

## 1.Data

Climate data and rainfall are used to determine what changes are taking place.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1		October	November	December	January	February	March	April	May	June	July	August	September	
2	Rain Year 2016	0.45	0.01	0.57	3.17	0.79	1.6	0.24	0.05	0	0	0	0	
3	Eto6	3.72	2.4	1.86	1.86	2.24	3.41	4.8	5.58	6.3	6.51	6.2	4.8	
4														
5														
6														

2. How does the data serve as an engaging context for the math concept(s) you teach?

Students will enter data collected from each month and how much rainfall from October 1 until September 30, 2016 by using the California water table from

<https://www.jpl.nasa.gov/edu/teach/activity/modeling-the-water-budget/>

3. What is the measurable objective of the activity? Students will answer the following questions.

1. How much rainfall for the year selected?
2. What's the difference in rainfall total and potential evaporation?
3. In which month did California have more rainfall or was there a shortage?

4. Provide the CCSS-M principles addressed- Write out each objective completely.

[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.

[6.NS.B.3](#)

Fluently add, multiply, subtract, multi digit decimals using the standard algorithm for each operation.

5. Collect evidence regarding the use of data in the classroom. a. Did it enhance the understanding of the concept? Yes

b. Create a brief survey or interview a few students about the activity.

How much rainfall did Californis receive in October 2016?

Which zone are we located in in comparison to the zones in California?

What could cause the changes in the water table for the months of July and August compared to December and January?

c. Summarize your results in 1-2 pages

## Summary

In this lesson students will collect data found in each example from the list I have added below in our activity. In this activity students will roll a dice and follow the simple instructions that go along with this lesson. In this lesson students will be creative and support their findings and list the data in a data chart that will be available to them as they work through each stage of the lesson and provide feedback from where the dice has landed and where they will start in each section of the lesson. Instructions are provided along with some videos giving examples from the water cycle and how the different stages affect each area in the list.

## INSTRUCTIONS

Congratulations! You will be simulating the journey of a water drop through the water cycle with this game simulation and activity.

1. You will begin at the next slide and follow instructions. You will be going to different slides (stations) with different locations (which are at the top of the slide) according to what you roll on the dice. When you get to a slide (station) you will record your information on the result sheet provided (if you are in person) or on the last slide if you are virtual (paper is ok if preferred).
2. You will roll the die at each station (slide) to determine where you travel to next in the water cycle. When you are at a station (slide) you complete the result sheet (last slide) or the paper you are provided if you are in person. You will go to 12 stations total to complete the sheet and your water cycle journey.
3. Write each part of your journey on your result sheet. Keep in mind that some details are left up to you such as types of plants and animals that are interacting with you - you have the freedom to choose which types are necessary.

ONCE YOU COMPLETE YOUR SHEET....

4. You are a water molecule traveling through the hydrologic cycle. Choose a unique point of view to represent your journey. You will create a summary of your journey -- it could be a comic, story, PowerPoint, or any project approved by the teacher. Be creative.

GET STARTED.....

STEP 1 Roll the dice (click on it to roll it) to see where you will start in your water cycle journey. The number on your dice will tell you which number and slide you will start at below:

1. Go to [lake](#)
2. Go to [cloud](#)
3. Go to [mountain](#)
4. Go to [animal](#)
5. Go to [soil](#)
6. Go to [groundwater](#)