Name: _____ Date: _____ Period: ____

# Earth/Environmental Science Homework & Test Review

## Week 3: April 20th to April 24th
## DUE DATE: Friday, April 24th

**Weekly Reminders Checklist:**

☐ **Test** on concepts from Homework 1, 2, and 3 as well as Pre/Post Survey on Climate Change, Carbon Cycle, Mitigation Plan and Current Event: CA Drought is on Thursday April 23rd.

☐ **Notebook Check** is on Friday, April 24th: Warm-Ups, Updated Table of Contents, Climate Variability, Pre/Post Survey on Climate Change, Mitigation Plan and Current Event: CA Drought.

☐ Have you checked PowerSchool to see if you have any missing assignments?

**Research Questions for this Week:** Conduct your own research using the library, textbook, classroom computers and internet resources to answer the following questions.

**Earth Day**

**1. When is Earth Day this year?** (Month and Day) _____

**2. When was the first Earth Day celebration in the United States?** (Month, Day, Year) _____

**3. How do you think the celebration of Earth Day has helped in preventing pollution?**

_____

_____

_____

**Recycling**

**4. Draw the universal symbol for recycling:**

**5. Identify the following materials as recyclable (R) or not recyclable (NR).**

*Helpful Resources:* http://www.wm.com/thinkgreen/what-can-i-recycle.jsp
http://www.energysavings.com/blog/10-things-you-cant-throw-in-your-recycling-bin

| | | | | | |
|---|---|---|---|---|---|
| **Aluminum Cans** | | **Paper** | | **Milk Jug** | |
| **Cardboard** | | **Ceramics** | | **Plastic Water Bottle** | |
| **Heat-Resistant Glass (example: Pyrex)** | | **Aluminum Foil** | | **Styrofoam** | |
| **Steel Food Cans** | | **Green Glass Containers** | | **Batteries** | |

**6. What is a landfill?**

_____

_____

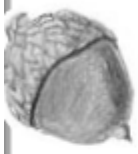
**7. What is a benefit of recycling?**

_____

_____

**Reading for this Week:** Read the following article and answer the questions as you go along. (extension.psu.edu/publications/uh177)

Natural resources are materials or things that people use from the earth. There are two types of natural resources. The first are *renewable* natural resources. They are called renewable because they can grow again or never run out. The second are called *nonrenewable* natural resources. These are things that can run out or be used up. They usually come from the ground.

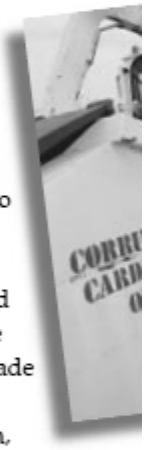


Let's look more closely at *renewable* natural resources. They are the ones that can grow again. Trees are a good example. If cut down, they can regrow from seeds and sprouts. Animals are another example. Baby animals are born and grow up. They replace older animals that die.

Air and water are renewable natural resources too. They don't regrow like trees or have babies like animals. But, they are always being renewed. They move in cycles. They go from one place to another, and often back where they started, again and again. This is a good thing, because all living things need air and water to survive. There is one other type of renewable natural resource. It includes sources of power like sun and wind energy. These are never ending. Finally, remember this: renewable resources can regrow or be replaced within a person's lifespan.

Renewable or Nonrenewable?


Now, let's look at *nonrenewable* natural resources. They are found in the ground. There are fixed amounts of these resources. They are not living things, and they are sometimes hard to find. They don't regrow and they are not replaced or renewed. They include the *fossil* fuels we burn for energy (natural gas, coal, and oil). Minerals, used for making metals, are also nonrenewable natural resources. Nonrenewable natural resources are things that take longer than a person's lifespan to be replaced. In fact, they can take millions of years to form.



People use both types of natural resources to produce the things they need or want. Our homes, clothing, plastics, and foods are all made from natural resources. Let's look at each one of these to be sure.

Your home is in a building. Buildings are made out of wood and minerals. Wood is from trees. Minerals are mined from the ground. Bricks, cement, and metals are made from minerals. How about your clothes? Most of your clothing is made from cotton, polyester, or nylon. Cotton comes from cotton plants. Polyester and nylon are made from oil. Plastics are made from oil too. How about your food? People eat grains, fruits, and other parts of plants. You may also enjoy dairy products and meat from animals. Everything we have or use is made from a natural resource. Which of those mentioned here are renewable? Which are nonrenewable?

**8. What is the difference between a renewable and non-renewable resource?**

_____

_____

_____

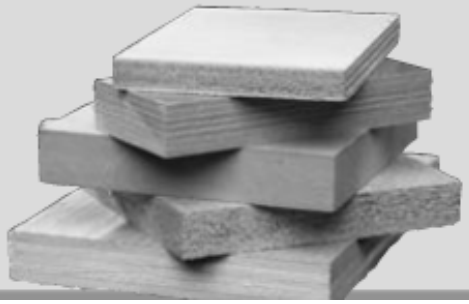
_____

**9. Identify the following as a renewable (R) or non-renewable (NR) resource:**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Corn** | | **Rocks & Minerals** | | **Coal** | | **Wood** | |

Trees are one of the most useful renewable natural resources. We use trees to produce almost 8,000 different things. Wood is used to make most of these products. Tree wood is in our homes, furniture, paper, and on and on. Tree chemicals are also used to produce things like rayon cloth, food, medicine, and rubber.

By-products are things made out of leftovers. For example, when a tree is cut down and sawn up for wood, the leftover sawdust can be used for fuel, making particle board, or animal bedding. These are by-products. Another by-product from harvesting trees is bark mulch for gardens.



All natural resources should be used wisely. We must *conserve* natural resources. Conserve means to not use up, spoil, or waste things. This is especially true for the nonrenewable resources. However, even some renewable natural resources can run out if they are all killed or overused. We must also protect our natural resources from pollution. Pollution occurs when people put harmful chemicals and other things into nature. Oil spilled in water, toxic chemicals in the air, or garbage dumped on the side of the road are examples of this problem.

So what can you do to take care of natural resources? You can reduce, reuse, and recycle! For example, turn off the lights when you are not in a room. This will reduce the use of fossil fuel used to make electricity. Ride your bicycle and walk more, to reduce the amount of gasoline used to transport you. You can reuse things. Things like plastic jugs, jars, paper, and bags can be reused. Each time you reuse something, you conserve the natural resources that would have been used to make new ones.

Finally, you can recycle. Recycle means to reuse a natural resource or product to make something new. It also means to collect and

Fossil fuels such as oil, coal, and gas will not last forever. They are nonrenewable. People are trying hard to find new fuels that are clean and will provide the power we need. Wind, solar, and hydrogen power are renewable resources that offer hope for the future.

**10. Why must we conserve natural resources?**

_____

_____

_____

send these things for reuse. Items that can be easily recycled include: glass, some plastics, paper, cardboard, aluminum, and steel. Some plastics and metals are hard to recycle. They are often made from mixtures of materials. Mixtures can be hard to separate. Try to buy and use things that you can recycle.

Universal recycling symbol

Natural resources, both renewable and nonrenewable, are important to all of us. We must conserve and carefully use natural resources. Our future depends on them.

Nutrients are chemicals that living things need. They are renewable natural resources. They move round and round in cycles and never run out. When an animal eats a plant, it takes in nutrients. The nutrients are used in the animal's body and then many come out as waste, which returns the nutrients to the soil. When the animal dies, nutrients will return to the soil as well. Plants take up the nutrients in the soil and continue the cycle.

Where does your garbage go when you throw it away? One place it goes is to a landfill. A landfill is a place made for safely putting garbage. Garbage must stay closed in the landfill so it doesn't pollute the ground, air, or water. Another place that garbage can go is into an incinerator. An incinerator is a large oven that burns garbage down to ashes. The ashes are then put in a landfill. A third place that some types of garbage can go is into a compost pile. A compost pile is made from natural garbage such as food scraps, leaves, and grass clippings. Compost piles help this garbage rot. After it rots, it can be put back on the earth to fertilize plants. The movement of garbage from a home or community to one of these places, like a landfill, is called the waste stream.

Written by Sanford S. Smith, extension specialist in Natural Resources and Youth Education, and Barbara R. Deiter, undergraduate student

Support for the production and printing of this document was provided by the U.S. Forest Service and the Pennsylvania Department of Conservation and Natural Resources (DCNR), Bureau of Forestry.

Visit Penn State's College of Agricultural Sciences on the Web: www.cas.psu.edu

Penn State College of Agricultural Sciences research, extension, and resident education programs are funded in part by Pennsylvania counties, the Commonwealth of Pennsylvania, and the U.S. Department of Agriculture.

This publication is available from the Publications Distribution Center, The Pennsylvania State University, 112 Agricultural Administration Building, University Park, PA 16802. For information telephone 814-865-6713.

This publication is available in alternative media on request.



Produced by Information and Communication Technologies in the College of Agricultural Sciences

Code # UH177 30.2M6/06aog4773

**11. What is the difference between garbage placed in landfill versus a compost pile?**

_____

_____

_____

_____