

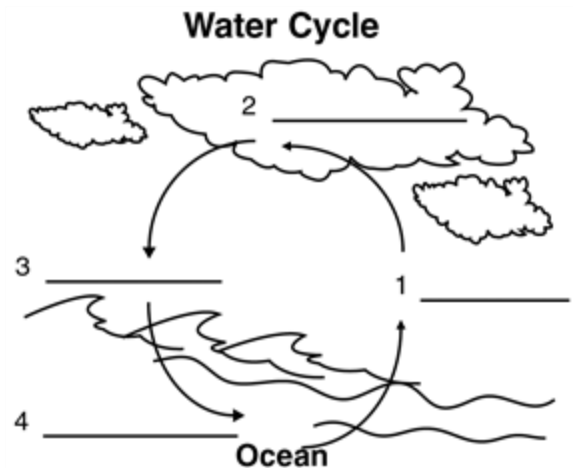
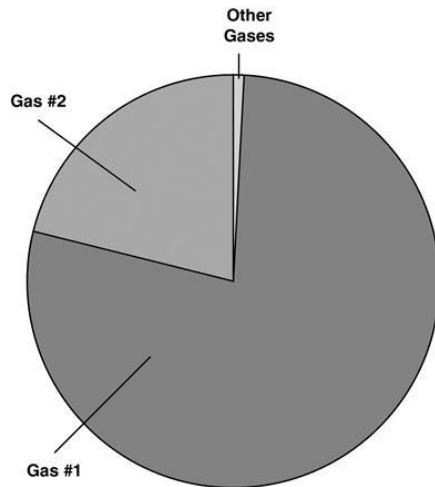
Unit 2 Test

Physics and Meteorology

Name _____

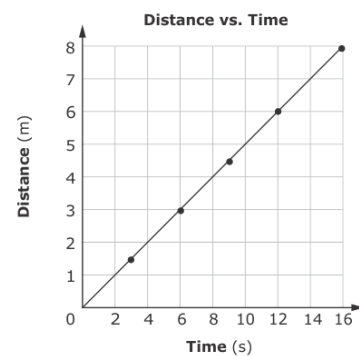
Date _____ Class _____

1. The temperature of the stratosphere increases with altitude because of the presence of _____
2. On Mount Everest the temperature decreases as the altitude increases. The summit of this mountain is in which atmospheric layer?
3. Label the 2 graphs below.



4. An atmospheric layer of a specific gas provides shielding from harmful ultraviolet light from the Sun, allowing life to thrive on Earth. What gas makes up this layer?
5. Which of these gases, on average, has the lowest volume in the atmosphere of Earth?
6. Energy from the Sun causes evaporation. Why does more evaporation happen from the oceans than from freshwater sources?
7. Why most of the rain that falls comes from the ocean?
8. Storms transport water in the form of rain. The energy that starts this process comes from the _____
9. Which statement explains what will most likely happen to the hydrosphere in an area where air temperatures increase?
10. Which two things interact most in the water cycle?
11. A roller coaster is climbing up the highest hill on its track. At which point will the front car of the coaster most likely have its greatest potential energy?
12. An engineer must calculate the potential energy of a roller coaster car at the top of an incline. Which information would best help the engineer determine the potential energy of the car?
13. In gym class a student kicks a soccer ball high into the air. As the ball goes upward, which type of energy is increasing?
14. What is mechanical Energy?
15. A student pushed a rock from the top of a hill. What type of energy change occurred after the rock was pushed?

16. A certain type of hybrid car utilizes a braking system in which energy is recovered and stored in batteries. This is an example of which type of energy conversion?
17. How do you calculate net force?
18. As Bobby entered a dark room, he pushed the switch on the wall to turn on the light. What makes the light turn on when Bobby pushes the switch?
19. Which simple machine uses a fulcrum to redirect a force?
20. What is an inclined plane?
21. What is a pulley?
22. Explain a wheel and axle?
23. What is a lever?
24. What simple machine is 2 inclined planes put together?
25. What is a screw?
26. Tomas wants to paint his bedroom. He goes to the store and buys two cans of paint. Which simple machine would make it easier for him to open the cans?
27. A wheelbarrow is a compound machine that uses simple machines to change the direction or size of a force. Which simple machines are used to form this compound machine?
28. Which is most likely needed when describing the change in position of an object?
29. Mimi pushes a book from the edge of a table and releases it at Point 1. It slides across the table and stops at Point 2. Which statement best explains the forces that act on the book as it slides across the table?
30. Angela blows air into a balloon and holds the end of it closed with her fingers. When she lets go of the end of the balloon, Angela observes that the release of the air propels the balloon. The propelling of the balloon from the release of the air is an example of which of Newton's laws?
31. If Mac pulled with a force of 18 newtons (N) and Janelle pulled with a force of 20 newtons (N), which correctly describes the forces applied to the plate of cookies?
32. Draw a graph that shows the total distance traveled by the object?
33. Calculate the speed using the graph.
34. What is the distance traveled?
35. What is the time it took to travel 5 meters?
36. How far did the person travel at 14 seconds?
37. How does flipping a switch turn on a light?
38. Ocean currents, prevailing wind patterns, and other atmospheric disturbances are initially caused by?
39. Hurricanes are large tropical storms with heavy winds that exceed 74 miles per hour. Hurricanes produce heavy rains and may give rise to tornadoes. What is the source of the energy contained in hurricanes?
40. Explains 10 things on the weather map provided.
41. Explain 10 things on the weather map below.



42. What 2 fronts are not included?

