



**Learns
About the
Water Cycle!**



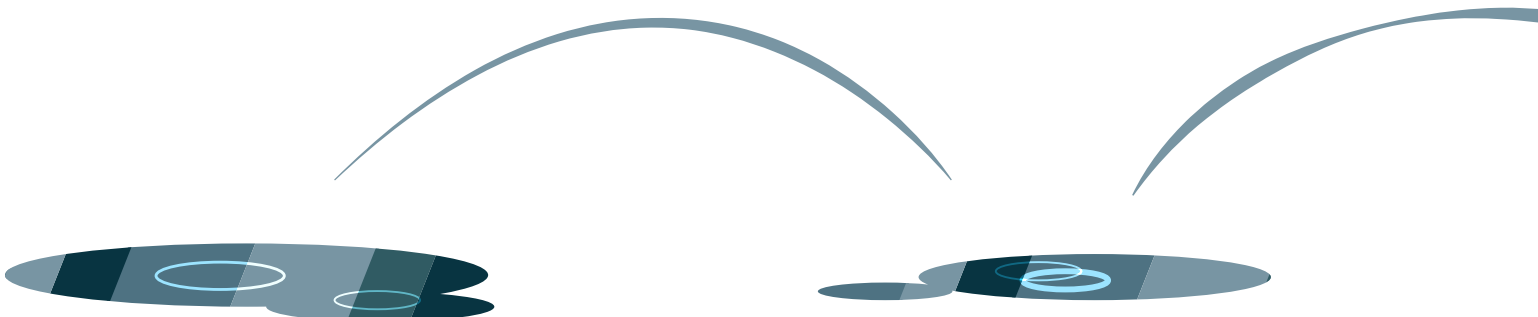
CJ Learns about the water cycle!

How does the water cycle around the Earth? CJ would like to learn about Earth's water cycle because water is scarce on their home planet. In this puzzle you will determine the states of matter, build the water cycle, and then solve a riddle based on your water cycle.

Water: States of matter

Materials:

- Code Jumper app with the sound set: Water States in Thread 1
- Code Jumper Kit
 - Hub
 - Three Play pods
- Note taking material



Directions:

1. Water comes in different forms on Earth. These forms are called the states of matter.
2. Solve the riddle by matching the sound to the correct state of water.
 - a. This form of water is cold and can be hard as rock. What state am I? Add one Play pod and find the correct sound.
 - b. This form of water is good to drink and take a bath in. What state am I? Add a second Play pod and find the correct sound.
 - c. This form of water is found in the sky and when boiled. What state am I? Add a third Play pod and find the correct sound.
3. Write your answers down in your notes. You will need them later. You can check your answers by reading the code.

***Did you know that 96.5% of the Earth's water is in the oceans?**



Building the water cycle

The water cycle has four main stages: evaporation, condensation, precipitation, and collection or water storage.

Materials:

- Code Jumper app with the sound set: Water Cycle in Thread 2
- Code Jumper Kit
 - Hub
 - Eight Play pods
 - Infinity plug

Directions:

1. To start building your water cycle, remove all Play pods that are connected to the Hub.
2. Choose the Sound Set called Water Cycle in Thread 2.
3. Insert a Loop pod into Thread 2.
4. Follow each step to create your water cycle.

Step 1: Evaporation

Evaporation is when the **SUN** heats up water in **RIVERS**, lakes, seas, oceans and **GLACIERS**. Even the soil has water which the sun turns into water vapor, or **STEAM**.

Build: Add four Play pods to the Loop pod to create the evaporation step of the water cycle. Listen to find the sounds for: Sun, River, Glacier, Water Vapor.



Step 2: Condensation

Condensation is when water vapor rises higher in the air or atmosphere. There it cools and changes from a gas (water vapor or steam) to a **LIQUID** (water droplets) forming **CLOUDS** in the sky.

Build: Add two Play pods to the program to create the condensation step of water cycle: Listen to find the sounds for Liquid and Clouds.



Step 3: Precipitation

Precipitation is when the water continues condensing in the clouds. When too much accumulates, the clouds become heavy and water falls back to Earth in the form of **RAIN**, or snow.

Build: Add one Play pod to the program to create the precipitation step of water cycle. Listen to find the sound for Rain



Step 4: Collection or Water storage

Collection or Water storage is when the rain or snow falls back to Earth and flows back into bodies of water such as rivers, lakes, seas, and even into the ground! Eventually the water reaches the **OCEAN**.

Build: Add one Play pod to the program to create the precipitation step of water cycle: Listen to find the sound for the Ocean.



***Did you know that 80% of the water vapor on Earth comes from the oceans?**

Complete the loop

Plug in the last Play pod into the Loop pod. How many times does the water cycle happen? Hint: Use the plug that keeps it going.

CJ's question:

CJ wants to know: How does Earth make new water?

1. Read the code and write down the number read for each sound.
2. Find the matching phrase for the number in the table and write down the words in order. This is the answer to CJ's question.

1 - rain

2 - formed

3 - snow

4 - it all

5 - on Earth

6 - infinitely

7 - no

8 - There is

9 - yes

10 - water

11 - vapor

**12 - gets
recycled**

13 - ice

**14 - turned
into**

15 - new

16 - ocean

To check your work, download the puzzle answers.

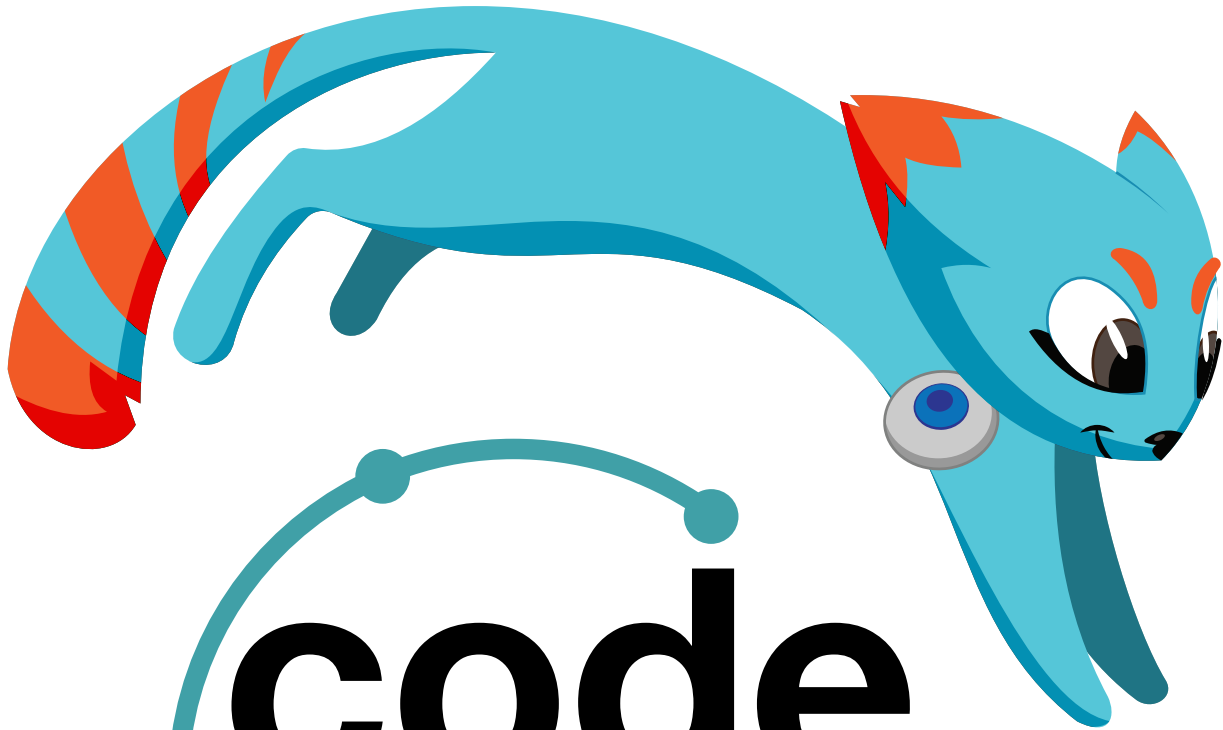
Loop: A loop is a way to organize commands in a computer program, so they repeat a sequence of instructions a required number of times.

To learn more about Loops, check out a Code Jumper lesson about loops.

Congratulations! You've completed another CJ adventure!



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