

Scratch Brainstorming

WATER SYSTEMS CODING LESSON

GRADE 8

Meet Scratch

Scratch is a coding platform for all ages and subjects. Students can use Scratch to learn 21st century skills while coding their own interactive stories, animations, and games.





Climate Change Coding Lesson

View and engage with the Scratch program, *Water Systems Water Table Terminology Example*, <https://scratch.mit.edu/projects/279187507/>

answer water table

Water Table

The level below the earth's surface at which the ground becomes saturated with water.



The water table is set where hydrostatic pressure equals atmospheric pressure

Scratch Brainstorming

Using the Scratch Brainstorming section of the *Water Systems Terminology with Coding* handout, collaborate to solve the pattern that will efficiently include the remaining terminology as digital cue cards: Water Table, Aquifer, Polar Ice-Cap, and Salinity.

Remix Climate Change Scratch Program

Students will use computational thinking skills to remix the *Water Systems Water Table Terminology Example*, with the purpose of coding the remaining terminology into the program efficiently as digital cue cards.

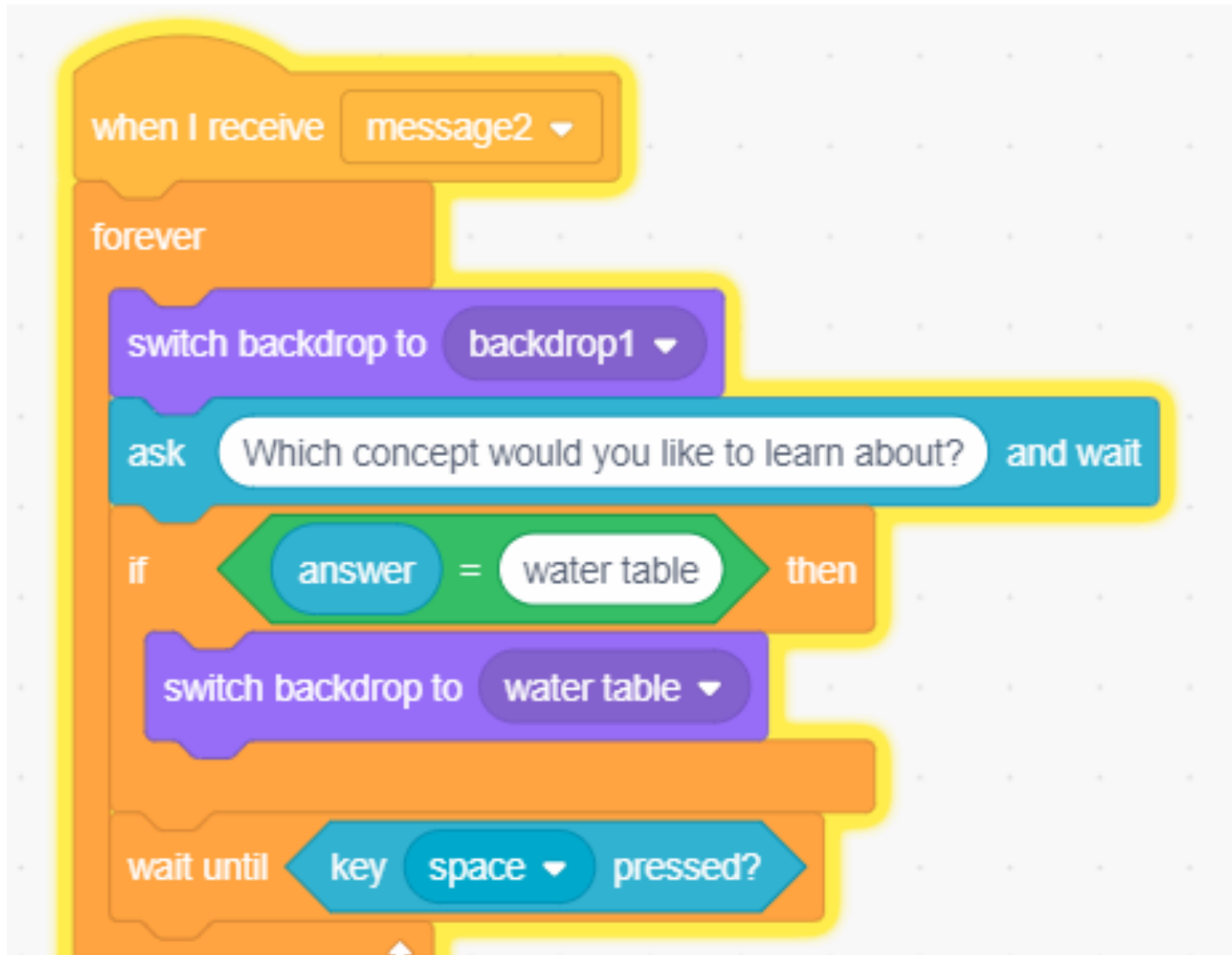
<https://scratch.mit.edu/projects/279187507/>

 Remix

 See inside

Remixing Hints

Examine the Example Water Systems Water Table blockly code...



```
when I receive message2
  forever
    switch backdrop to backdrop1
    ask Which concept would you like to learn about? and wait
    if answer = water table then
      switch backdrop to water table
    wait until key space pressed?
```

The image shows a Scratch code editor with a yellow highlight around a sequence of blocks. The blocks are: 'when I receive message2', a 'forever' loop containing 'switch backdrop to backdrop1', 'ask Which concept would you like to learn about? and wait', an 'if answer = water table then' conditional block containing 'switch backdrop to water table', and 'wait until key space pressed?'.

Remixing Hints

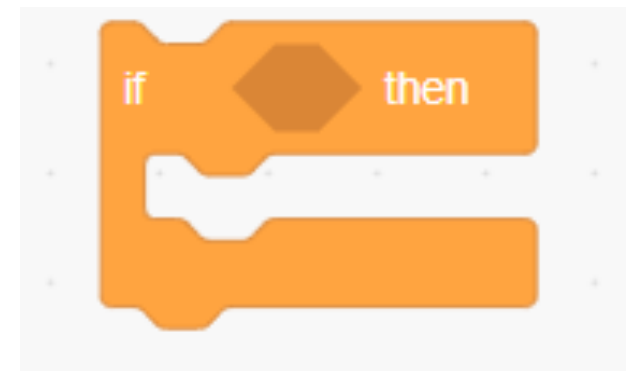
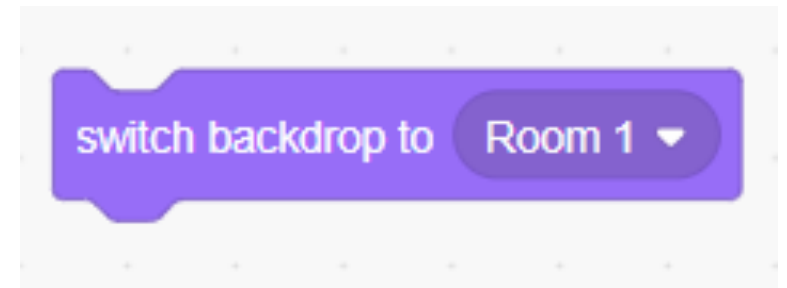
- Multiple backdrops are needed!
- The water systems terminology researched at the beginning of class is needed!



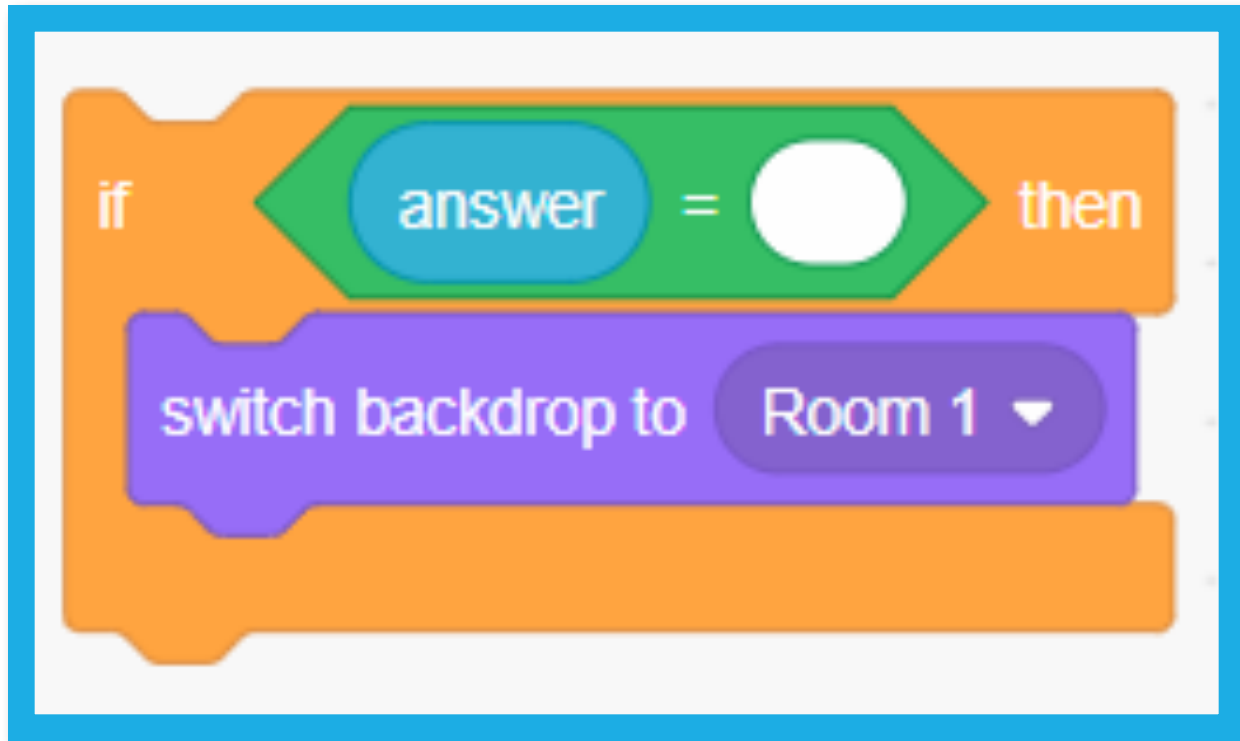
Remixing Hints

Additional coding is needed.

How should these Scratch blocks be arranged?



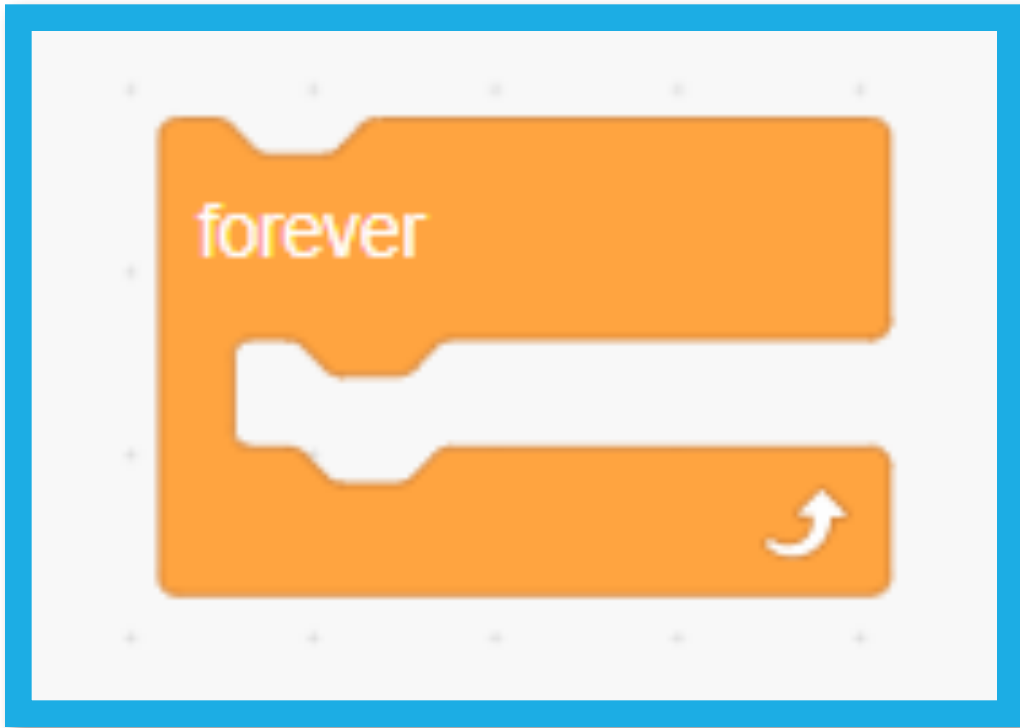
Remixing Hints



HOW MANY OF THESE SCRATCH SEQUENCES ARE REQUIRED?

WHAT SHOULD THE ANSWER EQUAL?

Remixing Hints



What about forever?

Should a forever Scratch block be included?

Scratch Key

Here is one possible way of coding the remaining Water Systems terminology into the Scratch program as digital cue cards!

