

Winter Garden: Snow, Heavy & Light
2016 Ms. Cretera's Garden Parents
Outdoor Lesson #10- 12.21.2016
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Objective: Observe the School Garden in Winter Time: identify winter colors, shapes, plants, animals, weather. The garden is covered in snow. Use the snow to tie into the Kindergarten curriculum comparing heavier and lighter, is water or snow heavier?

Time/location: The entire lesson can be done in 20-35 min.

Materials: Bucket of Water, snow. Plastic containers, wax/oil pastels to mark level of snow

Book: *Winter is Coming* by Tony Johnston & Illustrated by Jim LaMarche, or *Snowflake Bentley* by Jacqueline Briggs Martin & Illustrated by Mary Azarian

Before The Lesson/ And Anytime we need to re-group (also Ms. Cretera's method, 3,2,1,shh....kids love to recite it:

-Deep Breath Pause: Breathe in the air just the way the roots absorb in the water, feel it go to all parts of your body, (feel the water going up your trunk, into your branches, out to the leaves, make food, and evaporate) and breath out.

Part 1 / Book Reading - Maybe

Gather on the picnic tables, read the book. We skipped this step due to the cold, and moved straight to the poem. Thinking Poems may be a nice literary technique especially in the wintertime to keep the kids active, moving, and move the lesson along more quickly.

Part 2/ Snow Poem: Gather in a Circle to Recite the Poem Together & Move:

Always fun to read line by line and the kids can recite afterwards, Add a little shake, wing-flap, hands over chest for heart also helps.

Dust of Snow - by Robert Frost

The way a crow
Shook down on me
The dust of snow
From a hemlock tree
Has given my heart
A change of mood
And saved some part
Of a day I had rued.

<http://www.theredheadriter.com/2013/04/dust-of-snow-by-robert-frost-relevant-for-today/>

Have you ever written a poem about snow? I think our kindergartners have written about snow! Brainstorm words you can use to describe snow. **LATER INSIDE:** Using those words, have the students write stories or poems about students' favorite snowy memories. Share Bentley Snowflake photos and talk about why no two snowflakes are alike. *We learned that each flake starts when water freezes around a speck of dust, and the unique winds and weather and movement of each flake means it is unique.*

Part 3/Snow Balls in Water

Kids are encouraged to make a snowball, then gather at a pond or bucket of water. What happens when the snow goes in the water? Does it sink? Or float? What happens when it melts? Why is Snow floating, why is it lighter? I used a small plastic container here, after the kids made their own snowballs, and felt cold, I asked them to put their snowballs down and I asked them to guess or make a hypothesis like scientists whether my snowball would float or sink. The seemed to enjoy being little scientists!

Part 4/ Mark your container full of Snow

Fill a clear jar or plastic container with snow about 2/3ds full- not all the way to the top. **(KIDS were eager and worked together to fill the whole container)** Mark the level of the snow. Have the kids take it back to their classroom and check it the next morning, is the level of the water higher or lower than the snow. Take a Vote, Maybe! Maybe break up into groups. **UPDATE:** Ms.Cretera and the kids noted that the melted snow reduced to about half its original volume, and it was brown-ish, so in addition to AIR, there was DIRT in the packed snow. They discussed this in light of the fact that many enjoy eating snow :)

Tea: Hibiscus Tea with Honey- Discussion - Pour just a little per cup and let it cool down..

Density is an important part of understanding snow. Snow has less water in the same space than liquid water because there is a lot of space between the crystals of snow filled with air. Glaciers from dusty light snow with lots of air, as the snow piles it compacts and becomes heavier...

https://www.priweb.org/files/Outreach/tciyb/Light_Fluffy_Wet_Heavy