

DROP IN THE BUCKET

Activity:

1. The 1 measuring cup (8 oz) represents all water on Earth. Where is most of the water found on the planet? It is 97% of Earth's water!

Label Ocean & % water & draw your image of the ocean

- $97\% * 8\text{oz} = 7.76\text{ oz}$
- How much left? How can you calculate?
- $3\% * 8$ or $8 - 7.76$ other? We will round to 0.25 oz.
- $8\text{oz} = 1\text{ cup of water}/1\text{oz} = 6\text{ tsp}$
- $0.25 * 6\text{tsp}/1\text{oz} = 1.5\text{ tsp}$
- Remove 1.5 tsp from cup and pour into the 1 TBSP.
- Shake salt into water remaining in cup and label 'salt water'

2. Predict- The remaining 3% is the amount of fresh water on Earth. Where do you think most of the fresh water is found on Earth?
Hint: 80% of fresh water on Earth is in this state of matter.

Label frozen water & 80% fresh water & draw your image.

- $80\% * 1.5\text{tsp} = 1.2\text{ tsp}$
- How much left? How can you calculate?
- $20\% * 1.5$ or $1.5 - 1.2 = 0.3\text{ tsp}$
- Will round to nearest .25 tsp again.
- Take $\frac{1}{4}$ tsp. from tbsp. = non-frozen fresh water.
- Set aside remaining 1.25 tsp and label as frozen fresh water.

3. Predict- Unfortunately, people still can't get or use most of this water. Why do you think this might be? Where do you think this water is located?

What % is non-frozen fresh water?

- $1\text{ cup} = 8\text{ oz } 1\text{ oz} = 6\text{ tsp } 8 * 6 = 48\text{ tsp}$
 - $0.3\text{ tsp}/48\text{ tsp} * 100\% = 0.6\% \text{ of Earth's water!}$
- Water is deep underground to easily access or too polluted to use. Only 0.5% of remaining $\frac{1}{4}$ tsp is easily accessible fresh water humans can use.
Label 'non- potable fresh water' % and your image.

4. Predict- Where do you think most of the remaining easily accessible fresh water is found on Earth?

Dip your finger or tip of a pencil in the water to remove 1 drop. Let the drop fall on the table, in a cup or on a plate
This represents the amount of water on Earth available for human needs = 0.003%!
Label 'potable fresh water' % and your image.