

UNIVERSITY OF
MARYLAND
EXTENSION



ENVIRONMENT

Supplemental Workbook



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**Please give us feedback on
this workbook. Thank you!**

https://ume.qualtrics.com/jfe/form/SV_5nF0LudNSCvOG58





Soil Property Pudding Cups

INGREDIENTS

- 1 (3.9 oz package instant chocolate pudding mix
- 2 cups milk
- About ½ cup graham cracker crumbs
- About 1 cup crushed Oreo cookies
- Twizzler (green Apple Pull-n-Peel licorice)
- Gummy worms

INSTRUCTIONS

- 1** With the 2 cups of milk, prepare the pudding per package directions. Refrigerate until set.
- 2** In a clear drinking glass or clear plastic cup, layer about ½ cup of pudding, one or two tablespoons of graham cracker crumbs, and about ¼ cup of crushed Oreos.
- 3** Cut licorice into pieces about 1 inch long; peel off a few strands and “plant” them in the pudding mixture as grass. Add a gummy worm or two.

ALLERGY ALERT: Dairy

Go to this link to view pictures of soil property pudding cups:
<https://www.thekitchenismyplayground.com/2013/05/soil-property-pudding-cups-aka-dirt.html>



Soil Activity Sheet

Soil Layer Matching

- ☐ **BEDROCK**
A layer of dense rocks that no plants or animals penetrate.
- ☐ **SUBSOIL**
Less humus but rich in minerals.
- ☐ **TOPSOIL**
Rich in humus and ideal for growing plants.
- ☐ **PARENT MATERIAL**
Composed of weathered rocks with little plants or animals on this level.



Soil Fact or Fiction

Read each statement and determine if it is Soil Fact or Fiction.

Circle the correct answer

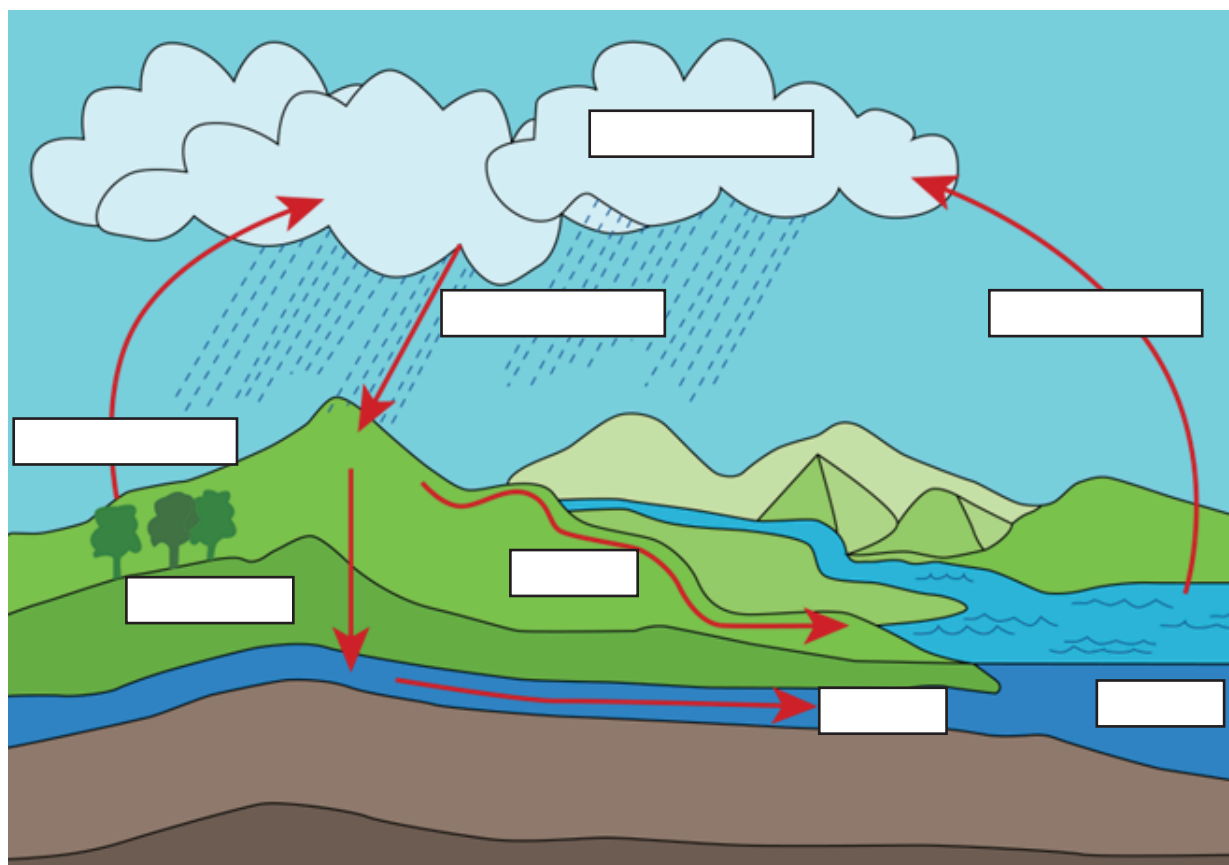
| | | |
|---|-------------|----------------|
| Five to ten tons of animal life can be found in an acre of soil. | FACT | FICTION |
| Clay, silt and sand are three types of minerals. | FACT | FICTION |
| Most soils have a blend of all three of these. | FACT | FICTION |
| It is impossible to stop soil erosion. | FACT | FICTION |
| One shovel full of soil has more living organisms in it than there are people on the Earth. | FACT | FICTION |

Source: USDA Natural Resources Conservation Service and artwork adapted from the Eri Basin Resource Conservation and Development



Water Cycle Activity

Fill in the blanks to label the water cycle.



Transpiration

Evaporation

Runoff

Ocean

Infiltration

Condensation

Precipitation

Aquifer

Source: National Agriculture in the Classroom



Water Cycle Activity Definitions

TRANSPIRATION

The release of gaseous water (water vapor) from plant leaves.

EVAPORATION

The changing of a liquid into a gas.

RUNOFF

Precipitation that does not soak into the soil but instead moves on the Earth's surface toward streams/ocean.

OCEAN

A continuous body of salt water that is contained in enormous basis on the Earth's surface.

INFILTRATION

To pass through a substance by filtering or permeating.

CONDENSATION

Water that collects as droplets on a cold surface when humid air is in contact with it.

PRECIPITATION

Moisture in the form of rain, snow, sleet, or hail that falls to the ground.

AQUIFER

Water-bearing rock that readily transmits water to wells and springs.

Sources: National Agriculture in the Classroom, U.S. Geological Survey, National Weather Service, Britannica



Animal Habitat Activity

Match the animal to its habitat.

(More than one animal may belong to a habitat.)

Cow

Pond

Deer

Rainforest

Beaver

Pasture/Barn

Duck

Coyote

Forest

Monkey



ANSWER KEY: Soil Activity Sheet

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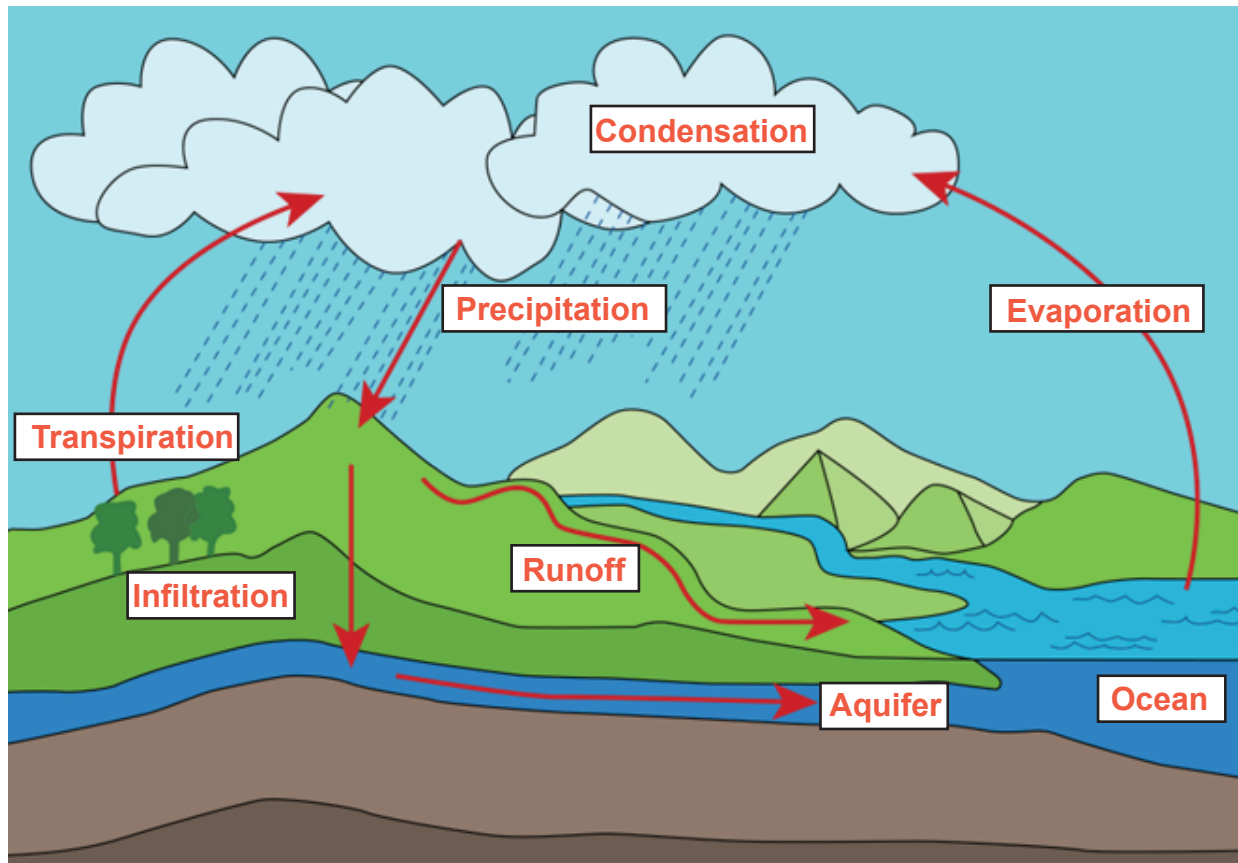
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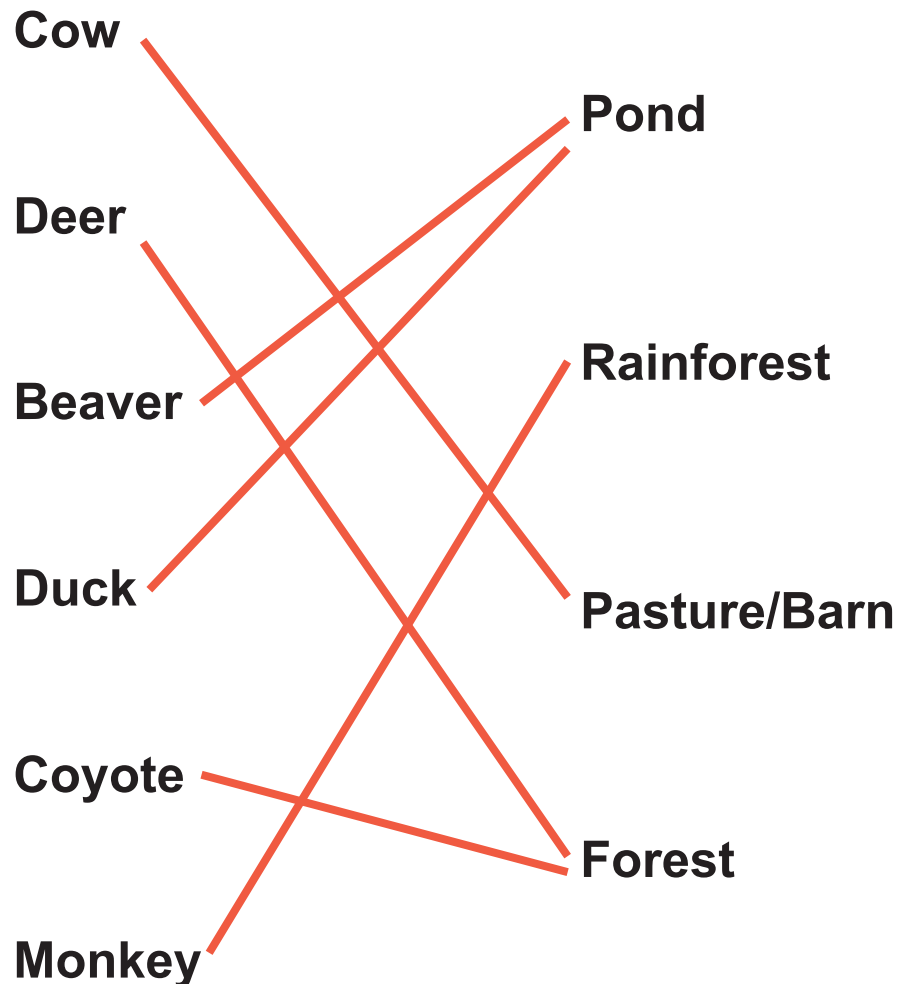
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Additional Resources

[Environmental Protection Agency: Water Resources for Educators](#)

[National Air and Space Administration \(NASA\) Precipitation Education](#)

Water cycle, weather and climate, technology, and societal applications

[Soils 4 Kids](#)

Activities, experiments, games, and related careers

[Soils 4 Teachers](#)

Information on soil and its formation, composition, human interaction, and lessons and activities

[Soil Life](#)

Information on soil and how it supports life