BIOGEOCHEMCIAL CYCLES Name Key

Name the 4 biogeochemical cycles you learned about:

WATER CARBON

NITROGEN PHOSPHORUS

NAME THE CYCLE DESCRIBED:

CARBON — Cycle in which photosynthesis and cellular respiration participate

Phosphorus — Only cycle which does not pass through the atmosphere

WATER — Cycle that involves transpiration

NITROGEN — Cycle which is dependent on bacteria for nitrogen fixation and denitrification

WATER — Process by which water enters the atmosphere from the leaves of plants

CARBON — Cycle in which volcanic activity and burning fossil fuels plays a role

_____ — Another name for the water cycle

CARBON — Cycle which includes an underground reservoir in the form of fossil fuels

NAME THE STEP IN A BIOGEOCHEMICAL CYCLE:

BACTERIAL NITROGEN FIXATION — Process in which nitrogen gas from the atmosphere is converted into ammonia by bacteria that live in the soil and on the roots of plants called legumes

DENITRIFICATION — Process in which soil bacteria convert nitrogen compounds in soil back into nitrogen gas which is released into the atmosphere

PHOTOSYNTHESIS — Process in which sunlight is used to change atmospheric carbon into biomolecules used for energy by living things

TRANSPIRATION — Process in which water evaporates from the surface of plant leaves

DECOMPOSITION — Process in which nutrients in dead organisms are returned to the soil

cellular RESPIRATION — Process in which the break down of sugars in living things returns carbon to the atmosphere as CO_2

EVAPORATION — Process in which liquid water changes into gas form

CONDENSATION — Process in which water vapor (gas) changes into liquid water

Tell 2 human activities by which carbon can enter the atmosphere as CO_2 during the carbon cycle

BURNING FOSSIL FUELS CELLULAR RESPIRATION

Name 2 NON-human activities by which carbon can enter the atmosphere or oceans during the carbon cycle.

VOLCANIC ACTIVITY CELLULAR RESPIRATION

Tell one way carbon leaves the atmosphere during the carbon cycle.

PHOTOSYNTHESIS

Tell 2 ways water enters the atmosphere in the water cycle

EVAPORATION TRANSPIRATION

Tell something humans do to return nitrogen to the soil for the nitrogen cycle.

FERTILIZE / DECOMPOSE

Although almost 80% of the atmosphere is made up of nitrogen gas, most living things don't have the enzymes necessary to use nitrogen directly from the atmosphere. Tell how we get the nitrogen we need to make proteins and DNA if we can't get it from breathing.

WE EAT ORGANISMS THAT HAVE NITROGEN.