Name: Date: Class:

Is That Natural? Activity – Worksheet

Team Members

1. _____
2. _____
3. _____
4. _____

Part 1: Instructions

List 10 things that you see students do at home, at school, or in the community that contribute to a waste of natural resources. Each group member should list at least two items.

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

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Part 2: Instructions

List 4 ways that you think engineers are involved with our natural resources.

1.	3.
2.	4.

Part 3: Instructions

Using your calculator, answer the following questions:

1. The current population of the earth is nearly 8 billion people! Eight billion looks like this:

   8,000,000,000

   If you counted one number every second, how many days would it take you to count to 8 billion? (There are 86,400 seconds in a day. Using your calculator, divide 8 billion by 86,400.)

   _____

2. It is estimated that 8 babies are born every 2 seconds. How many babies are born in 1 minute? (Divide 60 seconds by 2 seconds. Multiply this number by 8.)

   _____

3. How many new babies are born in 1 hour? (Multiply the last answer by 60.)

   _____

4. How many new babies are born in 1 day? (Multiply the last answer by 24.)

   _____

5. How many new babies are born in 1 year? (Multiply the last answer by 365.)

   _____

6. How do you think our rapidly increasing population affects our natural resources?

   _____

   _____

   _____

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Part 4: Petroleum

Fossil fuels are the main source of energy on our planet. Altogether, 90% of the energy humans consume comes from fossil fuels. Petroleum, a type of fossil fuel, is one of the most valuable sources of energy on Earth.

The word *petroleum* comes from the Lain words *petra*, which means "rock," and *oleum*, which means "oil." Thus, petroleum literally means "oil from rocks." Petroleum means both the liquid and natural gas resources that we use for our energy needs. We measure the production and consumption of petroleum in terms of barrels. One barrel of oil contains 42 gallons.

Much of the oil we use is found is reservoirs deep below Earth's surface. This type of oil is the easiest type to get out of Earth and the easiest to process into useful forms. Scientists estimate that originally Earth has about 2,390,000,000,000 (2 trillion, 390 billion) barrels of conventional (that is, light of medium-weight) oil.

Since 1968, humans have produced about 22,000,000,000 (22 billion) barrels of oil each year. Each day nearly 93,000,000 (93 million) barrels of oil are consumed. Oil is so important to our day-to-day lives that it has become one of the major factors in relations between nations.

Answer the following questions:

1. Is petroleum a renewable or nonrenewable energy source? _____

2. Given the estimated daily world consumption of oil, 93,000,000 (93 million) barrels, about how many days would it take for the world to consume 1,000,000,000 (1 billion) barrels of oil? _____

3. Scientists believe that we could produce oil at the present rate for 30 to 40 more years. What do you think the impact of lower oil reserves will be?

_____

_____

_____

_____

_____

_____

Adapted from: Glencoe Science – An Introduction to the Life, Earth, and Physical Sciences, Glencoe/McGraw-Hill, Ohio, 1999, Enrichment p.26.