

# Week: April 27-May 1, 2020

**Teacher:** William Sewell

**Communication:** email: william.sewell@oakland5.org or Google Hangout-Meet

**Office hours:** Monday and Wednesday: 12:00 to 2:00 p.m., Tuesday and Thursday: 12:00 to 1:00 p.m.

**Due Date:** All assignments are due 5/4/2020 either by sending a picture of it and turning it into Google Classroom or turning it into the office.

**Assignments:** All assignments will be in "Google Classroom" and a paper copy will be provided from the Oakland main office. I will have office hours as listed above which we can review the assignments given and I will help you as much as needed. However, the expectation is the same as it was before. I expect you to have made a serious effort to complete the assignment, before asking for help. You will not learn anything with me just giving you the answers.

Class	Choice 1	Choice 2	Choice 3 (Enrichment)
Earth Science	Collect 15 different rock samples. Take pictures and describe them: shape, various colors, size, sharp sides/ smooth, etc.	Repeat this activity for this week and make a comparison to last week, if you did this activity or wait until next week and compare it then. Take pictures of the moon and record the cycle that it is in from Monday through Friday. Please use the given table to complete. Please refer to page 779 in your book.	Human Impact On Resources Please answer and respond to the following questions and statements. Make a list of five ways humans impact Earth by doing the following for each.  1. State the human impact. 2. Determine whether or not it is positive or negative. 3. State the things which determine the degree of this impact. 4. Is this impact permanent or temporary?
Physical Science	Do speed lab of races. Record your distance and time yourself. Please use the given table to complete.	Graph your data of distance versus time. With distance on the vertical axis and time on the horizontal axis, using the given graph paper.	Chapter 13: Review Worksheet, p.35-36, and the Chapter Test, p. 37-38

<b>Class</b>	<b>Choice 1</b>	<b>Choice 2</b>	<b>Choice 3 (Enrichment)</b>
<b>Chemistry</b>	WS#4 or Unit 4 Test	Do the Unit 5 WS#2. Use dimensional unit conversations to complete. or Unit 5: Relative Mass Lab video and write-up.	Unit 5: Quiz 1
<b>Pre-calculus</b>	Matrix WS #2	WS on Inverse Trig Functions	New problems: Watch videos on Inverse trigonometric functions. They will be assigned in Khan academy.

## Speed Lab

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

**Objective:** Students will be able to find speed by collecting data and dividing. Students will run three different ways and time the distance ran.

**Procedure:**

**Step 1: Finding Distance**

First, stretch out your legs and have someone measure the distance from one leg to the other. Take this number and multiply it by 10. Write it here \_\_\_\_\_. Take this distance and write it in distance section of all the tables below. Yes, it will be the same for all the trials.

**Step 2: Timing yourself.**

Now, mark a start and count out 10 paces by walking it out and then mark the end of your route. You will do the following and timed yourself or have someone else time you. You will walk, hop, skip, and run three times each. Fill in the chart below.

<i>Walking</i>		
<i>Trial</i>	<i>Distance</i>	<i>Time, s</i>
1		
2		
3		

<i>Hopping</i>		
<i>Trial</i>	<i>Distance</i>	<i>Time, s</i>
1		
2		
3		

<i>Skipping</i>		
<i>Trial</i>	<i>Distance</i>	<i>Time, s</i>
1		
2		
3		

<i>Running</i>		
<i>Trial</i>	<i>Distance</i>	<i>Time, s</i>
1		
2		
3		

**Data Table:**

sewell CHOICE #2 PHYSICAL

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SEWELL  
Choice #3  
PHYSICAL  
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**Chapter Review**

**Energy and Energy Resources**

**Part A. Vocabulary Review**

**Directions:** Place the letters of the words defined on the spaces provided. When you are finished, the letters in the vertical box spell out the answer to question 14.

1. Energy sources that are in limited supply are \_\_\_\_\_ resources.
2. device with blades that uses kinetic energy to turn a generator
3. a device that directly converts solar energy into electricity
4. energy of hot objects
5. energy from separation of positive and negative charges
6. device that converts kinetic energy into electrical energy
7. resource that is constantly being replenished
8. Energy stored in the bonds between atoms is called \_\_\_\_\_ energy.
9. Energy sources other than fossil fuel are \_\_\_\_\_ resources.
10. energy of light
11. energy due to position
12. energy due to motion
13. the ability to cause change
14. What is the energy stored in the bonds between protons in the nucleus?

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Choice #3  
PHYSICAL  
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**Chapter Review (continued)**

**Part B. Concept Review**

1. Number the steps for converting nuclear energy into electrical energy in the correct order in the blanks provided.
  - \_\_\_\_\_ a. kinetic energy turns turbine
  - \_\_\_\_\_ b. nuclear energy converted into thermal energy
  - \_\_\_\_\_ c. kinetic energy produces electricity
  - \_\_\_\_\_ d. thermal energy boils water
  - \_\_\_\_\_ e. kinetic energy turns generator

**Directions:** Circle the term or phrase in parentheses that best completes each statement.

2. As the mass of an object moving at a given speed decreases, its kinetic energy (increases, decreases, remains the same).
3. As the velocity of a falling object increases, its potential energy (increases, decreases, remains the same).
4. A feather floating in the air has (kinetic energy, potential energy, both kinetic and potential energy).
5. Hydroelectric energy can generate electricity because of the initial (potential, radiant, kinetic) energy of the water.
6. A photovoltaic collector turns radiant energy into (thermal, chemical, electrical) energy.
7. If you put a book up on a shelf, you increase its (potential, kinetic, both potential and kinetic) energy.
8. Wind turbines convert (potential, kinetic, thermal) energy into electrical energy.

**Directions:** Answer the following questions on the lines provided.

9. What is a renewable resource? What is a nonrenewable resource?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
10. When you drop a book on the floor, what happens to its original potential energy?  
\_\_\_\_\_  
\_\_\_\_\_

Assessment

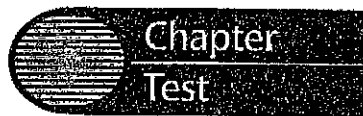
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Name \_\_\_\_\_

Date

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Class \_\_\_\_\_



# Energy and Energy Resources

## I. Testing Concepts

Directions: Fill in the blanks with the type of energy being described.

- \_\_\_\_\_ 1. energy of hot objects
- \_\_\_\_\_ 2. energy from separating charges
- \_\_\_\_\_ 3. energy stored in the bonds between atoms
- \_\_\_\_\_ 4. energy stored in the nucleus of an atom
- \_\_\_\_\_ 5. energy of motion
- \_\_\_\_\_ 6. energy of light
- \_\_\_\_\_ 7. energy of position
- 8. State the law of conservation of energy. \_\_\_\_\_

Directions: Fill in the blank with the word that best completes the following statements.

- 9. Resources that will eventually be used up are \_\_\_\_\_.
- 10. Resources other than fossil fuels used to generate energy are called \_\_\_\_\_.
- 11. A \_\_\_\_\_ is a device that changes kinetic energy into electrical energy.
- 12. Energy resources that are continually being replenished are called \_\_\_\_\_.
- 13. A device with blades that turns a generator is a \_\_\_\_\_.
- 14. A \_\_\_\_\_ transforms sunlight directly into electricity.

## II. Understanding Concepts

### Skill: Classifying

Directions: Match the type of energy from the list on the right with the item on the left. Some types of energy will be used more than once. List all of the appropriate types of energy for each item.

- |                                  |  |                      |
|----------------------------------|--|----------------------|
| _____ 1. flame of a candle       | _____ 7. bonds between protons           | a. kinetic energy    |
| _____ 2. lamp                    | _____ 8. heated oven                     | b. potential energy  |
| _____ 3. wall socket             | _____ 9. mug of hot chocolate on a table | c. radiant energy    |
| _____ 4. moving ball             | _____ 10. food                           | d. chemical energy   |
| _____ 5. an object about to fall | _____ 11. fossil fuels                   | e. thermal energy    |
| _____ 6. electric mixer in use   | _____ 12. an airplane taking off         | f. electrical energy |
|                                  |  | g. nuclear energy    |

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Name \_\_\_\_\_

Date

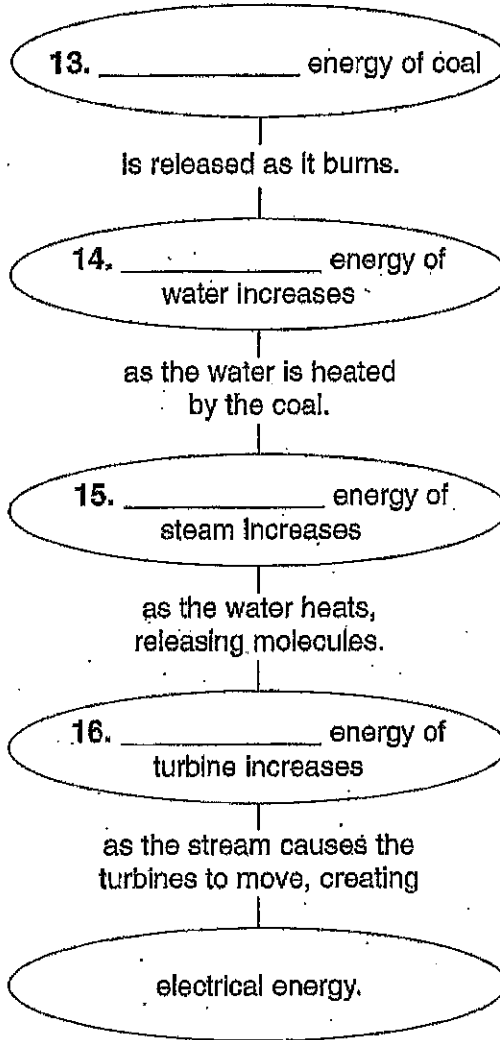
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Class \_\_\_\_\_

**Chapter Test (continued)**

**Skill: Concept Mapping**

**Directions:** Fill in the following events chain for getting energy from coal.



Assessment

**III. Applying Concepts**

**Directions:** Answer the following question on the lines provided.

1. When a piece of clay falls from the table to the floor, what happens to the potential energy it had while it was on the table?

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