

Name:

Class:

**Grade 8 SCIENCE – GUIDED NOTES**

**Chapter 5 – Climate**

**Lesson: 3– Recent Climate Change**

**Pages: 171 - 176**

Page Number	Title/Sub-Title	Guided Notes
171	Regional and Global Climate Change	What has happened to global temperatures over the past 100 years?
172	Human Impact on Climate Change	What is global warming?  What is the IPCC?  In 2007, what did the IPCC conclude about global warming?  What are some human activities that can increase the release of greenhouse gases into the atmosphere? 1 2
172 - 173	Greenhouse Gases	What are greenhouse gases?  What do greenhouse gases help the Earth do?  What would happen to the Earth without greenhouse gases?  List 3 types of greenhouse gases from the reading. 1 2 3  What has happened to CO <sub>2</sub> levels over the past 120 years?  <b>Identify three natural sources of carbon dioxide (CO<sub>2</sub>).</b> <b>1.</b> _____ <b>2.</b> _____ <b>3.</b> _____

What are some human caused sources of increased Carbon Dioxide CO<sub>2</sub>?

What is deforestation?

How does deforestation affect the global climate?

According to the *Food and Agricultural Organization of the United Nations*, what percentage of carbon dioxide is released due to human activities?

**Key** Recall two human-caused sources of carbon dioxide (CO<sub>2</sub>).

Human sources



173

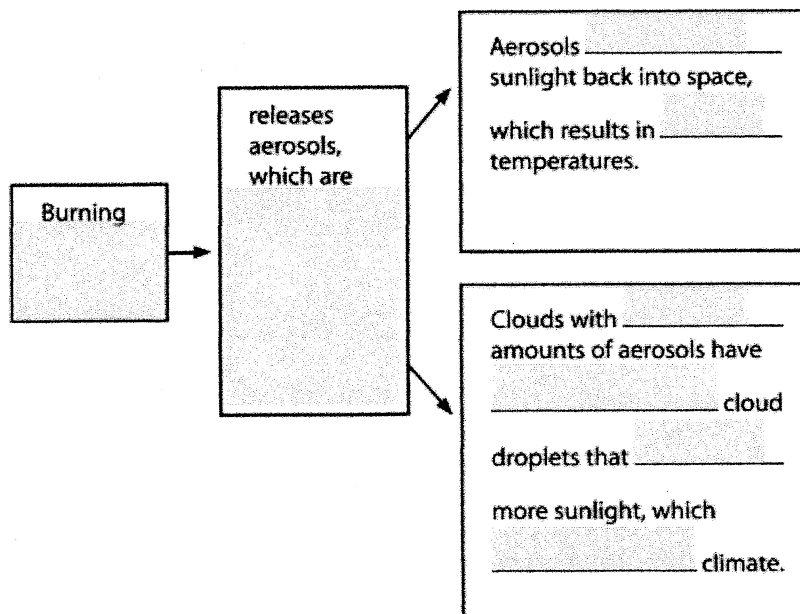
Aerosols

What other substance does the burning of fossil fuels release into the atmosphere?

What are aerosols?

What can aerosols potentially do to the climate over time?

**Key** Explain how aerosols are released into the atmosphere.



174	Climate and Society	<p>How can a changing climate impact society?</p> <p><b>Identify the problems climate change poses for society.</b></p> <table border="1"> <thead> <tr> <th>Cause</th> <th>Effect</th> </tr> </thead> <tbody> <tr> <td>_____ and _____</td> <td>food and water shortages</td> </tr> <tr> <td>excessive rainfall</td> <td></td> </tr> </tbody> </table>	Cause	Effect	_____ and _____	food and water shortages	excessive rainfall	
Cause	Effect							
_____ and _____	food and water shortages							
excessive rainfall								
174	Environmental Impacts of Climate Change	<p>Warmer temperatures can cause water vapor to evaporate from the ocean's surface. How can this increased water vapor affect N. and S. America?</p> <p>What two things, caused by increasing temperatures, can cause sea levels to rise?</p> <p>1</p> <p>2</p>						
175	Predicting Climate Change	<p>What is a global climate model (GCM)?</p> <p>How are GCM's and Weather forecast models different?</p> <p>What is one drawback of GCM's?</p> <p>By 2100, most GCM's predict the temperature to rise by what range?</p>						
176	Human Population	<p>What was Earth's population in the year 2000?</p> <p>What is the predicted population for the year 2050?</p>						

**Describe** two activities of increasing human populations that might affect climate.

1. \_\_\_\_\_

2. \_\_\_\_\_

176

**Ways to  
Reduce  
Greenhouse  
Gases**

What is one way we can reduce greenhouse gases?

How much can we reduce automobile emissions by using hybrid vehicles?

What is "green building"?

What are three ways YOU can help control greenhouse gases and pollution?

1

2

3