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**Energy Flow, Physical/Chemical Changes, Energy Transformation Test Review**

**You should read over your entire student journal and student guide, as well as study your vocabulary and the pictures on the website. Don’t forget, you can look at the STEMScopedia.**

**From your 7.6B: Physical and Chemical Changes Student Journal**

1. What are three ways to physically change a substance?
2. What must have happened for a chemical change to have occurred?
3. What are the signs/clues to a chemical reaction?
4. Where are physical changes in your digestive system? Why are these physical?
5. Where are chemical changes in your digestive system? Why are these chemical?
6. What is in your stomach that causes chemical changes?

**From your 7.7B: Organism Energy Transfers Student Journal**

1. What kind of energy is in food?
2. What is energy measured in?
3. Why do we need energy?
4. What moves the energy around your body?
5. What type of energy is produced during digestion?
6. What are some of the energy transformation during digestion?

**From 7.6C: Molecules Student Journal, Student Guide, and Foldable:**

1. What are the 3 molecules of the human diet?
2. Why must large molecules be broken down?
3. What does saliva do for a human?
4. What is an enzyme?
5. What are small carbs generally called?
6. Where are carbs digested?
7. What two things are required to help break down protein?
8. What are small proteins generally called?
9. Where does protein digestion take place?
10. Which large dietary molecule is the most highly concentrated source of energy?
11. Where do fats break down in the digestive system?
12. What digestive juice does the human body use to break up the fats into tiny droplets?
13. What makes this juice and where is it stored?
14. Small lipid molecules are generally called what?

**From 7.5B: Cycling of Matter Student Journal and Student Guide:**

1. Describe evaporation.
2. Describe the “spheres” of Earth?
3. Describe transpiration.
4. What are 3 large water reservoirs?
5. Describe condensation.
6. Describe precipitation.
7. What is the difference between ground water and surface water?
8. What element makes up the highest percent of the atmosphere?
9. What makes nitrogen in the air available to all living organisms?
10. What form of nitrogen can plants and animals use?
11. What two ways do nitrates return to the soil?
12. What organisms are responsible for getting the nitrates back in the soil?
13. How does nitrogen get from the humus back into the atmosphere?
14. Carbon is carbon dioxide in what “sphere”?
15. Where is carbon in the biosphere?
16. How does carbon get back in the soil?
17. What are two ways carbon gets back in the atmosphere?
18. What is one way to demonstrate the role of bacteria in decomposition?
19. What does composting do to organic material?
20. Why is the amount of water in a compost bin important?
21. What happens if the oxygen level is to low in the compost bin?
22. Why should the temperature of a compost bin be between 120° F and 150° F?
23. What happens if there is too much nitrogen and not enough carbon in a compost bin?

**Review your vocabulary for each unit.**