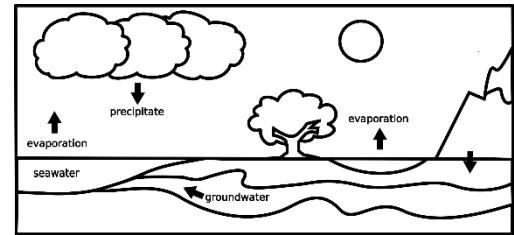


Group Members:

Host Computer Info:

Water Cycle Model Minecraft Edu

Background: You have been learning about the features of the water cycle. During the water cycle, liquid water is heated and changed to a gas (water vapor) by a process called **evaporation**. The gas (water vapor) is cooled and changed back to a liquid by a process known as **condensation**, or it can form ice. Water falls to the ground as a liquid or a solid through a process called **precipitation**. The energy that drives the water cycle comes from the sun.



Design Challenge: Design and build a model the water cycle. Make sure to represent, label, and explain the parts of the water cycle.

Criteria:

- All parts of the water cycle are **shown and labeled** in your model.
 - evaporation
 - condensation
 - precipitation
- All parts of the water cycle are described/ **explained** using boards, posters, slates, or signs.
 - Explains evaporation
 - Explains condensation
 - Explains precipitation
 - Explains what drives the water cycle
 - Explains how water is collected once falling to earth.
- If time permits, use the camera and portfolio to take pictures and write about your creation.

Suggested Minecraft Materials:

- Water
- Ice
- Snow
- Water droplet banners
- Scaffolding (to build high)

Suggested Spawn Point: 314 66 -55

Process

Problem to solve:

State the problem in your own words.

Brainstorm (Explore) Ideas to Meet the Design Criterial

Questions to consider:

1. What Minecraft materials will represent the various parts of the water cycle?
2. How will each group member contribute in the virtual world? (What will each of your jobs be?)
3. What are the expectations of each group member? (Rules?)

Design Drawing and Plan for Building Prototype

Test, Evaluate (After Testing the Design), Redesign Plan (Repeat this step as often as necessary.)

Testing: What was tried? What was the result?

Evaluating: Does it meet one or more of the design criteria?

Redesigning: What changes could we make for a design that meets more of the criteria?

Rubric:

Criteria Assessed	No Evidence 0	Attempts to meet criteria shows limited understanding 1	Meets some criteria with room for improvement 2	Meets most criteria with room for improvement 3	Meets all criteria 4
Guided Portfolio The problem is restated. Students discussed and answered the brainstorming questions. Student reflected on the project and evaluated their own work.					
Project All parts of the water cycle are evident and labeled. <ul style="list-style-type: none">• Evaporation• Condensation• Precipitation					
All parts of the water cycle are described/explained using boards, posters, slates, or signs. Explains evaporation Explains condensation Explains precipitation Explains what drives the water cycle Explains how water collects.					
Oral Presentation/Group Work The student uses grammatically correct language. The student uses clear and specific vocabulary to communicate ideas. The student speaks clearly. The student uses appropriate volume and pitch. The student speaks at an understandable rate. The student worked cooperatively with his or her group and was an effective group member.					