
DAY ONE – INTRODUCTION TO WATER (MATTER)

Objectives:

- Students will understand the five properties of water (in all three phases)
- Students will apply the scientific method to a problem relating to adhesion and cohesion of water as it relates to a penny (lab)
- Students will practice math skills such as taking the average of a number

These objectives coincide in accordance with Maryland SOL Standards:

- *6.5 Matter (a and b): The student will investigate and understand the unique properties and characteristics of water and its roles in the natural and human-made environment.*
- *6.1 (a-j): The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which*

Warmup:

See board.

Also have on the white board these vocabulary words written:

dissolve
universal solvent
absorb
dense
transparent
cohesion
adhesion

Procedure:

- Give each child a warmup as they enter the room
- Take attendance, introduce yourself as to who are you and what you are doing
- Give 3 minutes to complete warmup
 - Discuss answers to warmups for about 5 minutes – can call on people or respond to raising hand
 - Can really talk about anything (taking a shower for example, formula for water, droplets, skitter bugs, temperatures of freezing and boiling, oceans cold but sand hot, how much water in our body, how much one earth, so replenishing, ice vs liquid vs vapor etc)
 - Point to the vocabulary words on the board and tell them the plan for the day...by the end of the day they should understand these words and will be testing some of them in a mini lab. This is what we will be focusing on for today only.
 - Have them hold onto warmup
- Pass out “Unique Properties of Water” pages 7 and 8 from pdf
 - As kids to read it quietly for 5 to 10 minutes
 - As they encounter each definition they see on the board, underline what they think each words means from the text. If they need help let me know
 - Discuss with the class what they learned

- Water Penny Lab (maximum 20 minutes)
 - Have students partner up according to shape
 - Should be 5 groups of three and 2 groups of two
 - Give each student a penny, dropper and cup with water and paper towel for each group. While you pass this out have them talk about what they think and write their hypothesis. Talk about attention to detail.
 - We will be talking about cohesion and adhesion here
 - Review scientific method (write in hypothesis)
 - Review how to do average and why we need to do it
 - Let me know when you finish to clean up and answer questions at the end

Collect all work, beginning with Warmup and then Water Penny Lab. No Box of Love so just do it with your hands.

- Brain Pop Video (2 minutes)
 - If there is time, end class with brain pop water summary video
 - <http://www.brainpop.com/science/earthsystem/water/>

Homework:

- None – Tuesday