

## WATER, CARBON, AND NITROGEN CYCLES

### THE WATER CYCLE (HYDROLOGIC CYCLE)

The \_\_\_\_\_ cycle involves the movement of \_\_\_\_\_ back and forth from Earth's \_\_\_\_\_ to the \_\_\_\_\_.

Remember water can exist in 3 states:

Solid

Liquid

Gas

### THE WATER CYCLE BASIC STEPS

Water on the Earth's surface is \_\_\_\_\_ by the sun and \_\_\_\_\_.

Water rises into the upper atmosphere, cools, \_\_\_\_\_, and forms \_\_\_\_\_.

Water \_\_\_\_\_ back to the surface as \_\_\_\_\_ (rain, snow, sleet, or hail).

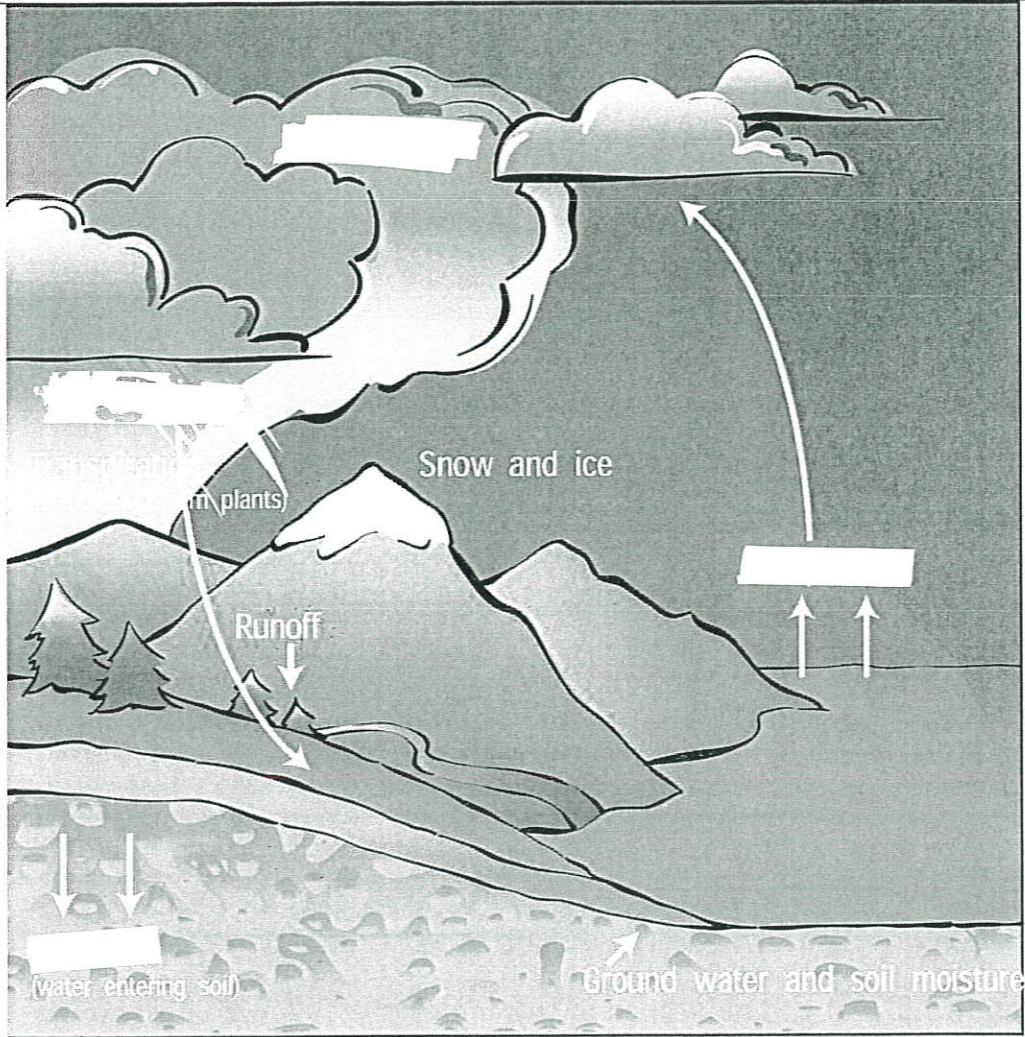
### THE WATER CYCLE KEY CONCEPTS

Most \_\_\_\_\_ falls back into the \_\_\_\_\_, lakes, rivers, and \_\_\_\_\_.

Water in the atmosphere is completely \_\_\_\_\_ once every 8 days

Water on this planet can be stored in any one of the following reservoirs:

\_\_\_\_\_, lakes, rivers, oceans, \_\_\_\_\_, soil, and/or \_\_\_\_\_.



## THE CARBON CYCLE

### THE CARBON CYCLE PHOTOSYNTHESIS

\_\_\_\_\_ - Plants use \_\_\_\_\_ dioxide ( $CO_2$ ) along with water and \_\_\_\_\_ to produce \_\_\_\_\_ (sugar) and release oxygen

FORMULA: \_\_\_\_\_

### THE CARBON CYCLE RESPIRATION

\_\_\_\_\_ - Both plants and animals break down glucose (sugar) during respiration to obtain \_\_\_\_\_.

### THE CARBON CYCLE CONSUMPTION

Consumption: During their lifetime, animals pass along \_\_\_\_\_ compounds from one another through feeding. Wastes produced during their

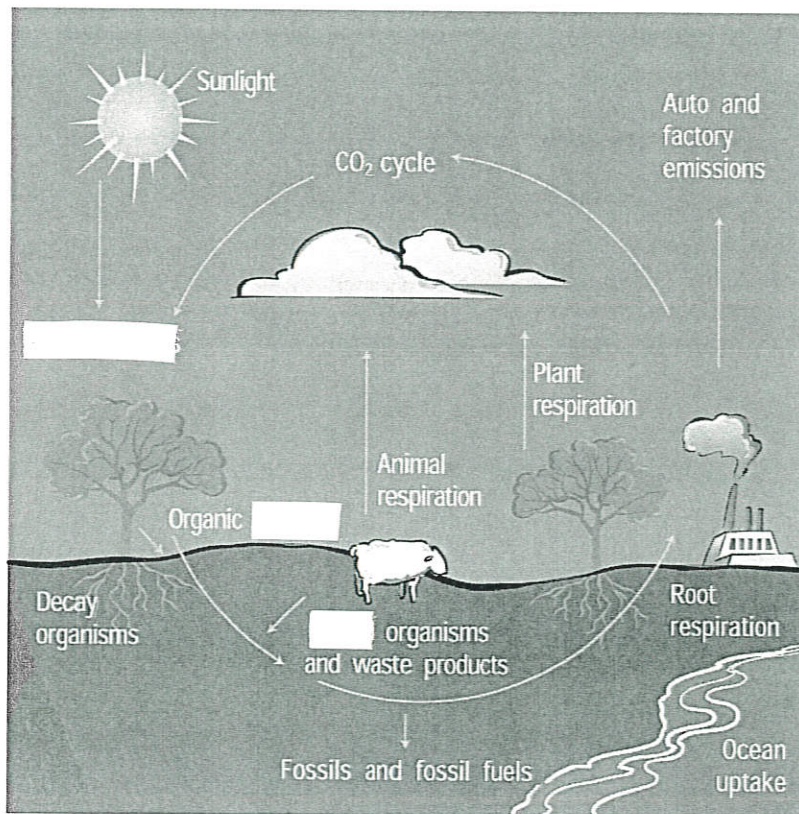
lifetime are broken down by \_\_\_\_\_ such as fungi and bacteria and carbon dioxide is added to the atmosphere.

### THE CARBON CYCLE DECOMPOSITION

\_\_\_\_\_ - When living things die, these decomposers break down their \_\_\_\_\_ compounds. Here again carbon dioxide is returned to the atmosphere.

### THE CARBON CYCLE COMBUSTION

\_\_\_\_\_ : Any burning of \_\_\_\_\_ fuels (Oil, coal, natural gas) or wood..... or combustion releases the energy stored in these organic compounds and also large amounts of carbon \_\_\_\_\_



### THE NITROGEN CYCLE KEY CONCEPTS

Plants and animals (all living things) need \_\_\_\_\_ to make \_\_\_\_\_.

Plants cannot absorb \_\_\_\_\_ ( $N_2$ ) from the air.

Bacteria in the soil convert unusable ( $N_2$ ) from the air into \_\_\_\_\_ ( $NO_3$ ) that plants can use to make their proteins.

Animals eat plants to get their \_\_\_\_\_.

# NITROGEN CYCLE

