

# Exercises

## Lesson 1: Atmosphere

1. How does radiation travel?
  - a. As a beam
  - b. As a wave
  - c. as a molecule
  
2. Where does most of the energy on earth come from?
  - a. Underground
  - b. The Sun
  - c. The Oceans
  
3. What is one way that we use energy from the sun?
  
  
  
  
  
  
  
  
  
4. Which instrument measures humidity?
  - a. Thermometer
  - b. Barometer
  - c. Hygrometer
  - d. Rain Gauge
  
5. What is the unit of measurement for temperature here in the USA?
  - a. Newtons
  - b. Joules
  - c. Fahrenheit
  - d. Celsius
  
6. What is another unit of measurement used for temperature?
  - a. Fahrenheit
  - b. Celsius
  - c. Joules
  - d. Newtons

7. What is the science called that investigates the weather and patterns of the Earth's atmosphere?
- a. Zoology
  - b. Biology
  - c. Meteorology
  - d. Nephology
8. What are clouds made of?
- a. Nitrogen
  - b. Water
  - c. Oxygen
  - d. Irridium
9. What form of water exists in clouds
- a. Water vapor
  - b. Liquid water
  - c. Frozen water
10. What is the name of someone who studies the weather?
- a. Oncologist
  - b. Herpitologist
  - c. Climatologist
  - d. Meteorologist
  - e. Asteroidologist
11. What is the type of energy that comes from the sun?
- a. Potential
  - b. Kinetic
  - c. Electronic
  - d. Radiation

12. What principle describes how pressure behaves in a moving fluid?
- a. Avogadro's Principle
  - b. Bernoulli's Principle
  - c. Boyle's Law
  - d. Pascal's Wager
13. A higher pressure will \_\_\_\_\_ an object.
14. An object experiences pressure in the Earth's atmosphere in which direction more?
- a. Upwards
  - b. Downwards
  - c. Equally in all directions
15. If an object is higher in altitude above the earth, it experiences which pressure in relationship to an object at sea level?
- a. Greater Pressure
  - b. Less Pressure
  - c. Equal Pressure

# Exercises

## Lesson 2: Geology

1. What is the definition of a rock?
2. What does it mean if there's no streak left on the streak plate?
3. Give an example of a kind of rock that leaves a streak a different color than its surface color.
4. If a mineral scratches a penny but doesn't get scratched by a nail, can you approximate its hardness?
5. Give examples of the hardest and softest minerals on the Mohs' Scale of Hardness.
6. Name three properties geologists look for when they try to categorize a mineral.
7. If you break a sample of quartz and find that it has no clean surfaces of separation, what kind of cleavage does it show?
8. What are two things we use coal for?
9. What is the equation for finding density?
10. How is fluorescence different from phosphorescence?
11. Is lodestone the same as magnetite?
12. Name three characteristics of pumice.
13. What is a crystal, and how is it different from a mineral and a rock?

# Answers to Exercises

## Answers to Lesson 1: Atmosphere

1. How does radiation travel? (as a wave)
2. Where does most of the energy on earth come from? (the Sun)
3. What is one way that we use energy from the sun? (appropriate energy answer)
4. Which instrument measures humidity? (Hygrometer)
5. What is the unit of measurement for temperature here in the USA? (Fahrenheit)
6. What is another unit of measurement used for temperature? (Celsius)
7. What is the science called that investigates the weather and patterns of the Earth's atmosphere? (Meteorology)
8. What are clouds made of? (Water)
9. What form of water exists in clouds (Water vapor)
10. What is the name of someone who studies the weather? (Meteorologist)
11. What is the type of energy that comes from the sun? (Radiation)
12. What principle describes how pressure behaves in a moving fluid? (Bernoulli's principle)
13. A higher pressure will \_\_\_\_\_ an object. (Push on)
14. An object experiences pressure in the Earth's atmosphere in which direction more? (Equally in all directions)
15. If an object is higher in altitude above the earth, it experiences which pressure in relationship to an object at sea level? (Less pressure)