- Act in solidarity to aid sister parishes in areas devastated by tornadoes, floods, earthquakes and hurricanes, leaving residents with virtually nothing.
- Reach out to neighbors who have lost their possessions in fires, floods or in other ways.
- Be charitable, but always remember that in giving it is most important to maintain a person's sense of dignity; no one ever should be made to feel like a "charity case."

**Visiting the imprisoned:**

- Support educational and job-training programs to rehabilitate and restore inmates as useful members of society.
- Pray for the inmates' families, because they are suffering too.
- Support parish programs to provide gifts for prisoners and their children at Christmas time.
- Encourage crime victims and victims of domestic violence to seek pastoral or secular professional counseling.
- Guard against racism; practice inclusion, not exclusion

**Burying the dead:**

- Offer daily prayers for the grace of a happy death for the terminally ill, and for the peace and comfort of surviving family and friends.
- Urge those who have particular difficulty in coping to seek pastoral or professional counseling.
- Support religious and other organizations dedicated to care for the terminally ill and those that offer grief counseling.
- Attend funeral or wake services; your presence can mean so much to survivors.
- Send appropriate Mass cards for the dead and spiritual bouquets for the living. Even a simple note with your thoughts and prayers can have a healing effect on those grieving a loss.

**Offering hospitality to the homeless:**

- Understand the need for group homes for homeless and disabled people in your community.
- Donate to religious and nonprofit secular charities that care for displaced persons.
- Volunteer your services to organizations that build affordable homes for the poor.
- Organize a parish undertaking to provide shelter and support for a needy local family.
- Remember, to provide someone with a sense of belonging is to fulfill a basic human need.

**Caring for the sick:**

- Regularly visit sick or elderly family members and friends confined to nursing homes.
- Volunteer to drive patients to treatment facilities and doctors appointments.
- Become a hospital volunteer, bringing magazines and books to patients and reading to hospitalized children.
- Offer to sit with homebound patients to provide primary care givers with time to themselves.
- Cook and deliver meals to the sick, elderly and homebound.

*Ideas provided by the MaryKnoll society. For more ideas, visit: [www.maryknollsocietymall.org/studyguides/10447\\_112.pdf](http://www.maryknollsocietymall.org/studyguides/10447_112.pdf)*

*You can visit their website at: [www.maryknoll.org](http://www.maryknoll.org)*

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## Lesson 5 THEOLOGY I

**Class** Humanities / American Literature / Romanticism

**Grade Level** 10, 11, 12

**Unit of Study** UDHR, Human condition

**Background Knowledge** Definition of Romanticism, the Romantic Movement, the premise of Encyclicals

### Learning Objective

To answer the unit/course Essential Questions

- How do the ideas of pushing or exceeding the limits of life and death, popular during Romanticism, influence the fiction of today?
- Why is it our responsibility to be humanitarians to ourselves and others?

### Educational Standards

**Reading** CCSS.ELA-LITERACY.RI.11-12.10; CCSS.ELA-LITERACY.RI.9-10.1, CCSS.ELA-LITERACY.RI.9-10.10

**Writing** CCSS.ELA-LITERACY.W.11-12.2, CCSS.ELA-LITERACY.W.11-12.9; CCSS.ELA-LITERACY.W.9-10.2, CCSS.ELA-LITERACY.W.9-10.9

### Specific Encyclical Theme

Highlight one of the following;

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption

- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

### **Encyclical Citations: VI. The Common Destination of Goods**

• **13** An “urgent challenge to protect our common home ... to bring the whole human family together to seek a sustainable and integral development, for we know that things can change.”

• **114** “Nobody is suggesting a return to the Stone Age, but we do need to slow down and look at reality in a different way, to appropriate the positive and sustainable progress which has been made, but also to recover the values and the great goals swept away by our unrestrained delusions of grandeur.”

• **171** Are international agreements and legislation the needed shift in worldwide thinking? Do we need to take “carbon credits” more seriously as “an expedient which permits maintaining the excessive consumption of some countries and sectors”?

## Opening Prayer

Prayer from the Philippines:

Lord God, creator of all the earth, you have given us the mountains and trees, the waters and the good earth which supports our crops, our animals and ourselves. Never let us lose our love for our land, which is our mother. Help us to protect the land from abuse and to enrich the soil when we abuse it. Make our mother, the earth, fruitful again.

## Anticipatory / Bell Work

**How is man affected by nature?**

Students should answer this question (in notes, on quarter sheet, or think/pair/share).

**Educate:** Have students define Romanticism. Consider, time, qualities / characteristics, and example authors / texts from the Romantic Movement.

## Class Discussion

Lecture to cover the following: In the 1830s, America began to experience the impact of the Romantic Movement that was transforming European civilization. Like the European movement of which it was an offshoot, American Romanticism was in a broad sense *a new attitude toward nature, humanity and society that espoused individualism and freedom*. Many trends characterized American Romanticism. Among the most important are:

- An impulse toward reform (temperance, women's rights, abolition of slavery)
- A celebration of individualism (Emerson, Thoreau)
- A reverence for nature (Cooper, Emerson, Thoreau)
- A concern with the impact of new technology (locomotive)

- An idealization of women
- A fascination with death and the supernatural (Hawthorne, Poe)
- Important writers that may be considered: Ralph Waldo Emerson (1803-1882): *Self-Reliance*, Henry David Thoreau (1817-1862): *Walden, Civil Disobedience*, Washington Irving (1783-1859): *The Devil and Tom Walker, Rip Van Winkle Tales*, Edgar Allan Poe (1809-1849): *The Pit and the Pendulum, The Masque of the Red Death, The Raven* and many many more, Nathaniel Hawthorne (1804-1864) *The Scarlet Letter, The House of the Seven Gables, Doctor Heidegger's Experiment, Young Goodman Brown*.

## Explore

Students should work with the following idea: *a new attitude toward nature, humanity and society that espoused individualism and freedom*. Using examples from American Literature (noted above, or from class texts, art, or theology / historical perspective), discuss ways in which authors, philosophers, artists, composers and theologians have addressed the need for a new attitude toward nature. Provide a passage/example from a current reading (fiction) in which the ideals of the Encyclical are addressing the same ideas found in literature from the Romantic Movement. Use the following questions for further discussion / evaluation of students' ideas:

- Francis calls for a broadened vision (112), "a bold cultural revolution" (114). What would that look like?
- Why does Francis say, "Doomsday predictions can no longer be met with irony or disdain" (161)?

## Evaluate

Exit Ticket: How is a movement connected to a need within society, such as the Romantic movement in the 1800s and the Encyclical *Laudato Si'*?

## Lesson 6 THEOLOGY I

**Class** Humanities / American Literature / Romanticism

**Grade Level** 10, 11, 12

**Unit of Study** UDHR, Human condition

**Background Knowledge** Read the poem *Night Funeral in Harlem* by Langston Hughes. *see: [poets.org/poetsorg/poem/night-funeral-harlem](http://poets.org/poetsorg/poem/night-funeral-harlem)*. Annotate in small groups and write a summary. What is the poem saying about poverty? What is Hughes expressing about the plight of the poor?

### Learning Objective

To answer the course Essential Questions:

- Why is it our responsibility to be humanitarians to ourselves and others?
- How do we know when humans are behaving in humanistic ways?
- What can an 18-year-old do to ensure survival of humanity?

### Educational Standards

Reading CCSS.ELA-LITERACY.RI.11-12.7, CCSS.ELA-LITERACY.RI.11-12.10; CCSS.ELA-LITERACY.RI.9-10.1, CCSS.ELA-LITERACY.RI.9-10.10

Writing CCSS.ELA-LITERACY.W.11-12.2, CCSS.ELA-LITERACY.W.11-12.9; CCSS.ELA-LITERACY.W.9-10.2, CCSS.ELA-LITERACY.W.9-10.9



## Specific Encyclical Theme

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

## Encyclical Citations

- **139** “we are faced not with two separate crises, one environmental and the other social, but rather with one complex crisis which is both social and environmental” ... there is a need for “an integrated approach to combating poverty, restoring dignity to the excluded, and at the same time protecting nature ”

- **138-143** (evidence of the “integral ecology”)
- **149**

### Opening Prayer

Prayer from the Philippines:

Lord God, creator of all the earth, you have given us the mountains and trees, the waters and the good earth which supports our crops, our animals and ourselves. Never let us lose our love for our land, which is our mother. Help us to protect the land from abuse and to enrich the soil when we abuse it. Make our mother, the earth, fruitful again.

### Anticipatory / Bell Work

Agree or Disagree: poverty, overcrowding, lack of open spaces and poor housing are related to concerns about the environment.

### Educate

Read the poem *Night Funeral in Harlem* by Langston Hughes. Annotate in small groups and write a summary. What is the poem saying about poverty? What is Hughes expressing about the plight of the poor?

Read as a class a summary of Chapter 4 of *Laudato Si' Integral Ecology* (taking turns to read). Why does Pope Francis link concerns of the environment with concerns of the poor?

### Explore

Discuss the notion of Christian spirituality in that our faith proposes a growth and fulfillment marked by moderation and the capacity to be happy with little. Love,

overflowing with small gestures of mutual care, is also civic and political, and it makes itself felt in every action that seeks to build a better world. What are examples from Hughes' poem that cite the capacity to be happy with little. Where does mutual care become more important than possessions? How do Hughes' message and Pope Francis' concern overlap?

### **Evaluate**

Exit Ticket: Throughout this Encyclical, Francis links concern for the poor with the environment. Why does he do that?

## **Lesson 7 THEOLOGY I**

**Class** Humanities / World Literature / Philosophy

**Grade Level** 11, 12

**Unit of Study** philosophy, argument, supporting argument with text

**Background Knowledge** none needed

### **Learning Objective**

To answer the course Essential Questions:

- Why is it our responsibility to be humanitarians to ourselves and others?
- What can an 18-year-old do to ensure the survival of humanity?
- What effect does environment have on an individual? How does environment affect a person?

### **Educational Standards**

Reading CCSS.ELA-LITERACY.RI.11-12.7, CCSS.ELA-LITERACY.RI.11-12.10; CCSS.ELA-LITERACY.RI.9-10.1, CCSS.ELA-LITERACY.RI.9-10.10

Writing CCSS.ELA-LITERACY.W.11-12.2, CCSS.ELA-LITERACY.W.11-12.9; CCSS.ELA-LITERACY.W.9-10.2, CCSS.ELA-LITERACY.W.9-10.9

### **Specific Encyclical Theme**

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)

- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

## Encyclical Citations 112, 114

### Opening Prayer

Lord, grant us the wisdom to care for the earth and till it. Help us to act now for the good of future generations and all your creatures. Help us to become instruments of a new creation, founded on the covenant of your love. Amen.

*- from The Cry of the Earth*

## **Anticipatory / Bell Work**

**What does it take for change to be implemented and successful?**

### **Educate**

Read the assigned excerpts from *Laudato Si'* (112, 114). Define “bold cultural revolution.” Brainstorm/discuss what has led to significant changes in other areas of humanity/community (technology, social media of late, development of transportation, assembly lines, etc.). What is Pope Francis suggesting about current trends? Why hasn't there been more significant advancement in care/concern for the environment? How has art/literature played a role in education of such issues, or in implementing change?

### **Explore**

Create a “visualize the environment” collage. Using quotes from *Laudato Si'* (in short three word or less phrases) to make a bold statement. Use photographs, magazine clippings or other printed material (preferably reused so as not to create more waste!) to create a vision of the current status of the environment. Then use phrases/words from *Laudato Si'* and any other work of literature that may address the same issues to create a stance on the environmental situation and what is needed to effect change.

### **Evaluate**

Evaluate the collages.



## Lesson 8 THEOLOGY I

**Class** World Literature / Humanities II

**Grade Level** 10, 12

**Unit of Study** UDHR, Human condition

**Background Knowledge** Students have previously read the UDHR and have selected, analyzed and evaluated 20 of the 30 articles. They have provided examples of the article in effect as well as in denial.

### Learning Objective

To answer the course Essential Questions:

- . Why is it our responsibility to be humanitarians to ourselves and others?
- . How do we know when humans are behaving in humanistic ways?
- . What can an 18-year-old do to ensure the survival of humanity?

### Educational Standards

**Reading** CCSS.ELA-LITERACY.RI.11-12.7,  
CCSS.ELA-LITERACY.RI.11-12.10; CCSS.ELA-LITERACY.RI.9-10.1,  
CCSS.ELA-LITERACY.RI.9-10.10

**Writing** CCSS.ELA-LITERACY.W.11-12.2,  
CCSS.ELA-LITERACY.W.11-12.9; CCSS.ELA-LITERACY.W.9-10.2,  
CCSS.ELA-LITERACY.W.9-10.9

### Specific Encyclical Theme

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)



- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
  - Avoid the mere accumulations of goods and pleasures
  - Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
  - Sobriety, freely and consciously lived, is liberating
  - Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
  - Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
  - Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

### **Encyclical Citations VI. The Common Destination of Goods 93**

“Whether believers or not, we are agreed today that the earth is essentially a shared inheritance, whose fruits are meant to benefit everyone. ... Hence every ecological perspective which takes into account the fundamental rights of the poor and the underprivileged...”

The Christian tradition has never recognized the right to private property as absolute or inviolable, and has stressed the social purpose of all forms of private property. ... ‘There is always a social mortgage on private property, in order that goods may serve the general purpose that God gave them.’ Consequently, ... ‘it is not in accord with God’s plan that this gift be used in such a way that its benefits favor only a few.’ This calls into serious question the unjust habits of a part of humanity.”

### **Opening Prayer**

**Prayer from the Philippines:**

Lord God, creator of all the earth, you have given us the mountains and trees, the waters and the good earth which supports our crops, our animals and ourselves. Never let us lose our love for our land, which is our mother. Help us to protect the land from abuse and to enrich the soil when we abuse it. Make our mother, the earth, fruitful again.

### **Anticipatory /Bell Work**

#### **What is property? Who owns the Earth?**

Students should answer (in notes, on quarter sheet, or think/pair/share).

### **Educate**

Have students read quoted passages from Laudato Si' and discuss in groups what is learned / gained / understood from these passages in a think / pair/share or small group discussion. Read Article 17 of UDHR.

### **Explore**

Brainstorm examples (divided up by small groups) in the world as a whole or in a designated area of the world where shared space has been affirmed and/or violated. Have each pair / group come up with at least two examples of each (affirmed/denied).

### **Evaluate**

Write a thesis statement or claim statement in which each individual determines the role of teenagers /students / citizens in sharing and/or protecting the environment. This thesis statement will ultimately lead students to creating a formal visual interpretation, timeline and evaluation of the changes of Article 17.

- . Everyone has the right to own property alone as well as in association with others.
- . No one shall be arbitrarily deprived of his property.

**For advanced level students**

When can the right to private property be subordinated to the common good?

Students should include discussion of/reference to Laudato Si', the UDHR, one text (novel or play), one poem, one work of art and two historical/current events.

You may evaluate the assignment with a rubric.

## Lesson 9 THEOLOGY I

**Class** Humanities / World Literature / Philosophy

**Grade Level** 10, 11, 12

**Unit of Study** UDHR, Human condition, philosophy

**Background Knowledge** Background information (via lecture or student presentation) on Galileo and his role as a philosopher, his impact on his community and his impact on modern society. Simplified suggested resource is the novel *Sophie's World*. Higher level students may examine, on a larger scale, his philosophy and contributions to religion/science.

### Learning Objective

To answer the course Essential Questions:

- Why is it our responsibility to be humanitarians to ourselves and others?
- What can an 18-year old do to ensure the survival of humanity?
- What are the separate roles of religion and science, and how can they dialogue and work together?

### Educational Standards

**Reading** CCSS.ELA-LITERACY.RI.11-12.7, CCSS.ELA-LITERACY.RI.11-12.10; CCSS.ELA-LITERACY.RI.9-10.1, CCSS.ELA-LITERACY.RI.9-10.10

**Writing** CCSS.ELA-LITERACY.W.11-12.2, CCSS.ELA-LITERACY.W.11-12.9; CCSS.ELA-LITERACY.W.9-10.2, CCSS.ELA-LITERACY.W.9-10.9

### Specific Encyclical Theme

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

## Encyclical Citations 199-201

### Opening Prayer

**Prayer from the Philippines** Lord God, creator of all the earth, you have given us the mountains and trees, the waters and the good earth which supports our crops, our animals and ourselves. Never let us lose our love for our land, which is our

mother. Help us to protect the land from abuse and to enrich the soil when we abuse it. Make our mother, the earth, fruitful again.

### Anticipatory / Bell Work

**In what way does science shape religion? In what way does religion shape science?**

Half the class can answer one or the other, or all can answer both.

### Educate

Discuss/review works of Galileo and the circumstances of his imprisonment. Answer the bell work question with Galileo's works in mind. Review works of Mary Shelley (*Frankenstein*) and the premise of how religion/philosophy drives or inhibits science.

Read as a class a summary of Chapter 5 of Laudato Si' primarily pp. 199-201 (taking turns to read). Discuss the separate roles of religion and science according to Pope Francis. According to Pope Francis, how can they dialogue and work together?

### Explore

What are examples of modern literature/advances in which these questions are addressed in regards to the environment? How/Where/Who? Students can research in groups, individually, or for homework, or can complete in class or have class discussion depending on time allowances.

Examine other environmental philosophers.

## **Evaluate**

Exit Ticket: Write a personal philosophy (150-300 words) in which religion and/or science plays a role in determining the future of our world.

## **Lesson 10 THEOLOGY I**

**Class** Humanities / World Literature / Philosophy

**Grade Level** 12

**Unit of Study** UDHR, Human condition, philosophy

### **Background Knowledge**

Students have previously read the UDHR and have selected, analyzed and evaluated 20 of the 30 articles. They have provided examples of the article in effect as well as in denial.

### **Learning Objective: To answer the course Essential Questions**

- Why is it our responsibility to be humanitarians to ourselves and others?
- What can an 18-year-old do to ensure survival of humanity?
- What are the separate roles of religion and science, and how can they dialogue and work together?

### **Educational Standards**

**Reading** CCSS.ELA-LITERACY.RI.11-12.7, CCSS.ELA-LITERACY.RI.11-12.10; CCSS.ELA-LITERACY.RI.9-10.1, CCSS.ELA-LITERACY.RI.9-10.10

**Writing** CCSS.ELA-LITERACY.W.11-12.2, CCSS.ELA-LITERACY.W.11-12.9; CCSS.ELA-LITERACY.W.9-10.2, CCSS.ELA-LITERACY.W.9-10.9

### **Specific Encyclical Theme**

Highlight one of the following:



- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
  - Avoid the mere accumulations of goods and pleasures
  - Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
  - Sobriety, freely and consciously lived, is liberating
  - Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
  - Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
  - Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

### **Encyclical Citations 164-165, 166-169**

### **Opening Prayer**

**Prayer from the Philippines** Lord God, creator of all the earth, you have given us the mountains and trees, the waters and the good earth which supports our crops, our animals and ourselves. Never let us lose our love for our land, which is our mother. Help us to protect the land from abuse and to enrich the soil when we abuse it. Make our mother, the earth, fruitful again.

## Anticipatory / Bell Work

**Identify a region of the world that is most in need of help, “fixing” or limitation.**

## Educate

Discuss Encyclical, 164-165. Discuss the role of the post-industrial era in relation to destruction and responsibility to our home.

- Why is there a need for a global approach?
- Is climate/environmental protection a human right?
- Can the *Universal Declaration of Human Rights (UDHR)* or other legislation be productive or effective?
- Is it a mindset or a responsibility?
- In what ways has government been effective or not effective in enacting change on global / environmental issues? Use *UDHR* Articles 1-30 as examples of the ability to enact change on a global level.

## Explore

Create Article #31 for *UDHR*. Compose the article following the structure of Articles #1-31. Cite *Laudato Si'* 166-169 in an explanatory paragraph.

## Evaluate

Article # 31. Rubric attached for evaluation.



## **Lesson 11 THEOLOGY I**

**Class** Humanities / World Literature / Philosophy

**Grade Level** 12

**Unit of Study** UDHR, Human condition, philosophy

**Background Knowledge** Student research/presentation on philosophers such as Aristotle, Plato, St. Thomas Aquinas. Basic knowledge of their philosophies and their relevance to work for the common good. This research can be basic (homework, internet search) or more extensive such as a formal presentation. The book, *Sophie's World*, is another useful document in giving a basic overview of philosophers.

### **Learning Objective**

To answer course Essential Questions:

- Why is it our responsibility to be humanitarians to ourselves and others?
- What can an 18-year-old do to ensure the survival of humanity?
- Why is faith an essential springboard to worldly enlightenment?

### **Educational Standards**

Reading CCSS.ELA-LITERACY.RI.11-12.7, CCSS.ELA-LITERACY.RI.11-12.10; CCSS.ELA-LITERACY.RI.9-10.1, CCSS.ELA-LITERACY.RI.9-10.10

Writing CCSS.ELA-LITERACY.W.11-12.2, CCSS.ELA-LITERACY.W.11-12.9; CCSS.ELA-LITERACY.W.9-10.2, CCSS.ELA-LITERACY.W.9-10.9

### Specific Encyclical Theme

Highlight one of the following;

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with

simple things and how to enjoy them

- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

**Encyclical Citations** 220-221, 233-242

### **Opening Prayer**

Lord, give us humility to remember that we are made from dirt so that we might till the dirt and love it as we love ourselves. Amen. Pray the Our Father.

### **Anticipatory / Bell Work**

What does “work for the common good” entail? Cite examples in history or from current movements in which work for the common good has been performed and/or made an impact.

## Educate

Students have completed research, readings or presentations on philosophers Aristotle and St. Thomas Aquinas. The objective of these presentations is to closely analyze one facet of their philosophy and determine the philosophers' relevance to modern society. Students/presenters can then be directed to consider the philosophies and relevance in a class discussion or individual analysis connecting one facet/relevance to Laudato Si' and Pope Francis' perspective on the environment and work for the common good.

Secondary source material can include this essay from Pinkerton, see: [theses.lib.vt.edu/theses/available/etd-042099-225243/unrestricted/chapter2a.pdf](https://theses.lib.vt.edu/theses/available/etd-042099-225243/unrestricted/chapter2a.pdf), in which “An examination of the evolution of thought regarding the common good can be helpful in understanding its dynamic quality and in understanding the origins of Pinkerton’s concept of the common good. The philosophers and examples included here are surely not inclusive but are representative of the evolution of thought on the common good. In addition, some insights of each author are used, and others are set aside, limiting discussion to the common good.”

Using a “jigsaw” classroom method, assign students to read the whole essay or a specific section individually. Then have them work in small

groups to discuss sections of it as “experts.” Each “expert” group then breaks out into new groups, composed of one section expert from each original “expert group.” Each “expert” then teaches others in this second teaching group the main details or meanings from the section. The group as a whole then works to determine an argument about the common good and the role of the individual in securing or working for the common good.

### **Explore**

Individually, students are to read *Laudato Si'*, 220-221 and 233-242, and react to the following quote: "Social love moves us to devise larger strategies to halt environmental degradation and to encourage a 'culture of care' which permeates all of society" (231). Also, Francis proposes that the natural world is integral to our sacramental and spiritual lives (233-242). How have you experienced this? Where do the philosophers from the past (Aristotle, Plato, St. Thomas Aquinas, for example) encourage a similar perspective? Cite the Pinkerton essay and *Laudato Si'*.

### **Evaluate**

In a one-page response, students are to determine how can we encourage civic and political love in the United States.





## **Lesson 12 THEOLOGY I**

**Class** Humanities / World Literature / Philosophy

**Grade Level** 11, 12

**Unit of Study** UDHR, Human condition, philosophy

### **Background Knowledge**

Knowledge of purpose and/or effect of Universal Declaration of Human Rights (UDHR). How are articles formed? Historical information (why document was enacted, timeline of change).

### **Learning Objective**

To answer the course Essential Questions:

- Why is it our responsibility to be humanitarians to ourselves and others?
- What can an 18-year old do to ensure survival of humanity?
- What are the separate roles of religion and science, and how can they dialogue and work together?

### **Educational Standards**

**Reading** CCSS.ELA-LITERACY.RI.11-12.7, CCSS.ELA-LITERACY.RI.11-12.10; CCSS.ELA-LITERACY.RI.9-10.1, CCSS.ELA-LITERACY.RI.9-10.10

**Writing** CCSS.ELA-LITERACY.W.11-12.2, CCSS.ELA-LITERACY.W.11-12.9; CCSS.ELA-LITERACY.W.9-10.2, CCSS.ELA-LITERACY.W.9-10.9

### **Specific Encyclical Theme**

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

## **Encyclical Citations 199-201**

### **Opening Prayer**

Prayer from the Philippines: Lord God, creator of all the earth, you have given us the mountains and trees, the waters and the good earth which supports our crops, our animals and ourselves. Never let us lose our love for our land, which is our

mother. Help us to protect the land from abuse and to enrich the soil when we abuse it. Make our mother, the earth, fruitful again.

### **Anticipatory / Bell Work**

**In what way does Science shape religion? In what way does religion shape science? (half the class can answer one or the other, or all can answer both).**

### **Educate**

Discuss / Review works of Galileo and the circumstances of his imprisonment. Answer the bell work question with Galileo's works in mind. Review works of Mary Shelley (*Frankenstein*) and the premise of how religion / philosophy drives or inhibits science.

Read as a class a summary of Chapter 5 of Laudato Si' primarily pp. 199-201 (taking turns to read). Discuss the separate roles of religion and science according to Pope Francis. According to Pope Francis, how can they dialogue and work together?

### **Explore**

What are examples of modern literature / advances in which in these questions are addressed in regards to the environment? How / Where / Who? Students can research in groups, individually, or for homework, or can complete in class or have class discussion depending on time allowances.

Examine other environmental philosophers.

## Evaluate

Exit Ticket: Write a personal philosophy (150-300 words) in which religion and/or science plays a role in determining the future of our world.

## Lesson 13 THEOLOGY I

**Class** Humanities / World Literature / Philosophy

**Grade Level** 11, 12

**Unit of Study** UDHR, Human condition, philosophy

**Background Knowledge** Reading of Laudato Si' 66-85, God's Creation, Reading of passages from *Tess of the D'ubervilles* excerpt and/or *Feasting, Fasting* excerpt, see page 148.

### Learning Objective

To answer the course Essential Questions:

- Why is it our responsibility to be humanitarians to ourselves and others?
- What can an 18-year old do to ensure the survival of humanity?
- What effect does environment have on an individual? How does environment affect a person?

### Educational Standards

**Reading** CCSS.ELA-LITERACY.RI.11-12.7, CCSS.ELA-LITERACY.RI.11-12.10; CCSS.ELA-LITERACY.RI.9-10.1, CCSS.ELA-LITERACY.RI.9-10.10

**Writing** CCSS.ELA-LITERACY.W.11-12.2, CCSS.ELA-LITERACY.W.11-12.9; CCSS.ELA-LITERACY.W.9-10.2, CCSS.ELA-LITERACY.W.9-10.9

### Specific Encyclical Theme

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

## Encyclical Citations 66-85

### Opening Prayer

Lord, grant us the wisdom to care for the earth and till it. Help us to act now for the good of future generations and all your creatures. Help us to become instruments of a new creation, founded on the covenant of your love. Amen.

*- from The Cry of the Earth*

### **Anticipatory / Bell Work**

**Describe a setting that had an impact on how you felt. Use imagery / sensory details to draw in your audience.**

### **Educate**

Read the assigned excerpts from *Laudato Si'* and from *Feasting Fasting, Tess*, or any other fiction novel in which setting plays a pivotal role in character development. Examine the way in which setting, in the novel, reveals pivotal information about the character or the situation.

### **Explore**

Connect the novel excerpt(s) to *Laudato Si'* and answer the question in discussion: how does environment affect a person? Cite examples from around the world, literature, art and/or students' lives.

### **Evaluate**

Write an essay in which you examine the role of setting/the world and the affect it has on a person. The essay can be catered towards a literary analysis, an argument, synthesis essay or research paper, depending on the needs of the course. Use the novel excerpt and *Laudato Si'* as primary and/or secondary sources.



## FEASTING, FASTING EXCERPT

**The following passage is from *Feasting Fasting*, a novel published in 1999 by Indian novelist Anita Desai. In the excerpt, Arun, an exchange student from India, joins members of his American host family for an afternoon at the beach. Read the passage carefully. Then write an essay in which you analyze how the author uses such literary devices as speech and point of view to characterize Arun's experience.**

It is Saturday. Arun cannot plead work. He stands despondent, and when Melanie comes to the door, dressed in her bathing suit with a big shirt drawn over her shoulders, and stares at him challengingly, he starts wildly to find excuses.

Mrs. Patton will not hear them. No, she will not. Absolutely not. So she says, with her hands spread out and pressing against the air. 'No, no, no. We're all three of us going. Rod and Daddy have gone sailing on Lake Wyola and we're not going to sit here waiting for them to come home — oh no.'

Arun must go back upstairs and collect his towel and swimming trunks. Then he follows Melanie to the driveway where Mrs. Patton is waiting with baskets of equipment — oils and lotions, paperbacks and dark glasses, sandwiches and lemonade. With that new and animated prance galvanising her dwindled shanks, she leads the way through a gap in the bushes to one of the woodland paths. Melanie and Arun follow silently. They try to find a way to walk that will not compel them to be side by side or in any way close together. But who is to follow whom? It is an awkward problem. Arun finally stops trying to lag behind her — she can lag even better — and goes ahead to catch up with Mrs. Patton. He ought to help carry those baskets anyway. He takes one from her hands and she throws him a radiant, lipsticked smile. Then she swings away and goes confidently forwards.

'Summertime,' he hears her singing, 'when the *thirty* living is eeh-zee —'

They make their way along scuffed paths through layers of old soft pine needles. The woods are thrumming with cicadas: they shrill and shrill as if the sun is playing on their sinews, as if they were small harps suspended in the trees. A bird shrieks hoarsely, flies on, shrieks elsewhere, further off — that ugly, jarring note that does not vary. But there are no birds to be seen, nor animals. It is as if they are in hiding, or have fled. Perhaps they have because the houses of Edge Hill do intrude and one can glimpse a bit of wall here or roof there, a washing line hung with sheets or a plastic gnome, finger to nose, enigmatically winking. Arun finds the hair on the back of his neck begin to prickle, as if in warning. He is sweating, and the palms of his hands are becoming puffy and damp. Why must people live in the vicinity of such benighted wilderness and become a part of it? The town may be small and have little to offer, but how passionately he prefers its post office, its shops, its dry-cleaning stores and picture framers to this creeping curtain of insidious green, these grasses stirring with insidious life, and bushes with poisonous berries — so bright or else so pale. Nearly tripping upon a root, he stumbles and has to steady himself so as not to spill the contents of the basket.



## Lesson 14 THEOLOGY I

**Class** Humanities / World Literature / Art / Philosophy

**Grade Level** 11, 12

**Unit of Study** UDHR, Human condition, philosophy

**Background Knowledge** Knowledge of purpose and/or effect of Universal Declaration of Human Rights (UDHR).

### Learning Objective

To answer the course Essential Questions:

- Why is it our responsibility to be humanitarians to ourselves and others?
- What can an 18-year old do to ensure the survival of humanity?
- What effect does environment have on technology and vice versa?

### Educational Standards

**Reading** CCSS.ELA-LITERACY.RI.11-12.7, CCSS.ELA-LITERACY.RI.11-12.10; CCSS.ELA-LITERACY.RI.9-10.1, CCSS.ELA-LITERACY.RI.9-10.10

**Writing** CCSS.ELA-LITERACY.W.11-12.2, CCSS.ELA-LITERACY.W.11-12.9; CCSS.ELA-LITERACY.W.9-10.2, CCSS.ELA-LITERACY.W.9-10.9

### Specific Encyclical Theme

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)

- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

### **Encyclical Citations 109, 124**

### **Opening Prayer**

Dear Lord, please give me the patience to make it through this busy day with all the hustle, demands and distractions of modern life. Let me find the quiet time to hear your voice and feel your calming presence. I ask this in your son's name.  
*Amen.*

### **Anticipatory / Bell Work**

Art Reflection. *Angelus* by Jean-François Millet, ca. 1859, with Matthew 5:3, “Blessed are the poor in spirit, for theirs is the kingdom of heaven.”

### **Educate**

Read Laudato Si’ 109, 124. Francis says, “We are all too slow in developing economic institutions and social initiatives which can give the poor regular access to basic resources.” (109). What does he mean? Why does this happen? Discuss connections between earthly obligations, care for the environment and its connection to employment and poverty. Why does Francis argue that any approach to integrated ecology must also protect employment (124)? Where in literature and art do we see examples of these issues within society (past or present)? Either have students research examples or provide from past learning. Some examples may include child labor, exploitation of poor or immigrants, or minimum/living wage paintings, posters and/or photographs. Examples from literature include Upton Sinclair’s *The Jungle*, the works of Sir Robert Peel, and/or Blake’s “The Chimney Sweeper” poems.

### **Explore**

Using two examples from art and/or literature, examine the role of poverty and its effect on the ability to promote or restrain progress for the earth/common good.

### **Evaluate**

Create a collage image (using small pieces of magazine cutouts or colored paper) of how environment and humanity are linked, or connect ecology and poverty in similar fashion.



## **Lesson 1 THEOLOGY II**

**Class** Living as a Disciple of Jesus Christ in Society

**Grade Level** 11, 12

**Unit of Study** I .B. 2. The Unity of the Whole Human Race: Justice Between the Generations

**Background Knowledge** None

**Learning Objective** Students will understand the importance of justice between generations.

**Educational Standards** USCCB High School Curriculum Framework

**Specific Encyclical Theme**

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them



- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

**Encyclical Citations 160 “What kind of world do we want to leave to those who come after us, to children who are now growing up?”**

### **Lesson/Activity**

#### **Prayer**

Take, Lord, and receive all my liberty, my memory, my understanding, and my entire will,

All I have and call my own. You have given all to me. To you, Lord, I return it.

Everything is yours; do with it what you will. Give me only your love and your grace,

that is enough for me. Amen.

#### **Bell Work**

. Ask students, “What kind of world do we want to leave to those who come after us, to children who are now growing up?” (Laudato Si’

160)

. Have each student list the qualities of the world they want to leave to children now growing up and those after them.

### **Activity**

- . Give students a few minutes to share their list with a neighbor.
- . Ask each pair to name a quality they agree on.
- . Have each student draw up a contract with future generations describing the world the student agrees to leave behind.



## Lesson 2 THEOLOGY II

**Class** Living as a Disciple of Jesus Christ in Society

**Grade Level** 11, 12

**Unit of Study** III. F. Solidarity: The Principle of the Common Good

**Background Knowledge** Basic knowledge of economic models

**Learning Objective** Students will understand the Catholic social teaching on private property and common use of goods/resources.

**Educational Standards** USCCB High School Curriculum Framework Specific

**Encyclical Theme**

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

## Encyclical Citations

**93 “The principle of the subordination of private property to the universal destination of goods, and thus the right of everyone to their use, is a golden rule of social conduct and ‘the first principle of the whole ethical and social order.’”**

## Lesson/Activity

### Opening Prayer

See, O merciful God, what return I, your thankless servant, have made for the innumerable favors and the wonderful love you have shown me! What wrongs I have done, what good left undone! Wash away, I beg you, these faults and stains with your precious blood, most kind Redeemer, and make up for my poverty by applying your merits. Give me the protection I need to amend my life. I give and surrender myself wholly to you, and offer you all I possess, with the prayer that you bestow your grace on me, so that I may be able to devote and employ all the thinking power of my mind and the strength of my body in your holy service, which are God blessed for ever and ever.

Amen.

### Bell Work

- . Have the students draw two overlapping circles.
- . In the circle to the left, outside of the overlapping edges, have them write their personal definition of “capitalism.”
- . In the circle to the right, outside of the overlapping edges, have them write their personal definition of “communism.”

## Lesson

Explain to the students that the Church teaches that everyone has the right to private property but also teaches that everyone has a right to the use of the world's goods/resources.

## Activity

- . Have each student insert each of the rights explained by the teacher into the circle with the definition that they believe best protects that right.
- . Have students share their circles with a neighbor.
- . Have each pair come up with ways to protect the right to private property.
- . Have each pair come up with ways to protect the right of every person to the use of the world's goods/resources.



## Lesson 3 THEOLOGY II

**Class** Living as a Disciple of Jesus Christ in Society

**Grade Level** 11, 12

**Unit of Study** V. B. 3. True and Lasting Fulfillment is Never Found in Money or Material Possessions

**Background Knowledge** None

**Learning Objective** Students will understand the Church's challenge to avoid the mere accumulations of goods and pleasures.

**Educational Standards** USCCB High School Curriculum Framework Specific

### **Specific Encyclical Theme**

Highlight one of the following;

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

**Encyclical Citations** 203 “Since the market tends to promote extreme consumerism in an effort to sell its products, people can easily get caught up in a whirlwind of needless buying and spending.” “We have too many means and only a few insubstantial ends,”



**204 “When people become self-centered and self-enclosed, their greed increases. The emptier a person’s heart is, the more he or she needs to buy, own and consume.”**

**208 “If we can overcome individualism, we will truly be able to develop a different lifestyle and bring about significant changes in society.”**

### **Lesson/Activity**

#### **Prayer**

Lord, teach me to be generous, to serve you as you deserve, to give and not to count the cost, to fight and not to heed the wounds, to toil and not to seek for rest, to labor and not to look for any reward, save that of knowing that I do your holy will. Amen.

#### **Bell Work**

Have each student inventory their purchases throughout the previous week.

#### **Lesson**

Explain to the students how excessive consumption can mask a lack of purpose.

#### **Activity**

Have groups of four design a poster encouraging other students to eliminate unnecessary spending.

## Lesson 4 THEOLOGY II

**Class** Living as a Disciple of Jesus Christ in Society

**Grade Level** 11, 12

**Unit of Study** IV. B. 2. D. Seventh Commandment: Global Inequality

**Background Knowledge** None

**Learning Objective** The student will better understand the contemporary degree of global inequality.

**Educational Standards** USCCB High School Curriculum Framework

### Specific Encyclical Theme

Highlight one of the following;

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
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- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

### Encyclical Citations

**50** “. . . a minority believes that it has the right to consume in a way which can never be universalized, since the planet could not even contain the waste products of such consumption.” “We know that approximately a third of all food produced is discarded, and whenever food is thrown out it is as if it were stolen from the table of the poor.”

**52 “. . . developing countries, where the most important reserves of the biosphere are found, continue to fuel the development of richer countries at the cost of their own present and future.”**

**“. . . developed countries ought to help pay this debt by significantly limiting their consumption of nonrenewable energy and by assisting poorer countries to support policies and programs of sustainable development.”**

**“We need to strengthen the conviction that we are one single human family.”**

### **Lesson/Activity**

#### **Prayer**

Fall in Love

By Fr. Pedro Arrupe, SJ

Nothing is more practical than finding God, than falling in love in a quite absolute, final way. What you are in love with, what seizes your imagination, will affect everything. It will decide what will get you out of bed in the morning, what you do with your evenings, how you spend your weekends, what you read, whom you know, what breaks your heart, and what amazes you with joy and gratitude. Fall in Love, stay in love, and it will decide everything.

**Amen.**

### **Lesson**

- . Explain to students that “per capita income” is calculated by dividing the country’s total income by its population.
- . Explain to students that the “per capita income” of a country is an important indicator of its citizens’ quality of life.

### Activity

- . Have students list the per capita income of the U.S. and 10 other countries of their choice.
- . Have students write next to each country they researched whether they could live on the income of its citizens.



## Lesson 5 THEOLOGY II

**Class** Living as a Disciple of Jesus Christ in Society

**Grade Level** 11, 12

**Unit of Study** IV. B. 2. A. Fourth Commandment: Civic and Political Love

**Background Knowledge** Students should know how to perform an examination of conscience.

**Learning Objective** Students will understand that we have a shared responsibility for others and the world.

**Educational Standards** USCCB High School Curriculum Framework

### Specific Encyclical Theme

Highlight one of the following;

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

### Encyclical Citations

**229 “...we must regain the conviction that we need one another, that we have a shared responsibility for others and the world, and that being good and**

**decent are worth it.”**

**230 “An integral ecology is also made up of simple daily gestures which break with the logic of violence, exploitation and selfishness.”**

### **Lesson/Activity**

#### **Prayer**

O Spirit of God, we ask you to help orient all our actions by your inspiration, carry them on by your gracious assistance, that every prayer and work of ours may always begin from you and through you be happily ended. Amen.

#### **Bell Work**

Have each student examine their conscience for any acts of selfishness towards others they may have committed within the last 24 hours.

#### **Lesson**

Explain to students that the way we treat each other influences how we care for the environment and if we treat others according to how they can benefit us, we will treat the environment the same way.

#### **Activity**

Have each student compose a prayer asking God for the grace to treat others and the environment as a gift and not merely as instruments for our own benefit. Have each student include 10 commandments for treating other people as gifts and 10 commandments for treating the environment as a gift.

## Lesson 6 THEOLOGY II

**Class** Living as a Disciple of Jesus Christ in Society

**Grade Level** 11, 12

**Unit of Study** III. G. Stewardship of God's Creation: The Crisis and Effects of Modern Anthropocentrism

**Background Knowledge** None

**Learning Objective** Students will understand that humanity must exchange its dominion over the universe for responsible stewardship.

**Educational Standards** USCCB High School Curriculum Framework

### Specific Encyclical Theme

Highlight one of the following;

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer



- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

### **Encyclical Citations**

**116 “Modernity has been marked by an excessive anthropocentrism...”**

**“...our ‘dominion’ over the universe should be understood more properly in the sense of responsible stewardship.”**

**117 “When we fail to acknowledge... a poor person, a human embryo... it becomes difficult to hear the cry of nature itself...”**

**118 “There can be no renewal of our relationship with nature without a renewal of humanity itself. There can be no ecology without an adequate anthropology.”**

**120 “Since everything is interrelated, concern for the protection of nature is also incompatible with the justification of abortion. How can we genuinely teach the importance of concern for other vulnerable beings, however troublesome or inconvenient they may be, if we fail to protect a human embryo, even when its presence is uncomfortable and creates difficulties? ‘If personal and social sensitivity towards the acceptance of the new life is lost, then other forms of acceptance that are valuable for society also wither away.’”**

### **Lesson/Activity**

#### **Prayer**

Lord, make me an instrument of your peace.

Where there is hatred, let me sow love.

Where there is injury, pardon;

Where there is discord, union;

Where there is doubt, faith;

Where there is error, truth;

Where there is despair, hope;

Where there is darkness, light;

Where there is sadness, joy.

O, Divine Master, grant that I may not so much seek to be consoled as to console:

To be understood, as to understand; To be loved, as to love:

For it is in giving that we receive,

It is in pardoning that we are pardoned.

And it is in dying that we are born to eternal life.

Amen.

### **Bell Work**

Have students reflect on whether they believe humans have dominion or responsible stewardship over the earth. Have students support their answer with examples.

### **Lesson**

Have the students read Encyclical sections 115 - 136

### **Activity**

Have the students respond to these sections by writing a letter to Pope Francis sharing their thoughts.



## **Lesson 7 THEOLOGY II**

**Class** Living as a Disciple of Jesus Christ in Society

**Grade Level** 11, 12

**Unit of Study** III. D. Preferential Option for the Poor: The Issue of Water

**Background Knowledge** None

**Learning Objective** The students will understand that access to safe drinkable water is a basic, universal human right.

**Educational Standards** USCCB High School Curriculum Framework

### **Specific Encyclical Theme**

Highlight one of the following;

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
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- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

## Encyclical Citations

**27 “We all know that it is not possible to sustain the present level of consumption in developed countries and wealthier sectors of society, where the habit of wasting and discarding has reached unprecedented levels”**

**28 “Water supplies used to be relatively constant, but now in many places demand exceeds the sustainable supply, with dramatic consequences in the short and long term.”**

**29-30 “One particularly serious problem is the quality of water available to the poor.... Yet access to safe drinkable water is a basic and universal human right, since it is essential to human survival and, as such, is a condition for the exercise of other human rights. Our world has a grave social debt towards the poor who lack access to drinking water, because they are denied the right to a life consistent with their inalienable dignity.”**

## Lesson/Activity

### Prayer

Most High, glorious God enlighten the darkness of my heart. Give me true faith, certain hope and perfect clarity, sense and knowledge that I may carry out Your Holy and true command. Amen.

### Bell Work

Have each student list and rank the items absolutely necessary for human survival.

### Lesson

Ask some students where “water” fell on their list. Explain that according to the Church water is a “basic and universal” human right since it is essential to human

survival.

### **Activity**

Have the students imagine that their city was experiencing a severe water shortage. Have the students create an imaginary journal entry describing a typical day living in such an environment. Remind students that a significant portion of the world's population lives in similar conditions.



## Lesson 8 THEOLOGY II

**Class** Living as a Disciple of Jesus Christ in Society

**Grade Level** 11, 12

**Unit of Study** IV. B. 2. E. Eighth Commandment: Technology: Creativity and Power

**Background Knowledge** None

**Learning Objective** Students will understand that technology should be used in moderation.

**Educational Standards** USCCB High School Curriculum Framework

### Specific Encyclical Theme

Highlight one of the following;

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
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- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

### Encyclical Citations

**102** “We are the beneficiaries of two centuries of enormous waves of change: steam engines, railways, the telegraph, electricity, automobiles, airplanes,



**chemical industries, modern medicine, information technology and, more recently, the digital revolution, robotics, biotechnologies and nanotechnologies.”**

**103 “Technoscience, when well directed, can produce important means of improving the quality of human life, from useful domestic appliances to great transportation systems, bridges, buildings and public spaces.”**

### **Lesson/Activity**

#### **Prayer**

May the power of your love, Lord Christ, fiery and sweet as honey, so absorb our hearts as to withdraw them from all that is under heaven. Grant that we may be ready to die for love of your love, as you died for love of our love. Amen.

#### **Bell Work**

Explain to students that technology is neither good nor evil but neutral and can be used for good or evil. Have each student list good and bad applications of a technology of their choice (e.g., nuclear power, satellite).

#### **Lesson**

Explain that technology, like all things, should be used in moderation.

#### **Activity**

Have students estimate how many waking hours of their day are saturated with technology. Have the students pair up and find portions of their day where they can reduce dependence on technology. Have each pair share with the class the results of their discussion.

## **Lesson 9 THEOLOGY II**

**Class** Living as a Disciple of Jesus Christ in Society

**Grade Level** 11, 12

**Unit of Study** III. D. Preferential Option for the Poor: The Common Destination of Goods

**Background Knowledge** None

**Learning Objective** Students will understand that the goods of creation are destined for the human race as a whole.

**Educational Standards** USCCB High School Curriculum Framework

### **Specific Encyclical Theme**

Highlight one of the following;

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
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- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
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- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
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- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

## Encyclical Citations

**93 “...the earth is essentially a shared inheritance, whose fruits are meant to benefit everyone.”**

**95 “The natural environment is a collective good, the patrimony of all humanity and the responsibility of everyone.”**

## Lesson/Activity

### Prayer

A prayer for our earth

All-powerful God, you are present in the whole universe and in the smallest of your creatures. You embrace with your tenderness all that exists. Pour out upon us the power of your love, that we may protect life and beauty. Fill us with peace, that we may live as brothers and sisters, harming no one.

O God of the poor, help us to rescue the abandoned and forgotten of this earth, so precious in your eyes. Bring healing to our lives, that we may protect the world and not prey on it, that we may sow beauty, not pollution and destruction. Touch the hearts of those who look only for gain at the expense of the poor and the earth.

Teach us to discover the worth of each thing, to be filled with awe and contemplation, to recognize that we are profoundly united with every creature as we journey towards your infinite light. We thank you for being with us each day.

Encourage us, we pray, in our struggle for justice, love and peace.

Amen.

## Bell Work

Have students create a list of what they believe to be “created needs.”

## Lesson

Explain to the students that knowing how to limit our needs is vital to happiness.

## Activity

Have students pair up and share their lists of “created needs.” Have each pair share with the rest of the class one “need” which they both considered dispensable. Have each pair come up with a comprehensive plan to eliminate one “need” by the end of the current month.

Have each pair share their plan with the rest of the class.



## Lesson 10 Theology II

**Class** Living as a Disciple of Jesus Christ in Society

**Grade Level** 11, 12

**Unit of Study** I. B. 1. A. Trinitarian *Communio* is the Pattern for Social Life:  
The Trinity and Relationship Between Creatures

**Background Knowledge** A basic understanding of the Trinity

**Learning Objective** Students will understand that proper relationships between God's creatures are patterned after the Trinity.

**Educational Standards** USCCB High School Curriculum Framework

**Specific Encyclical Theme**

Highlight one of the following;

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
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- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer

- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

### **Encyclical Citations**

**239 “For Christians, believing in one God who is trinitarian communion, suggests that the Trinity has left its mark on all creation.”**

### **Lesson/Activity**

#### **Prayer**

A Christian prayer in union with creation

Father, we praise you with all your creatures. They came forth from your all-powerful hand; they are yours, filled with your presence and your tender love.

Praise be to you! Son of God, Jesus, through you all things were made.

You were formed in the womb of Mary our Mother, you became part of this earth, and you gazed upon this world with human eyes. Today you are alive in every creature in your risen glory.

Praise be to you! Holy Spirit, by your light you guide this world towards the Father’s love and accompany creation as it groans in travail. You also dwell in our hearts and you inspire us to do what is good.

Praise be to you!

Triune Lord, wondrous community of infinite love, teach us to contemplate you in the beauty of the universe, for all things speak of you. Awaken our praise and thankfulness for every being that you have made. Give us the grace to feel profoundly joined to everything that is.

God of love, show us our place in this world as channels of your love for all the creatures of this earth, for not one of them is forgotten in your sight. Enlighten

those who possess power and money that they may avoid the sin of indifference, that they may love the common good, advance the weak, and care for this world in which we live.

The poor and the earth are crying out. O Lord, seize us with your power and light, help us to protect all life, to prepare for a better future, for the coming of your Kingdom of justice, peace, love and beauty.

Praise be to you!

**Amen.**

### **Bell Work**

Ask students whether they believe there is competition among the persons of the Trinity. Have them write their answer along with an explanation.

### **Lesson**

Explain to students that there is absolutely no competition among the persons of the Trinity and that, as God's creatures, our relationships with each other should lack competition.

### **Activity**

Have students list all the relationships between creatures that they can think of which lack competition (e.g., parent/child, teacher/student, etc.). Have students reflect on their relationships with fellow creatures. Ask students whether some of relationships are too competitive. Ask students how they can relate to fellow creatures in a manner that better resembles the non-competitive relations between persons of the Trinity.





## **Lesson 11 THEOLOGY II**

**Class** Sacraments

**Grade Level** Senior (16-17 year olds)

**Unit of Study** Liturgy and Worship in General

### **Background Knowledge**

The importance of the Word of God in the Church's liturgy.

### **Learning Objective**

Dialogue about what Pope Francis calls "our common home."

### **Educational Standards**

Doctrinal Elements of a Curriculum Framework for the Development of Catechetical Materials for Young People of High School Age, United States Conference of Catholic Bishops

### **Specific Encyclical Theme**

Highlight one of the following;

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that "less is more" (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating

- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

### **Encyclical Citations 3, 13-16, 161**

#### **Lesson/Activity**

Students will dialogue among themselves about what Pope Francis called “our common home.” In section #3 of *Laudato Si’* the Pope laid out its purpose, saying, “In this Encyclical I would like to enter into a dialogue with all people about our common home.”

Have students read this lesson’s Encyclical citations. Form students into groups of five. Tell each group to choose a facilitator and a note taker. The facilitator will moderate a discussion about our common home, making sure that dialogue is respectful and each person within the group is able to express his/her opinions. The note taker will take notes of the discussion and report to the class about what was said within the group.

Have each group discuss these questions:

- Do you think we face a global environmental crisis? If yes, then why? If no, then why not?

- What does our Catholic Christian faith tell us about how we should treat the environment?
- What do you think are root causes of environmental degradation?
- Do human beings have a unique place in the world? If yes, then describe what it is. If no, why don't you think so?
- Is humanity dependent on the environment or is the environment dependent on humanity, or both? Explain.
- What does the pope mean by "integral development?" (see Laudato Si' 13)
- What does integral development mean for humanity? What does it mean for the environment?
- Have each note taker share with the class how their respective groups answered the discussion questions. Begin with question one. After all note takers share the answers to question one, invite random students to comment. Do the same for question two and so on.

Guide the class discussion and give commentary according to Laudato Si' and any other relevant theological, philosophical or scientific knowledge you may have.

When class discussion ends, tell the students that Laudato Si' and its affect on Sacramental theology will be discussed later throughout the semester.



## **Lesson 12 THEOLOGY II**

**Class** Sacraments

**Grade Level** Senior (16-17 year olds)

**Unit of Study** Introduction to the Sacraments

### **Background Knowledge**

Aristotle's four causes, with a focus on form and matter. Also, knowledge about Liturgy and Worship.

### **Learning Objective**

Express through symbolic art an appreciation for the beauty of created goods, as well as a deeper understanding of form and matter of each of the Seven Sacraments.

### **Educational Standards**

Doctrinal Elements of a Curriculum Framework for the Development of Catechetical Materials for Young People of High School Age, U.S. Conference of Catholic Bishops

### **Specific Encyclical Theme**

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with

simple things and how to enjoy them

- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

**Encyclical Citations 22, 44-45, 97-98, 111-113, 215, 233-237**

### **Lesson/Activity**

**Please note this lesson will take more than one day to complete.**

Students will create a work of art that symbolically depicts the form and matter of each of the Seven Sacraments. A few days before assigning this activity, tell students to gather materials from their homes that otherwise would be thrown away or recycled (nonrenewable and renewable materials). They will bring these materials to school on the day of the assignment, along with whatever else they may need to create art (glue, tape, color ed pencils, etc.). Tell the students they will use the materials to create a piece of symbolic art (sculpture or the like). Their works of art must symbolically express the form and matter of the Sacraments assigned to them, respectively.

**Assign each student one of the Seven Sacraments.**

Have them read this lesson's Encyclical citations listed for this lesson. Highlight for the students section 215, in which Pope Francis talks about the importance of recognizing beauty for the sake of the environment. Have a class discussion about the readings. After the discussion, have them create their art. Remind them that the art needs to symbolically express the form and matter of the Sacraments assigned to them.

For instance, in the case of Baptism, students may use water bottles to symbolize the matter of Baptism; they may use newspaper cutouts to spell the Trinitarian Formula used for Baptism in order to symbolize the form for the Sacrament of Baptism. To symbolize the matter of the Sacrament of the Eucharist, students may use a plastic bread bag and a plastic grape bag, etc. (keep these ideas to yourself, to ensure students use their own creativity).

After they finish their art pieces, have them present and explain them to the class. Use the presentations as an opportunity to talk to the students about the form and matter of the Sacraments, highlighting the form and matter of their art. Also, show them that their works of art are examples of the beauty of all of God's creatures, even those that may seem meant to be thrown away. (You may want to talk to the students at this time about the pope's teaching on the "throwaway culture," *Laudato Si'* 22).





## **Lesson 13 THEOLOGY II**

**Class** Sacraments

**Grade Level** Senior (16--17 year olds)

**Unit of Study** Sacrament of Baptism

### **Background Knowledge**

Students need to be introduced to Sacraments in general before learning this lesson

### **Learning Objective**

Write a poem, praising the Lord for the waters of baptism and interceding for those without access to safe drinking water.

**Educational Standards** Doctrinal Elements of a Curriculum Framework for the Development of Catechetical Materials for Young People of High School Age, United States Conference of Catholic Bishops

### **Specific Encyclical Theme**

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

## **Encyclical Citations 11, 12, 27--31**

### **Lesson/Activity**

- Prayer before class.

Begin by having a student read Mark 9:41. Then pray for those in the world without safe drinking water. Ask the students if they have other prayer intentions. Then recite the Our Father.

- Have the students read this lesson's Encyclical citations. Have a class discussion about the readings.
- Have students write a 15-line poem, praising the Lord for the waters of baptism and interceding for those who do not have access to safe drinking water. Students may use any poem format or style they choose, based on their prior knowledge of poetry.
- Finally, have the students read their poems out loud to the class

## **Lesson 14 THEOLOGY II**

**Class** Sacraments

**Grade Level** Senior (16-17-year-olds)

**Unit of Study** Sacrament of the Eucharist

### **Background Knowledge**

The connection between the Incarnation, the Eucharist and Christ's union with all of creation needs to be covered first. This lesson assumes students have been introduced to the Eucharist as Sacrament, sacrifice and communion.

### **Learning Objective**

Develop an understanding that Eucharistic spirituality is intrinsically connected to ecological conversion and respect of each created being.

### **Educational Standards**

Doctrinal Elements of a Curriculum Framework for the Development of Catechetical Materials for Young People of High School Age, U.S. Conference of Catholic Bishops

### **Specific Encyclical Theme**

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that "less is more" (how to be happy with little)
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- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

## **Encyclical Citations 236, 216--221**

### **Lesson/Activity**

#### **Prayer Before Class -**

Ask students to voice their intentions. Have a student recite the following prayer:

Dear Lord, thank you for giving us the gift of the Eucharist. Help us to become transformed by this Sacrament. May we develop a spirit of openness, creativity and sacrifice toward the poor and the ailments affecting all of creation. Forgive us our sins against our brothers and sisters, including our sins against the created world. Grant us hope that one day we can work toward and realize the full development of every creature's potential, seeing in them not objects to be used, but gifts which reflect Your Trinitarian mystery. May we exercise a Eucharistic ecology, where all creatures are valued, respected and sustained within their natural environments. We ask all these things in Jesus' name. Amen.

#### **Think, Pair and Share**

Have students individually read *Laudato Si'* 236. Use questions below to stimulate a class discussion. Have students reflect quietly on each question, one at a time. Then have them discuss their responses in pairs. Then, have them share their answers with the the class.

How is the Eucharist the “living center of the universe, the overflowing core of love and of inexhaustible life”?

- What is “cosmic love”?
- How does the Eucharist join heaven and earth or God and creation?
- How is the Eucharist “a source of light and motivation for our concerns for the environment, directing us to be stewards of all creation”?

### **Mind Map**

Students will draw a mind map with the Eucharist at its center. They will be challenged to brainstorm using *Laudato Si'*, to come up with as many ecological connections as they possibly can with the Eucharist. They can work individually or in pairs. Examples of ecological connections with the Eucharist include the intimate union between the Eucharist and humanity; the Eucharist and animals; the Eucharist and water; the Eucharist and the poor; the Eucharist and the elements of the universe; and the Eucharist and any other created being. The students will have to explain the theological reasons behind each connection; how and why do these connections exist? They will also need to explain the ecological responsibilities each connection calls us to. Students can write their explanations in their notebooks. Ask the students to be ready to share some of their connections and explanations with the class.

- Have students read *Laudato Si'* 216-221.
- Pass out mind map templates or have students draw their own templates on a piece of paper.
- Instruct students to fill in their mind maps and to write explanations for their ecological connections to the Eucharist in their notebooks. Advise students to use *Laudato Si'* to discover connections.
- Have students share their mind maps and explanations with the class.



## Lesson 15 THEOLOGY II

**Class** Sacraments

**Grade Level** Senior (16-17 year olds)

**Unit of Study** Sacrament of Confirmation

### Background Knowledge

A firm understanding of the Seven Gifts of the Holy Spirit

### Learning Objective

Apply the Seven Gifts of the Spirit to the renewal of creation

**Educational Standards** Doctrinal Elements of a Curriculum Framework for the Development of Catechetical Materials for Young People of High School Age, U.S. Conference of Catholic Bishops

### Specific Encyclical Theme

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to



many other possibilities life offers

- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

## **Encyclical Citations 139, 141**

### **Lesson/Activity**

#### **I**

Help students understand that human beings are part of nature, that the call to respect and renew creation and the environment includes a call to respect and renew the human person (without discrimination). Have the students read the lesson's encyclical citations, which speak about this. Then have a class discussion based on the readings.

#### **II**

Make sure students understand the Seven Gifts of the Holy Spirit. Then have each student:

- Write a one-page essay explaining how the Seven Gifts of the Holy Spirit can help us in our efforts to renew creation.
- Write a prayer to the Lord asking for the Seven Gifts of the Holy Spirit for the purpose of renewing creation.
- Note that the prayer should petition the Lord for each of the Seven Gifts of the Spirit, naming them one at a time.

- Have the students use the following poetic format (or something similar) for each particular invocation: Grant me/us the Gift of \_\_\_\_\_ that I/we may ... (insert the purpose for requesting the gift here).



## **Lesson 16 THEOLOGY II**

**Class** Sacraments

**Grade Level** Senior (16-17 year olds)

**Unit of Study** Sacrament of Reconciliation

**Background Knowledge** An understanding of conscience and the importance of examining our conscience according to Church teaching.

### **Learning Objective**

Develop an examination of conscience according to Laudato Si', Sermon on the Mount and Ten Commandments.

**Educational Standards** Doctrinal Elements of a Curriculum Framework for the Development of Catechetical Materials for Young People of High School Age, U.S. Conference of Catholic Bishops

### **Specific Encyclical Theme**

Highlight one of the following;

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life,

otherwise it drives us to frenetic activities.

## Encyclical Citations

### Lesson/Activity

Place students into groups of three. Have each group develop an examination of conscience that could be used as an aid for the reception of the Sacrament of Reconciliation. Students will use *Laudato Si'*, Sermon on the Mount and Ten Commandments as sources. They can use other sources as well, but sources need to be in accord with the Church's Magisterial teaching, Sacred Scripture and Sacred Tradition.

Each group will choose a target audience.

Will the examination of conscience be meant for high school students, priests and religious, children, adults, businessmen, owners of manufacturing plants, etc?

The examinations of conscience should follow the traditional question-and-answer format, such as:

- Do I recycle?
- Do I live simply, so as to limit my use of non--renewable sources of energy?
- Do I live simply, but fail to work for the well-being of the poor?
- Do I work for the well-being of the poor, but fail to live simply?

Have students cite their sources. Finally, have students share their examinations of conscience with you and their peers. Encourage class discussion.

## **Lesson 17 THEOLOGY II**

**Class** Sacraments

**Grade Level** Senior (16-17 year olds)

**Unit of Study** Anointing of the Sick

### **Background Knowledge**

The matter, form and purpose of the Anointing of the Sick.

### **Learning Objective**

To discover the interconnectedness among “peace, justice and the preservation of creation.” (Laudato Si’ 92)

To recognize in the Anointing of the Sick a call to bring Christ’s healing, peace and support to the environment.

### **Educational Standards**

Doctrinal Elements of a Curriculum Framework for the Development of Catechetical Materials for Young People of High School Age, United States Conference of Catholic Bishops

### **Specific Encyclical Theme**

Highlight one of the following;

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
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many other possibilities life offers

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- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

## **Encyclical Citations 2, 17-61, 89-92 (Condensed versions 2, 19, 89-92)**

### **Lesson/Activity**

First, students will search *Laudato Si'* for references that point to interconnectedness between humanity and the environment. Give students time to do this. Then invite students to share their findings with the class. Have a class discussion about inter connectedness. After discussion, have students read this lesson's Encyclical citations.

Break the class up into groups of three. Challenge each group to identify illnesses and injustices affecting their local or global environments (identifying illnesses and injustices affecting human beings is part of this; *Laudato Si'* 91-92).

Have groups share their thoughts with the class. Write group responses as a record.

Then have each group develop concrete ways they (meaning the groups respectively) can bring Christ's healing, peace and support to the illnesses and injustices identified (not complete solutions, so much as contributions toward the renewal of nature and the environment). Highlight Christ's love given through the Anointing of the Sick. Again, have each group share their thoughts with the class. Write their responses as a record. Finally, tell the groups that you will check in with them one month from when the lesson was taught, to see if they carried out the call to bring Christ's love to the environmental problems they identified, according to the ways they developed. At the one month check-in, have a discussion about their experience with this lesson. Assess student learning according to your preference.

## **Lesson 18 THEOLOGY II**

**Class** Sacraments

**Grade Level** Senior (16-17 year olds)

**Unit of Study** Sacrament of Matrimony

**Background Knowledge** Marriage as a covenant

### **Learning Objective**

Students will explore what Pope Francis meant by a covenant between humanity and the environment (Laudato Si' Chapter 6, Part II).

### **Educational Standards**

Doctrinal Elements of a Curriculum Framework for the Development of Catechetical Materials for Young People of High School Age, U.S. Conference of Catholic Bishops

### **Specific Encyclical Theme**

Highlight one of the following

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures



- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
  - Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
  - Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

## **Encyclical Citations 115-121, 209-215**

### **Lesson/Activity**

Have students quietly read Encyclical citations 115-121, 209-215. Note for the students that the title for the second part of chapter six of *Laudato Si'* is "Educating for the Covenant between Humanity and the Environment." Then have a class discussion about some or all of the following questions (use Think/Pair/Share for this learning exercise, or have students answer questions individually before the class discussion).

### **Questions for *Laudato Si'* 115-121**

- What do you think Pope Francis means by modern anthropocentrism?  
Describe how “An inadequate presentation of Christian anthropology gave rise to a wrong understanding of the relationship between human beings and the world, (L.S. 116).”
- In what sense does Pope Francis want us to understand humanity’s “dominion” over the universe?

- Why is it (an authentic) ecology cannot exist without an adequate anthropology?
- Why is concern for the environment incompatible with justification of abortion?

### **Questions for Laudato Si' 209-215**

- Describe how humanity's relationship with the environment is covenantal and marriage-like. How can Christ's Incarnation and the way He related with nature help us to better understand this covenant?
- What should an ethics of ecology be founded upon?
- List nine good ecological habits Pope Francis encourages us to develop. Add one more good ecological habit the pope did not explicitly mention.
- Where is the primary place where an ecological education can and should take place? Why?
- Which Christian communities have a role to play in ecological education?
- Fill in the blank: "If someone has not learned to stop and admire something \_\_\_\_\_, we should not be surprised if he or she treats everything as an object to be used and abused without scruple."
- List one thing you came in contact with today that was truly beautiful. Describe it and explain why it was beautiful. How can seeing the thing's beauty help you respect it?



## Lesson 19 THEOLOGY II

**Class** Sacraments

**Grade Level** Senior (16-17 year olds)

**Unit of Study** Sacrament of Holy Orders

### Background Knowledge

Students will need to understand an ordained minister's role as a reconciler.

### Learning Objective

Write a one-page pastoral letter encouraging a divided congregation to work together in renewing humanity and the environment.

**Educational Standards** Doctrinal Elements of a Curriculum Framework for the Development of Catechetical Materials for Young People of High School Age, U.S. States Conference of Catholic Bishops

### Specific Encyclical Theme

Highlight one of the following;

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
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- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

### **Encyclical Citations 48-50, 89-92, 115-121, 137-142**

#### **Lesson/Activity**

Students write a one-page, double-spaced, typed pastoral letter to their respective congregations. They will imagine they are bishops, priests or deacons. Their congregations are divided between those who advocate for a healthy environment, but fail to value the importance of defending human life at all stages, and those who advocate for human life at all stages, but fail to defend the environment. Through their pastoral letter, students will try to help their congregations understand that, in order for their work for social justice be authentic, credible and effective, they must join hands and support one another's causes.

First introduce the lesson to students. Encourage them to use their imagination and to be creative. Then have them read the encyclical citations referenced in this lesson. When they write their pastoral letters require that they cite Scripture passages, as well as Laudato Si'. You may choose to have them read their letters in front of the class, if time permits.

## **Lesson 20 THEOLOGY I**

**Class** Sacraments

**Grade Level** Senior (16-17 year olds)

**Unit of Study** Sacraments Capstone Unit

### **Background Knowledge**

The Church's life and worship is intricately united to her care for the poor and needy (see Pope Benedict's Encyclical, *Deus Caritas Est* 22).

**Learning Objective** Explore the interconnection between the reception of the Sacraments and the Word of God, service to the poor and care for the environment.

### **Educational Standards**

Doctrinal Elements of a Curriculum Framework for the Development of Catechetical Materials for Young People of High School Age, U.S. Conference of Catholic Bishops

### **Specific Encyclical Theme**

Highlight one of the following;

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
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- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

### **Encyclical Citations 25, 48--52, 70, 82, 117, 139**

#### **Lesson/Activity**

Have students read this lesson's encyclical citations, as well as Pope Benedict's Encyclical, *Deus Caritas Est*, section 22. After students read the Encyclical citations, have a class discussion about the interconnectedness between reception of the Sacraments, service to the poor and care of creation.

Form students into groups of three. Tell them that each group will give a presentation describing how the Catholic Church, locally and globally, lives out the interconnectedness among the Sacraments, the Word of God, service to the poor and care for the environment. They will need to highlight Church teaching, as well as give concrete examples of how the Church lives up to those teachings.

(Explain that in order to give an honest presentation, they may need to point out the Church's successes and failures in this regard). Have them do research and give their presentations using poster board, Google Slides, Powerpoint or the like.

When they give their presentations open them up to class discussion.

# Lesson 1 SOCIAL STUDIES

**Class** World History

**Grade Level** 9, 10

**Unit of Study** Comparative Relations between Humans and the Environment

**Background Knowledge** Five Global Regions

## Learning Objective

State at least two factors that might be used to determine the relative well-being of a country or region.

Identify at least two potential impacts of inequitable resource distribution.

Draw connections between population growth rate and wealth, and between wealth and energy use.

## Educational Standards

### World History

**Standard 7a** Account for the growth, decline and recovery of the overall population of Afro-Eurasia and analyze ways in which large demographic swings might have affected economic, social and cultural life in various regions.

## Specific Encyclical Theme

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption



- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
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- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

### **Lesson/Activity**

Use Food for Thought pdf for lesson and activity for global region comparison.

[worldof7billion.org/wp-content/uploads/2014/08/food-for-thought.pdf](http://worldof7billion.org/wp-content/uploads/2014/08/food-for-thought.pdf)

## **Lesson 2 SOCIAL STUDIES**

**Class** World History

**Grade Level** 9, 10

**Unit of Study** Impact of Population

**Background Knowledge** Understanding of Gross Domestic Product (GDP)

### **Learning Objective**

Students will be able to compare demographic statistics, understand “averages” and interpret the social and economic significance of disparities in quality of life indicators.

### **Educational Standards**

ERA 2 Strand 2 The political, social, and cultural consequences of population movements and militarization in Eurasia in the second millennium. BCE Standard Three: Historical Analysis and Interpretation

- \* Identify the author or source of the historical document or narrative
- \* Compare and contrast differing sets of ideas, values, personalities, behaviors and institutions by identifying likenesses and differences.

### **Specific Encyclical Theme**

Highlight one of the following;

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)

- To be serenely present to each simple and small reality (either person or thing)
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- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

### Lesson/Activity

**Adapted from Lesson Plan** *populationeducation.org*

Have students compare the lifetime use of resources of an average American, an average human and an average person from Malawi, one of the world's poorest nations.

- World population reached seven billion in 2011, and Population Education debuted some new teaching activities to mark the occasion. The World of 7 Billion website is home to lots of classroom-ready, teacher-friendly activities that will get your students to actively engage in these timely issues. Lesson plans are correlated to the national content standards and Common Core State Standards. [worldof7billion.org](http://worldof7billion.org) ©2011
- Using resources at [populationeducation.org](http://populationeducation.org), have students construct and interpret dynamic graphs and discuss differences in life

expectancy, fertility rates, health, economics and total population among several different countries.

- A Girl's Life [worldof7billion.org/wp-content/uploads/2014/08/a-girls-life.pdf](http://worldof7billion.org/wp-content/uploads/2014/08/a-girls-life.pdf). Students should read this article about women's status in less developed countries. This lesson contains many resources for use in a class discussion about what they have learned. They can extend their learning with research and persuasive essays and/or book reports.



## **Lesson 3 SOCIAL STUDIES**

**Class** U.S. History & U.S. Government

**Grade Level** 11,12

**Unit of Study** Environment

**Background Knowledge** none

### **Learning Objective**

- Students will understand the Pope's Encyclical
- Students will compare the current environment law to the major issues of the Encyclical

### **Educational Standards**

Taken from The Washington State: WA State K-12 Integrated Environmental and Sustainability Education Learning Standards

Grade 11-12 Environmental and Sustainability Standards Connections ESE Standard

1: Ecological, Social, and Economic Systems. Students develop knowledge of the interconnections and interdependency of ecological, social, and economic systems. They demonstrate understanding of how the health of these systems determines the sustainability of natural and human communities at local, regional, national, and global levels. ESE Standard

2: The Natural and Built Environment. Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments. ESE Standard 3: Sustainability and Civic Responsibility. Students develop and apply the knowledge, perspective, vision,

skills and habits of mind necessary to make personal and collective decisions and take actions that promote sustainability.

### Specific Encyclical Theme

Highlight one of the following. This will be affected by the topics each group selects.

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

### Lesson/Activity

- Read article below from *Washington Post* on 10 excerpts from Pope’s Encyclical.

- Discuss the 15 World Environment topic issues from: [conserve-energy-future.com/15-current-environmental-problems.php](http://conserve-energy-future.com/15-current-environmental-problems.php)
- Compare the two documents in similarities and discuss in groups (three to four persons) possible solutions to five of the topics.
- Present topics and solutions to class using either powerpoint or poster boards presentation.

### **From the *Washington Post***

*This opinion piece is by Christiana Z. Peppard, Assistant Professor of Theology, Science, and Ethics at Fordham University.*

How does one read an encyclical? Even as an expert on Catholic social teaching, the answer to that question still eludes me.

Anyone who has glimpsed *Laudato Si': On the Care of our Common Home*, released today by Pope Francis, can see that the genre is unique. It's dramatically different from our habitual scans of texts and tweets and the sorts of messages sent with thumbs. Yet even while it requires different dexterities, reading the encyclical — the whole thing, yes — is within our grasp. Francis himself says, bluntly: "I wish to address every person living on this planet ... I would like to enter into dialogue with all people about our common home."

This bounces us to a second question: what does it *mean*? To enter into a dialogue is not the same thing as to decree from on high a particular course of action. *Laudato Si'* is an ethically nuanced, often gripping analysis of our contemporary moral and environmental predicaments — and an invitation to articulate and embrace an ecological humanism worthy of our best efforts.

**Fossil fuels are part of the point, but not all of it.**



Many commentators in the United States are tempted to equate the meaning of this document with the policy upshot — the pithy sound bite that takes a side in the bizarre partisan debacle of U.S. climate and fossil fuel policy.

Yes, Francis has some upshots regarding fossil fuels: Greenhouse gases have been emitted by industrialized nations (such as ours) at a disproportionate rate. Rates of consumption of non-renewable resources are profoundly imbalanced worldwide. Differentiated responsibilities between developing and super-developed nations (i.e., the United States) in any future climate agreements are both necessary and ethically appropriate.

And — because of his skepticism of technological and economic utopianisms (see below) — Francis is wary of cap-and-trade or carbon-pricing proposals that would merely maintain the underlying systems of environmental exploitation, without the “radical change which present circumstances require” (171). There is, he maintains, an “ecological debt” that industrialized nations owe towards the planet and to nations less developed than our own.

Skeptics and pundits take note: Renewable energy sources are a necessary goal for a morally significant transition away from fossil fuel-based energy sources. This transition should occur with due attention to transparent environmental impact assessments, the precautionary principle, and full-cost accounting that attends to the well-being of future generations. But make no mistake: This is not partisanship of an American electoral sort.

This transition is a preferential option for the poor and for the planet. It is also the pursuit of an “integral ecology,” or an expansive humanism, that realigns human actions within the frame of our ecological contexts, and our distinctive capacities for reason and self-reflection.

### **The goods of the earth: Pollution, climate change, water**

*Laudato Si'* is, in Francis' own words, a “lengthy reflection which has been both joyful and troubling” (246), structured in six movements or chapters.

**Chapter one:** “What is happening to our common home?” admits of several answers that sum up to this: we are degrading it, especially through pollution and

climate change, deterioration and overuse of water, loss of biodiversity, and the breakdown of society through global inequality, among other signs.

The problems are both spiritual and structural. The rest of the encyclical unpacks those notions, in a dance of levels of scale between that ranges from the individual to the civic, national, regional, and planetary.

**Chapter two:** “The Gospel of Creation,” turns to Biblical sources to illuminate the mandate to care for creation as a fundamental tenet of faith, attested in the Hebrew Bible and New Testament as stewardship. It is this perspective on our responsibility to God and to creation — that modern human beings have forgotten, says Francis.

Indeed, citing John Paul II as well as the Canadian Bishops and the Bishops Conference of Japan, Francis points out that Creation itself reveals God: Along with Scripture, “there is a divine manifestation in the blaze of sun and the fall of night,” as John Paul II put it at the turn of the millennium (85). Or, in St. Francis’ “Canticle of Creation”—the hymn of praise to which Francis recurs in *Laudato Si’*, “Praised be [You, O Lord],” through Brother Wind and Sister Water, and all the many beings of the earth.

The goods of the earth, continues Francis, are not meant for abuse and exploitation, but rather for sharing and inclusiveness of the least among us. And it points out that Biblical narratives demonstrate the truth that “human life is grounded in three fundamental and closely intertwined relationships: With God, with our neighbor and with the earth itself .... The harmony between the Creator, humanity and creation as a whole was disrupted by our presuming to take the place of God and refusing to acknowledge our creaturely limitations” (66).

Moreover, “the natural environment is a collective good”—not something to be held privately or exclusively for the benefit of the few at the expense of the many, now or in the future (93-95).

**Chapter three** is the most sustained and accosting indictment of contemporary humanity’s values and practices. Here, in “The Human Roots of the Ecological Crisis,” Francis (along with many so-called “secular” environmentalists) — says

that it is humanity's outsized technological and economic domination over the planet's natural bounty that is at the root of many social and environmental ills.

The rapid rise of human technological and economic prowess outpaces evolution, and "our immense technological development has not been accompanied by a development in human responsibility, values, and conscience" (105).

It may be impossible to overstate the severity and incisiveness of Francis' call to consider, and then constrain, technological and economic ideologies — or what he calls the "technocratic paradigm" (106 and following), in which technology, efficiency, and profit are seen as ends in themselves.

But, Francis warns, while this kind of framework may be a convenient default, it "ends up conditioning lifestyles and shaping social possibilities along the lines dictated by the interests of certain powerful groups." In this way, decisions that may seem incidental or instrumental "are in reality decisions about the kind of society we want to build" (107). Humanity is lost, says Francis, between hyperconsumptive and superdeveloped contexts, and regions where people lack the most fundamental of goods and opportunities.

Much blame lies with speculative finance and the contemporary economy, whose values and functions are not inherently able to protect the most vulnerable members of society or to avoid environmental degradation. A new way is needed.

### **To be human is to be in relationship, and all life must be respected**

**Chapter four** describes what is needed "for us to move forward in a bold cultural revolution" (95). With typical Francis aplomb, the pope says: "Nobody is suggesting a return to the Stone Age, but we do need to slow down and take a look at reality in a different way, to appropriate the positive and sustainable progress which has been made, but also to recover the values and the great goals swept away by our unrestrained delusions of grandeur" (114).

Laying the blame on the "modern anthropocentrism" critiqued in chapters 2 and 3, Francis elaborates that Christian views of the human being have been wrong to see humans as righteous domineers. (This humility — and ability to admit that Christian history has been wrong — is perhaps one of the reasons that Francis feels both trustworthy and relevant to a flock beyond the pews of confessing Catholics.)

“Integral ecology,” for Francis, means an attention to the necessary interaction and wholeness of relationships: with God, with other people, with Creation and with ourselves. His consistent reasoning of respect for vulnerable life finds articulation here: “When we fail to acknowledge as part of reality the worth of a poor person, a human embryo, a person with disabilities—to offer just a few examples—it becomes difficult to hear the cry of nature itself; everything is connected.” (117; see also 120).

Everything is connected, but population *per se* is not the main cause of environmental degradation, says Francis. Instead, a more complex metric is necessary, one that looks at the disordered habits of human beings and societies.

In one of the strongest paragraphs in the entire document, Francis identifies the problem as having to do with humans’ misguided and hyper-consumptive habits. These reveal the implicit assumption that we can technologically and economically dominate each other and the natural world. The same logic that “leads to the sexual exploitation of children and abandonment of the elderly,” he says, “justifies buying the organs of the poor for resale ... or eliminating children because they are not what their parents wanted. This same use and throw away logic generates so much waste, because of the disordered desire to consume more than what is really necessary” (123).

Ecological and social ills are connected. “We are faced not with two separate crises,” he says at the start of chapter four, “but rather with one complex crisis which is both social and environmental” (139).

For all its distressing details about environmental and social degradation, *Laudato Si’* manages to avoid dousing the reader in despair. This is no small accomplishment.

Any solution, he says—and he does give positive examples throughout the encyclical—“demand[s] an integrated approach to combating poverty, restoring dignity to the excluded, and at the same time protecting nature” (139). And he is clear that there is no one-size-fits-all solution: While there may be a universal mandate to care for the poor and creation, how this looks will vary depending on the particularities of context.

This point is worth emphasizing. Francis, head of the largest organized body of religious observers in the world, consistently in *Laudato Si'* takes recourse to the wisdom of people other than himself.

Sure, he draws on previous popes (especially John Paul II and Benedict XVI); but he also draws heavily on the many insights from regional bishops' conferences — in the Philippines, the United States, Brazil, and many more. In so doing, Francis makes a subtle case for the wisdom of particular places and cultures: “there is a need to respect the rights of peoples and cultures,” and not to propose uniform solutions to problems that are many-layered and particular to given places (even as there may be universal elements, as in the case of climate change).

“In this case,” he continues, “it is essential to show special care for indigenous communities and their cultural traditions. They are not merely one minority among others, but should be the principal dialogue partners, especially when large projects affecting their land are proposed” (146). The Church with Francis has come a long way from the colonial, hegemonic mentality of a universal truth articulated by European pontiffs.

**Chapter five, “Lines of Approach and Action,”** identifies contemporary mechanisms for attaining the common good — making mention of the 1992 Earth Summit at Rio de Janeiro and successful conventions on hazardous wastes, while also stating rather bluntly that at present “with regard to climate change, the advances have been regrettably few.”

Reducing greenhouse gases requires honesty, courage and responsibility, above all on the part of those countries which are more powerful and pollute the most” — presumably, one infers, with the recalcitrant U.S. Congress foremost among them (169). (“We believers,” Francis admonishes, “cannot fail to ask God for a positive outcome to the present discussions, so that future generations will not have to suffer the effects of our ill-advised delays.”)

### **The need for both conversion and renewal**

It is in **chapter six, “Ecological Education and Spirituality,”** that the pastoral tone and spiritual content of the encyclical returns. Here, as in chapters two and four, Francis is at his most constructive: identifying the multiple dimensions by

which humans can understand “ecology,” and inviting readers to consider our own histories, experiences of beauty, and attachments to particular places in order to envision a better world for ourselves, our children, and distant future generations. He writes:

“Many things have to change course, but it is we human beings above all who need to change. We lack an awareness of our common origin, of our mutual belonging, and of a future to be shared with everyone. . . . A great cultural, spiritual, and educational challenge stands before us, and it will demand that we set out on the long path of renewal” (202).

This last chapter is Francis’ prognosis, his call to spiritual discernment, and where his distinctive pastoral style shines through most clearly: the need for ecological conversion or rebirth of moral perspective—an “integral ecology” that is also an “authentic humanism.”

Above all, it is an invitation to consider how, after the abundant facts of environmental and social degradation, the ultimate question is what values we want to guide our lives. “The rich heritage of Christian spirituality, the fruit of twenty centuries of personal and communal experience, has a precious contribution to make,” he claims (216).

Catholic tradition, while distinctive and distinctly evident throughout this encyclical, is neither exhaustive nor exclusionary. With collaborative spirit and humility about the ways in which God manifests in cultures and nature, Francis draws heavily upon the teachings of the Ecumenical Patriarch Bartholomew I, as well as the Muslim mystic, ‘Ali al Khawas, and the non-religious Earth Charter as he makes a series of points about humility, gratitude, patience, responsibility, and attentiveness. These are among the ecological virtues that are also part of attaining social and environmental justice, now and in the future.

So what does this encyclical mean, given its sweeping scope and 246 paragraphs of scientific citations and spiritual calls to conversion?

The question is open. And that, of course, is precisely the point. While Francis is willing to point the way— through Scripture and tradition, through science and ethical reasoning — he offers precious few concrete answers. The task of making

“integral ecology” real is left to all who would consider what he has to say—that is, all of us whose lives depend on earth and on each other.

A quick scan for keywords, or a search for simple answers, will not yield much. The encyclical is not a checklist of how to save the planet and, in so doing, each other. Instead, *Laudato Si'* is a call to renewed, ecological humanism and moral vision in a world beset by technological and economic temptation.

## Lesson 4 SOCIAL STUDIES

**Class** American Government

**Grade Level** 12

**Unit of Study** Conservation Laws

### Background Knowledge

An understanding of the major themes in Pope’s Encyclical Laudato Si’

Understand the responsibility of government to the environment

### Learning Objective

- \* To discuss the effectiveness of environmental laws
- \* To identify the laws in place that reflect the Pope’s Encyclical Themes

### Educational Standards

**Strand 6 National Curriculum Standards**—Through study of the dynamic relationships between individual rights and responsibilities, the needs of social groups, and concepts of a just society, learners become more effective problem-solvers and decision-makers when addressing the persistent issues and social problems encountered in public life. By applying concepts and methods of political science and law, students learn how people work to promote positive societal change.

### National Technology Standards

Communicate and collaborate to learn with others.

- Interact and collaborate with others using a variety of digital tools.
- Communicate information and ideas effectively to multiple audiences using a variety of media and formats.



## Specific Encyclical Theme

Highlight one of the following.

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
  - Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
  - Sobriety, freely and consciously lived, is liberating
  - Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
  - Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
  - Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

## Lesson/Activity

### Group Activity

- \* Identify four major local/national environmental issues
- \* Study the State and or National laws affecting environmental issues
- \* Using Jason Mraz song “I Won’t Give Up”  
<http://www.azlyrics.com/lyrics/jasonmraz/iwontgiveup.html>, create a powerpoint/ slide presentation to demonstrate the effectiveness of existing laws on saving the environment and/or the need for laws to protect our environment or mixture of both. Song is played as words and photos are displayed.

## Lesson 5 SOCIAL STUDIES

**Class** Government

**Grade Level** 12

**Unit of Study** Role of Regulatory Agencies

### Background Knowledge

- Understand Role of government in relationship to protecting basic human rights
- Federalism

Learning Objective:

- Discuss the purpose of the Clean Air Act
- Identify parts of law that affect local air quality- city and state
- Compare/Contrast State vs. National responsibilities.

### Educational Standards:

**"How Does the Government Established by the Constitution Embody the Purposes, Values, and Principles of American Democracy?** How are power and responsibility distributed, shared and limited in the government established by the U.S. Constitution? How is the national government organized and what does it do? How are state and local governments organized and what do they do?

**"What Are the Foundations of the American Political System?** What values and principles are basic to American constitutional democracy?"

### Specific Encyclical Theme

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
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- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

### Lesson/Activity

- Read Clean Air Act

<http://www.epa.gov/sites/production/files/2015-08/documents/peg.pdf>. In groups of two to three, identify parts of Act that deal specifically with local/state issues.

- Research your state’s policy on Clean Air.
- Research recent news articles in relationship to Clean Air Act.

Here’s an example from Arizona.

<http://azcapitoltimes.com/news/2015/05/28/restored-clean-water-act->

[protections-will-benefit-millions-of-arizonans/](#). Do the five Ws and the H on the article. Present findings to class.

- Project: Come up with slogan, poster, or give political talk persuading public/business to change their practices to improve quality of life.



## **Lesson 6 SOCIAL STUDIES**

**Class** U.S. History

**Grade Level** 11

**Unit of Study** Environmental Impact in U.S. and our Response

**Background Knowledge** Human rights to basic needs

### **Learning Objective**

Identify and discuss the major environmental issues facing contemporary U.S.

### **Educational Standards**

National Standard & AZ. CORE Concept 10 PO3: “They can hone their ability to think about the American political system by exploring and evaluating debates over government’s role in the economy, environmental protection...”

### **Specific Encyclical Theme**

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them

- Sobriety, freely and consciously lived, is liberating
- Learn that happiness is to know how to limit our needs and to be open to many other possibilities life offers
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- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

### Lesson/Activity

- Have students read this article on the Love Canal and identify the five Ws and H. <http://www.epa.gov/aboutepa/love-canal-tragedy>.
- In groups of two to three, have students discuss the effect of this environmental disaster.
- Research the EPA and find additional environmental issues both past and present.
- Make a timeline of five issues for presentation to the class. Include date, place, photos result. Present.
- Relate current environmental issues. Predict outcome/solutions.

## **Lesson 7 SOCIAL STUDIES**

**Class** United States History (2nd Semester)

**Grade Level** 11

**Unit of Study** Environmental Movement Post World War II

Length of time (two 50-minute periods)

### **Background Knowledge**

Pre: Model Comparison of Environment Impact from previous units; read assigned reading from text and handouts, vocabulary, reading from encyclical

### **Learning Objective**

Understand the five Ws and H of environmental laws and evaluate, based on the noted sections from Encyclical, the success/need of the program.

### **Educational Standards**

#### **Geography**

Standard 4: Understands the physical and human characteristics of place.

Standard 12: Understands the patterns of human settlement and their causes

Standard 14: Understands how human actions modify the physical environment

#### **History**

- Standard 1: Understands and knows how to analyze chronological relationships and patterns
- Standard 2: Understands the historical perspective

### **Specific Encyclical Theme**

Highlight one of the following.

- Recognition that the world is a gift (gratitude and graciousness)



- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
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- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities.

**Encyclical Citations 111, 139, 140, 141, 142**

**Lesson/Activity**

Prayer

- Students using Chromebooks will look over timeline of MODERN ENVIRONMENTAL MOVEMENT IN U.S. HISTORY for the time period assigned (1st -1948-1958, 2nd- 1960-1970 etc.)  
<http://www.pbs.org/wgbh/americanexperience/features/earth-days-modern-environmental-movement/>
- Students in table groups will choose five dates from their assigned era to research and present to class.
- Students will present information in creative format—poster, powerpoint—showing/discussing why the program developed and success/failure.
- Class will discuss and vote on the value of program in relationship to impact on environment and humanity.

### **Exit Activity**

Reflect in a creative format (poem, paragraph, acronym ) the need for humanity and environment to co-exist.



## Lesson 8 SOCIAL STUDIES

**Class** Economics

**Grade Level** 11-12

**Unit of Study** Environmental Quality

**Background Knowledge** Understanding of key economics terms: opportunity cost, scarcity, choice, cost/benefit analysis, trade off

### Learning Objective

Understand that choice is part of quality of life. Evaluate how all decisions are choices and that there will be "winners and losers" affected by the choice.

Discuss role of government in decision process.

### Educational Standards

#### National Content Standards Addressed

**Standard 1:** Productive resources are limited. Therefore, people cannot have all the goods and services they want. As a result, they must choose some things and give up others.

**Standard 3:** Different methods can be used to allocate goods and services. People acting individually or collectively through government must choose which methods to use to allocate different kinds of goods and services.

### Specific Encyclical Theme

Highlight one of the following:

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)

- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)
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- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

### Lesson/Activity

- Follow the lesson plan from the Foundation for Teaching Economics.  
[fte.org/teacher-resources/lesson-plans/eelessons/environmental-quality-is-a-choice](http://fte.org/teacher-resources/lesson-plans/eelessons/environmental-quality-is-a-choice)
- Direct student in this activity.

[fte.org/teacher-resources/lesson-plans/eelessons/site-selection-a-land-use-simulation](http://fte.org/teacher-resources/lesson-plans/eelessons/site-selection-a-land-use-simulation)

## **Lesson 9 SOCIAL STUDIES**

**Class** Economics

**Grade Level** 11-12

**Unit of Study** Water Conservation

Length of time (two 45-minute lessons), can be adapted

### **Background Knowledge**

Theory of supply and demand, market prices, scarcity, incentives

### **Learning Objective**

- Understand relevance of economic terms to a viable current issue
- Discover ways to conserve and responsibly use needed resources

### **Educational Standards**

- Standard 4: People respond predictably to positive and negative incentives
- Standard 8: Prices send signals and provide incentives to buyers and sellers. When supply or demand changes, market prices adjust, affecting incentives

### **Specific Encyclical Theme**

Highlight one of the following.

- Recognition that the world is a gift (gratitude and graciousness)
- Discover our interconnectedness (we are connected to one another)
- Deep enjoyment of life, free of obsession with consumption
- To discover that “less is more” (how to be happy with little)
- To be serenely present to each simple and small reality (either person or thing)

- Avoid the mere accumulations of goods and pleasures
- Appreciate each person and each thing, learning in familiarity with simple things and how to enjoy them
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- Find pleasure and satisfaction in fraternal encounters, in service, in developing gifts, in music and art, in contact with nature, in prayer
- Learn to deal with the sense of imbalance (frustration) as a part of life, otherwise it drives us to frenetic activities

### Lesson/Activity

Review or introduce class definitions of:

- supply and demand
- market prices
- scarcity
- incentives
- human rights

Have students research national current events regarding the issue of Water Conservation.

Be sure that variety is included—local, state, and national (other states). Have a random drawing of areas to research to save time.

Work in groups of two to three. Allow 20 minutes. Have students present the five Ws and the H (who, what, when, where, why and how) of topic. Draw comparisons/contrasts between areas. Identify common theme. (Have students do research and pull articles for homework identifying five Ws and H. In class, randomly choose students to present and discuss common themes. This will cut time to half hour.)

**Use Attached Lesson 2 Activity to end the lesson**

Closure: In groups, come up with a solution on how to conserve water at school and at home or create posters educating classmates on the importance of water conservation.





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