Name: _____ Date: _____

The Water Cycle Cloze

Use the terms below to fill in the blanks. The terms can be used multiple times.

a. atmosphere
b. clouds
c. coalesce
d. collects
e. condensation
f. dense
g. energy
h. evaporation
i. fresh
j. gaseous
k. glaciers
l. gravity
m. ground
n. groundwater
o. icecaps
p. infiltrates
q. lakes
r. liquid
s. oceans
t. photosynthesis
u. pores
v. precipitation
w. reservoirs
x. runoff
y. solar
z. solid
aa. subduction zones
bb. sublimation
cc. surface
dd. transpiration
ee. volcanoes
ff. water cycle

The complex, constant movement of water on Earth, from the oceans to the air, across the landscape, and through plants and animals, is called the 1._____. It is powered by 2._____ energy, and aided by 3._____. The water cycle includes all the processes that shift water, both those that physically move water, and those that convert water between 4._____, 5. _____, and 6._____ states.

The cycle also contains many 7._____, where water accumulates. Within these reservoirs, water is spread unevenly across the Earth's surface. The great majority, more than 97%, lies in the 8._____. Just over 2% is frozen in 9._____ and 10._____. The rest, a meager half percent or so, is divided between the atmosphere, 11._____ and streams, and the 12._____.

Wherever the sun shines on the ocean and the water molecules gain enough 13._____, 14._____ creates fresh water vapor out of salty seawater. Winds lift the moist air high into the 15._____, and blow it about the globe. As less 16._____ air moves away from the warm ocean or higher into the cooler atmosphere it starts to cool off and 17._____ are formed. With sufficient loss of 18._____ (cooling), water molecules collect on microscopic dust particles and 19._____ into droplets until they become heavy enough that 20._____ pulls the water down as 21._____ in the form of rain, snow, sleet or hail. The average airborne water molecule stays aloft for only 10 days or so, until it joins a water droplet heavy enough to fall from the sky. Most 22._____ drops right back into the ocean. There, the water circulates until 23._____ claims it once again.

Some snow and rain also lands on the continents. In cold regions, at high latitudes or altitudes, where snow 24._____ in the winter and doesn't melt in the summer, icecaps and snowfields grow and persist over thousands of years. The clean ice in 25._____ and 26._____, most frozen well before the age of man, is both the purest and the largest storehouse of 27._____ water on Earth. If the snow and ice gains enough 28._____, it can change into water vapor in the air without first melting into water in a process known as 29._____.

When ice and snow melt, or rain falls on land, water is pulled swiftly downhill by 30._____. Some of it flows across the top of the ground, a process called 31._____. 32._____ water gathers into rivers pauses for a time in lakes, and rushes down to the sea. As it flows across the ground, running water cuts into the earth, wearing down and reshaping the ground. Moving water is the most powerful geologic force sculpting the landscape.

Although the handiwork of runoff is visible everywhere on land, more precipitation actually 33._____, or soaks into, the earth than runs off. More than 95% of the planet's liquid fresh water is 34._____, water held within the ground. Some shallow groundwater doesn't last long. 35_____ directly from the soil, and 36._____ through plants, both transfer moisture back to the air. The process of 37._____ is part of plant metabolism. Plants are the major biotic movers of water. Their roots collect water for distribution throughout the plant. Some of the water will be used in 38._____, but most travels to the leaves where it is easily evaporated when the plant opens its pores to allow the diffusion of carbon dioxide gas from the air.

Most 39._____ is neither evaporated nor transpired. It slowly drains downward, slipping through tiny 40._____ between soil grains, following cracks and caves in the bedrock, to seep into streams, lakes, and eventually, the 41._____. Along the way, the water interacts with the ground. Some pollutants, such as bacteria, are filtered out of the water, while some minerals, like sodium and arsenic, are picked up by the water. Earth's 42._____ are salty because groundwater has been carrying dissolved mineral salts down to the sea for billions of years.

As the water cycle spins, the earth's water moves from oceans to the 43. _____ to the land, and back to the sea, over and over, and over again. However, the water cycle is not a closed system. Tectonic activity inside the planet pulls water out of the system when seawater is dragged down inside the planet at 44._____, and also adds water into the system when steam erupts from 45._____. Some moisture also leaves the outer edge of the water cycle, when vapor high in the atmosphere "leaks" into space. And, water can also enter the system from above, when icy comets collide with earth.