

Name: _____

Class: _____

Date: _____

HW- Unit 7 Study Guide

This Study Guide is due June 7th. You will need to visit www.MrAscience.com to answer many of the questions!

Topics:

1. The Tragedy of the Commons
2. Global Warming
3. Deforestation
4. Dirty Energy
5. Waste & Litter
6. Overpopulation

	<u>April 25:</u> Intro to Environmental Science H.W. Take 5	<u>April 26:</u> The Candy Fishing Lab H.W. None	<u>April 27:</u> The Tragedy of the Commons H.W. Read Article	<u>April 28:</u> The Global Warming Debate H.W. None	<u>April 29:</u> Will Daniels, PhD presents... The Truth About Global Warming H.W. None
	<u>May 2:</u> The Problem With CO ₂ Is... H.W. Finish Post-Lab	<u>May 3:</u> 6 th Grade MCAS Review	<u>May 4:</u> 6 th Grade MCAS Review	<u>May 5:</u> 7 th Grade MCAS Review	<u>May 6:</u> 7 th Grade MCAS Review
	<u>May 9:</u> Global Warming Lab H.W. Finish Post-Lab	<u>May 10:</u> Math MCAS Mercury Rising H.W. None	<u>May 11:</u> Math MCAS Mercury Rising H.W. None	<u>May 12:</u> Waste & Litter: Lecture H.W. None	<u>May 13:</u> Waste & Litter: Toxic Waste H.W. Checkpoint Quiz
	<u>May 16:</u> Science MCAS A Year Outside H.W. None	<u>May 17:</u> Science MCAS A Year Outside H.W. None	<u>May 18:</u> Deforestation: Board Game Day #1 H.W. Finish Post-Lab	<u>May 19:</u> Deforestation: Lecture H.W. None	<u>May 20:</u> Deforestation: Board Game Day #2 H.W. Finish Post-Lab
	<u>May 23:</u> Dirty Energy Lecture H.W. None	<u>May 24:</u> Unit 7 Vocab H.W. None	<u>May 25:</u> Unit 7 Vocab H.W. None	<u>May 26:</u> Blowing in the Wind H.W. Finish B.I.T.W.	<u>May 27:</u> Great East Field Trip
	<u>May 30:</u> Memorial Day H.W. Stand Up for the Environment	<u>May 31:</u> Overpopulation Lecture H.W. Stand Up for the Environment	<u>June 1:</u> Overpopulation Lab H.W. None	<u>June 2:</u> An Inconvenient Truth H.W. None	<u>June 3:</u> An Inconvenient Truth H.W. Study Guide (due 6/8)
	<u>June 6:</u> Science Symposium H.W. Study Guide (due 6/8)	<u>June 7:</u> Unit 7 Test H.W. None	<u>June 8:</u> Washington DC Field Trip	<u>June 9:</u> Washington DC Field Trip	<u>June 10:</u> Washington DC Field Trip

Day-by-Day Recap:

<p><u>April 25:</u> Intro to Environmental Science</p>	<p>Why does Mr. A consider Environmental Science to be the most important branch of science?</p> <p>Because it's the science of the planet we live on. Issues like global warming effect everyone, and education is the first step toward solving them!</p>
<p><u>April 26:</u> Candy Fishing Lab</p>	<p>During the lab, what were the positive and negative effects of taking an extra fish?</p> <p>Positive = more food for you</p> <p>Negative = less baby fish next year, for everyone</p>
<p><u>April 27:</u> The Tragedy of the Commons</p>	<p>What is The Tragedy of the Commons?</p> <p>When the positive, short-term effects go to an individual, while the negative, long-term effects are spread out to the group (ex. overfishing).</p>
<p><u>April 28:</u> The Global Warming Debate</p>	<p><i>Now that you know a bit more about Global Warming, rewatch the Bill Nye video. Feel free to get angry, upset, or depressed.</i></p>
<p><u>April 29:</u> The Truth About Global Warming</p>	<p>What are the four arguments that Will Daniels, our guest speaker, made about Global Warming?</p> <p>1. The climate is changing quickly.</p> <p>2. Increased greenhouse gasses are the cause.</p> <p>3. The burning of coal and oil by humans is the source of the extra greenhouse gasses.</p> <p>4. The change will be bad for humans.</p>
<p><u>May 2:</u> The Problem With CO₂ Is...</p>	<p>At the end of the video, who had the best response, Ryan, Amy, or Lizzie?</p> <p>Amy's was short and sweet, and Lizzie's was tremendously detailed... but Ryan has phenomenal hair.</p>

<u>May 9:</u> Global Warming Lab	<p>The amount of light never changed, so why did the boxes heat up?</p> <p>The tape prevented the heat from escaping... just like greenhouse gases trap heat on Earth!</p>
<u>May 10-11:</u> Mercury Rising	<p>If all of Antarctica melted, how much would sea levels rise?</p> <p>About 230 ft.</p>
<u>May 12:</u> Waste & Litter	<p>How is littering an example of The Tragedy of the Commons?</p> <p>The positive effects go to the litterer (they get rid of the trash) while the negative effects (it's ugly, it hurts animals, it clogs the ocean) are spread out to everyone! In the long term, litter has even <u>hurt the fishing industry</u>.</p>
<u>May 13:</u> Toxic Waste	<p>What are two major health effects caused by toxic waste?</p> <p>Cancer and birth defects.</p>
<u>May 16-17:</u> A Year Outside...	<p>Which of the five items decomposed and which did not?</p> <p>Decomposed = apple, paper</p> <p>Did not decompose = water bottle, grocery bag, and Styrofoam tray</p>
<u>May 18:</u> Deforestation Board Game – Day 1	<p>The first time we played the game, most of us used the strategy of “clear-cutting” because...</p> <p>In the short term it was a great way to make money!</p>
<u>May 19:</u> Deforestation Lecture	<p>Which country has forestry laws and which does not?</p> <p>The Dominican Republic does, Haiti does not.</p>

<u>May 20:</u> Deforestation Board Game – Day 2	<p>What was the key to winning the board game when we played it <u>with</u> forestry laws?</p> <p>Because there was a penalty when trees did not grow back, you had to think long term. By cutting down trees in small patches, you could allow them to regrow quickly.</p>
<u>May 23:</u> Dirty Energy Lecture	<p>What percentage of the world's energy is produced by:</p> <p>Coal? About 27%</p> <p>Oil? About 29%</p> <p>Natural Gas? About 23%</p> <p>Hydro + Wind + Solar? About 14%</p>
<u>May 24-25:</u> Unit 7 Vocab	<p><i>Review the completed vocabulary web (posted as a PDF).</i></p>
<u>May 26:</u> Blowing in the Wind	<p>How many windmills would it take to power Marshfield?</p> <p>The answer, my friend, is blowing in the wind...</p> <p>(See Page 717 in your binder).</p>
<u>May 31:</u> Overpopulation Lecture	<p>Explain how overpopulation is an example of the Tragedy of the Commons.</p> <p>The positive effects go to one specific family, while the negative effects (ex. pollution) are spread out... this is why education is so important!</p>
<u>June 1:</u> Overpopulation Lab	<p>In the year 1600, there were about 400 million humans; today there are 7 billion. Why has the issue of overpopulation arisen so suddenly?</p> <p>It's exponential growth... the more organisms there are, the more they reproduce!</p>
<u>June 2-3:</u> An Inconvenient Truth	<p>Teamwork and education are two solutions to the Tragedy of the Commons. Explain how Al Gore's movie (<i>An Inconvenient Truth</i>) is an example of one of these solutions.</p> <p>He made the movie to educate people about global warming!</p>