ACTIVITY 1 ESSENTIAL SNOW

The Search for Snow is a stunning new 3D movie that shows the beauty of snow as well as its impact on the environment and living things in a whole new way. You will travel across the globe from icy mountain peaks to sunny valleys, from the Great Lakes to the Alps and beyond. You will learn how weather connects and creates ecosystems, how plants and animals survive in snowy habitats, and how the planet's changing climate will affect them and us in surprising ways.

PART 1: HAIKU FOR SNOW

Snow is always evolving. From the moment it forms, when water vapor freezes into a crystal around a *condensation nucleus* like a bit of dust or pollen, every snowflake is a unique arrangement that continuously grows and changes, based on the temperature, moisture, and wind along its journey. Think about your experiences with snow or what you learn from the film and recall its effect on all five senses, your emotions, and your activities. Use the lines below to write a **haiku** about your experience of snow.

A haiku is a special type of poem that originated in Japan and was often used to describe nature. It contains three lines, the first and last with five syllables, and the middle line with seven syllables. Here's an example to get you started:

Heavy snow falls fast.
Cold and wet it glistens bright.
I can't wait to play.

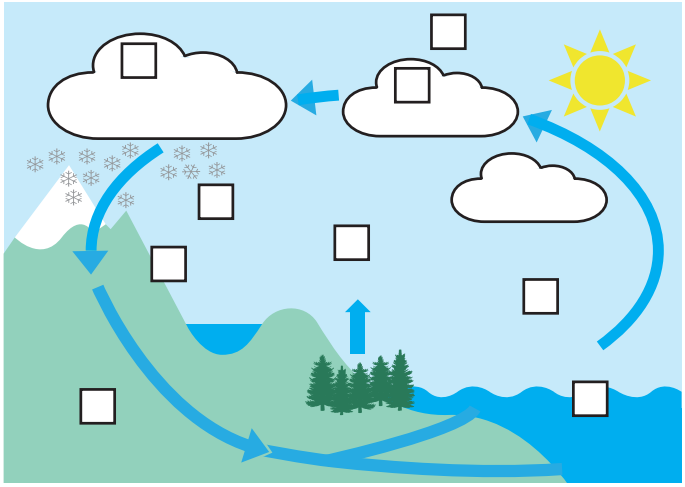
5 syllables _____

7 syllables _____

5 syllables _____

PART 2: THE WATER CYCLE

Snow continues to evolve after it lands, piling on the ground in a snowpack. In some climates, this snowpack builds up over time, forming a dense layer of snow that provides water to the region, a habitat for wildlife, and a source of income and entertainment for local communities. Where snowpack has built up over hundreds or even thousands of years, it eventually formed glaciers. In spring and summer, bits of these glaciers melt slowly, flowing into streams and rivers, and eventually into the oceans. Some of the snowmelt sinks into the ground, becoming groundwater, while the surface water evaporates to become water vapor.



This diagram shows how snow contributes to the water cycle. Complete the diagram by writing the letter for each label below into the correct box.

A. Condensation
B. Evaporation
C. Ground-water discharge
D. Ground-water storage
E. Transpiration
F. Sublimation
G. Water storage in ice and snow
H. Water storage in oceans
I. Water storage in the atmosphere

Now use online resources to define the following terms:

- Condensation: _____
- Evaporation: _____
- Sublimation: _____
- Transpiration: _____