

FLARE Lesson



Water Cycle Vocabulary Foldable

Practice, practice, practice the unit vocabulary words!

◆ Grade Level(s)

5th to 8th grade

◆ Subject Areas

Life Science, Earth Science

◆ Key Topics

Water cycle, solid, liquid, gas, precipitation, evaporation, condensation, sublimation, transpiration

◆ Duration

Preparation Time: 10 min

Activity Time: 1 x 50 min

◆ Setting

Classroom (Individual or groups)

◆ Skills

Acquiring and using vocabulary

◆ Standards

NGSS & MT Science Std.:

MS-ESS2.4: Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.

ESS2.C: The Roles of Water in Earth's Surface Processes

CROSSCUTTING CONCEPT(S):

Patterns, Energy and Matter

SCIENTIFIC & ENGINEERING

PRACTICE(S): Obtaining, Evaluating, and Communicating Information

Common Core:

W.5-8.4: Produce clear, coherent writing

W.5-8.4: Write informative texts

L.5-8.6: Acquire and use vocabulary

Overview

Water is necessary for all living organisms on the planet. Water's unique properties allow it to move seamlessly on Earth. In doing so, it shapes the Earth's surface, creates unique permanent and seasonal habitats, and helps to control the climate globally. This lesson will help students to acquire and use the vocabulary words necessary to describe the processes of the water cycle.

Objectives

Students will be able to:

- make a vocabulary foldable for the 16 unit vocabulary words.
- correctly identify and use all 16 unit vocabulary words.

Materials

Warm Up / Activity / Wrap Up

- Computer, projector, and student worksheets
- Water Cycle Vocabulary Foldable Presentation
- One 8 1/2" x 11" colored paper per student
- Two 2 1/8" x 11" white paper strips student
- One scissors per student

Advanced Preparation

- We recommend for the students to create their Water Cycle Vocabulary Foldable before starting the other Water Cycle Unit Activities and to use it throughout the unit as a study guide.
- If completing the Vocabulary Foldable independent of the Water Cycle Inquiry Activity, copy the student worksheet #1 provided in this document.
- If completing the Vocabulary Foldable in tandem with the Water Cycle Inquiry Activity, copy the Inquiry Activity student worksheets (download the separate file from the FLBS website): <https://flbs.umt.edu/newflbs/k12teachingmaterial>
- Pre-cut the white paper strips so that they are 1/4 the width of a regular piece of paper (2 1/8" x 11").
- Gather the assorted colored paper.
- Download the Water Cycle Vocabulary Foldable presentation (ppt) found on the FLBS website listed above.
- Make a foldable to use as a demo in class.



Water Cycle Inquiry

Lesson Vocabulary

- Accumulation** – Process of a substance gathering in an area (ex. a lake).
- Condensation** – Process of a gas changing into a liquid (ex. clouds).
- Evaporation** – Process of a liquid changing into a gaseous phase (ex. steam).
- Expansion** – When something spreads, extends, or enlarges (ex. water molecules expanding as they freeze).
- Gas** – A state of matter that expands freely into any available space.
- Groundwater**– Water held underground in the soil or in pores or crevices in rocks.
- Infiltration** – Process of water moving from the ground surface into the soil.
- Liquid** – A state of matter that flows freely but is of constant volume.
- Molecule** – A group of atoms bonded together to create a basic unit of a chemical (Ex. H₂O or one water molecule is formed from the combination of two hydrogen and one oxygen atoms).
- Percolation** – Process of water slowly moving through a filter (ex. water moving through the soil).
- Precipitation** – Products of water vapor condensation in the atmosphere that fall to the ground (ex. rain, snow, sleet, grauple, or hail).
- Runoff** – Process of water draining away from the surface of the land (ex. water that flows off the land into streams, rivers, lakes, or oceans).
- Solid** – A state of matter that stays fixed in a firm and stable shape.
- Sublimation** – Process of a solid changing directly into a gas without passing through the liquid phase (ex. glacial ice turning into water vapor).
- Transpiration** – Process of water moving through a plant and evaporating out of the leaves, stem, and flowers.
- Water vapor** – Water in the gaseous phase.

Procedure

◆ Build the Vocabulary Foldable (20 minutes)

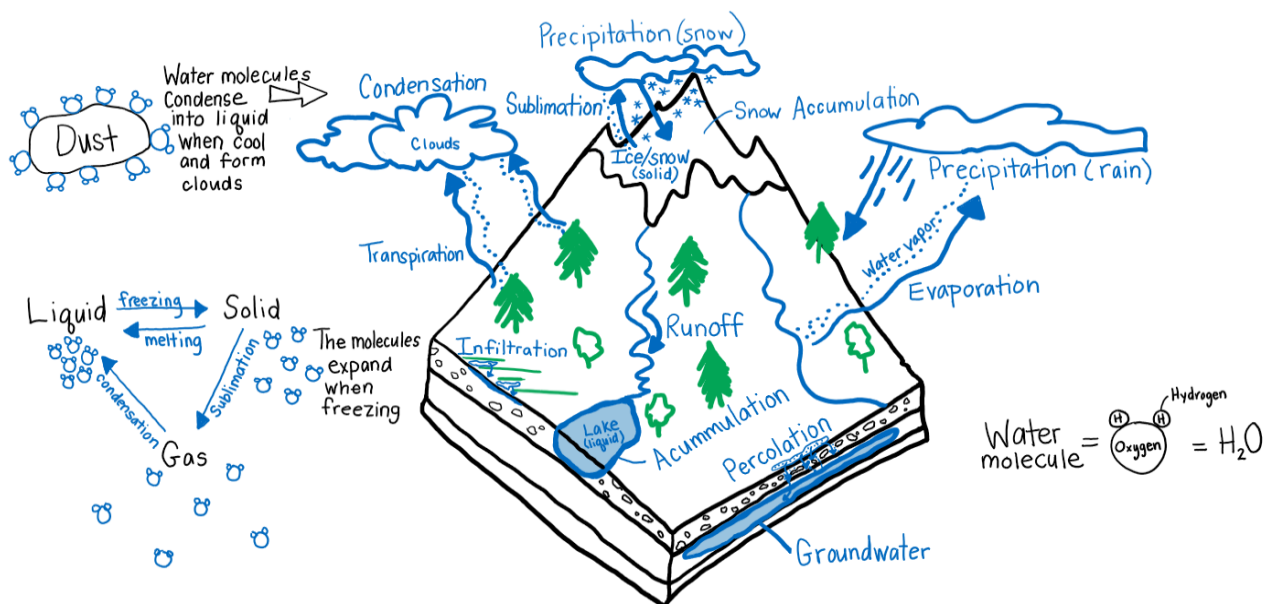
- If just starting the Water Cycle Unit, have the students take a pre-quiz (see Inquiry Lesson) before they create their vocabulary foldable.
- Turn on the projector and display the Water Cycle Vocabulary Presentation.
- Pass out the student worksheet(s), one pair of scissors, 1 8 ½" x 11" colored paper, and 2 2 1/8" x 11" paper strips to each student.
- Students build their Water Cycle Vocabulary Foldable as they follow the directions provided in the presentation.
- Walk the students through the process of making the vocabulary foldable (with space for 8 words on the front and back...16 words in total). Be sure to keep the students moving at the same pace so that each student has finished each step before you move on to the next.
- Demonstrate how to open the foldable. Show the students where to write all of the words (in the side boxes).

Accumulation	Drawing on top & definition underneath		Gas
Condensation			Groundwater
Evaporation			Infiltration
Expansion			Liquid



Water Cycle Inquiry

- Students should fill in the vocabulary words using the provided list and take care to spell each word CORRECTLY.
- Use the teacher demo foldable to show the students where to write the definitions (in the hidden areas underneath).
- Use the teacher demo foldable to show the students how to add a drawing that represents the word in the middle area next to the word (above the definition). Students should draw an image that helps them to remember the meaning of the word.
- Stop after each student has filled in all 16 words and at least 1 definition.
- Draw a water cycle on the whiteboard or Jamboard (see example below) and explain the role of each vocabulary word in the water cycle. Alternatively, display the provided teacher resource (#1) and explain the role of each vocabulary word in the water cycle.



◆ Fill the Vocabulary Foldable (40 minutes)

- Students continue to fill in the vocabulary definitions and drawings.
- Once the foldable is complete, the students can use it to study the words when they have spare time throughout the water cycle unit.



Water Cycle Vocabulary Word List

Vocabulary Word	Definition
Accumulation	Process of a substance gathering into an area (ex. a lake)
Condensation	Process of a gas changing into a liquid (ex. clouds)
Evaporation	Process of a liquid changing into a gas (ex. steam).
Expansion	When something spreads, extends, or enlarges.
Gas	A state of matter that expands freely into any available space.
Groundwater	Water held underground in the soil or in pores and crevices in the rock.
Infiltration	Process of water moving from the ground surface into the soil.
Liquid	A state of matter that flows freely but is of constant volume.
Molecule	A group of atoms bonded together to create a basic unit of a chemical (ex. water or H ₂ O)
Percolation	Process of water slowly moving through a filter (ex. water moving through the soil).
Precipitation	Products of water vapor condensation in the atmosphere that fall to the ground (ex. rain, snow, sleet, graupel, and hail).
Runoff	The draining away of water from the surface of the land.
Solid	A state of matter that stays fixed in a firm, stable shape.
Sublimation	Process of a solid changing directly into a gas without passing through the liquid phase (ex. ice turning into a gas).
Transpiration	Process of water moving through a plant and evaporating out of the leaves, stems, and flowers.
Water Vapor	Water in the gaseous phase.

Hint hint...the more you use the words above the better you will be prepared for the spelling and vocabulary quiz at the end of the unit!



Water Cycle Diagram

