**Land Use**

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­­­­­­­\_

SWBAT: Differentiate between renewable and nonrenewable resources. Discuss the positive and negative consequences of different land uses.

Natural Resource: ­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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|  | **Renewable Resource** | **Nonrenewable Resource** |
| **Definition** |  |  |
| **Examples** |  |  |

NC Forestry Resources (List 2): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

NC Agriculture Resources (List 3): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| Positive Consequence (2) | **What is Industrialization?** | Negative Consequences (3) |
|   | Introduction of: Large-scale new manufacturing, advanced technology and other money making activities into an area, society, country, etc.**C:\Users\Sarah Pannill\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\GY75SCYD\REVOLUCIÃ“N_INDUSTRIAL2[1].png** |  |
| Positive Consequence (2) | **What is Urbanization?** | Negative Consequences (4) |
|  | New towns and cities are formed:* Population becomes larger
* More people live and work in central area
 |  |

**Heat Islands:** A city that has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_ due to having asphalt, buildings, and other dark structures that absorb and hold heat longer than natural environments



Heat Island

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| **Consequences of Heat Islands** | **Heat Island Mitigation** |
| Negative * \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: 1-10 degree Fahrenheit
* Increased Energy Demand
 | In order to combat heat island:*

 *
 |

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| Positive Consequences (2) | **What is Deforestation?** | Negative Consequences (3) |
|  | Natural forests are cleared through logging and/or burningSince 1970, 20% of the Amazon Rainforest has been cut down. |  |

**Obtaining Energy Resources: Mining and Reclamation**

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

SWBAT: Discuss mining methods and restoration.

NC Mining Resources (List 3): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Underground** **Mining** | **Surface Mining Methods** |
| * Drift Mine
* Slope Mine
* Shaft Mine
 | http://www.mine-engineer.com/mining/OpnPit_Dw.jpg\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: Machines are used to dig large holes in the ground and remove the ore. | C:\Users\Sarah Pannill\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\NUSJL7U4\Bulldozer[1].jpg\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: Huge bulldozers and other machines are used to clear away large strips of the Earth’s surface.  |

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| **Effects of Mining** | **How to reduce destructive effects…** |
| 1. Disruption of the land’s surface.
2. Waste materials left behind.
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Uses large amounts of energy.
 | 1. **Reclamation**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Re-using or recycling.
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Stiff fines or fees.
 |

 

**Obtaining Energy Resources: Fossil Fuels**

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

SWBAT: Describe fossil fuels, how they formed, and identify ways to conserve limited supplies.

Fossil Fuels

* Main energy sources that are formed from the remains of plants and animals.
* Energy released when burn🡪 runs cars, machinery and generators.

Fossil fuels are also the major source of air pollution and therefore, the major contributor to global warming!

Increasing Energy

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

Definition: A soft organic material consisting of partly decayed plant matter with deposited minerals

Extraction Methods:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Definition:

Petroleum

Hydraulic Fracturing (Fracking):

Technique for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ natural gas from “tight” rock (\_\_\_\_\_\_\_) structures \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Definition:

Natural Gas

* Contains carbon and hydrogen
* Refined as gasoline, kerosene, lubricants, etc.
* Used to heat homes, run cars, in **plastics**, fertilizers, dyes, medicines…
* Must drill wells to tap source
* Often found with natural gas

Coal

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* varies in the amount of carbon (more carbon = more energy)
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* at the present rate of use it could last hundreds of years…maybe

Fossil Fuels

**Alternative Energy**

Date: \_\_\_\_\_\_\_\_\_\_\_\_

SWBAT: Identify and describe types of alternative energy.

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| Solar Energy: |
| Advantages | Disadvantages | Practical for NC? |
|  |  |  |
| Solar Energy Collection:1. Active Solar – Collect solar heat
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Southern facing windows
3. Photovoltaic Cells – Convert light into electricity
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Focus light onto water tanks to create steam
 |

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| Nuclear Energy: |
| Advantages | Disadvantages | Practical for NC? |
|  |  |  |

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| Wind Energy: |
| Advantages | Disadvantages | Practical for NC? |
|  |  |  |

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| Hydroelectric Energy: |
| Advantages | Disadvantages | Practical for NC? |
|  |  |  |

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| Geothermal Energy: |
| Advantages | Disadvantages | Practical for NC? |
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| Tidal Energy: |
| Advantages | Disadvantages | Practical for NC? |
|  |  |  |

|  |
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| Biomass Energy: |
| Advantages | Disadvantages | Practical for NC? |
|  |  |  |