

Name _____

Date _____

Matter and Energy Study Guide

Recycling of Matter

Water Cycle

Draw and label a simple diagram of the water cycle including evaporation, condensation, precipitation, infiltration, transpiration, and surface runoff, and the water molecule.

Nitrogen Cycle

Draw and label a simple diagram of the nitrogen cycle including nitrogen fixation, legume plants, nitrogen fixing bacteria, denitrification, and denitrifying bacteria, and the nitrogen molecule.

Carbon Cycle

Draw and label a simple diagram of the carbon cycle including photosynthesis, respiration, decomposition, combustion and the carbon dioxide molecule.

Photosynthesis

Write a balanced equation for photosynthesis and draw a simple diagram of a chloroplast.

Respiration

Write a balanced equation for cellular respiration and draw a simple diagram of a mitochondria.

What is the relationship between photosynthesis and cellular respiration?

Flow of Energy

Draw and label a simple food chain including producer, primary consumer, secondary consumer, and tertiary consumer. Show the decrease in energy as it flows through the food chain beginning with producer containing 700,000 Calories of energy.