

## Winter Garden: Snow, Heavy & Light

2017 January

1st Grade Garden Parent Lesson #10

**Objective:** Observe the School Garden in the Winter Time. The garden is covered in snow. Use snow to tie into the 1st grade curriculum: measurement & subtraction, observation of winter plant silhouettes & shadows, snowflake sides, sounds in the garden.

**Time/location:** The entire lesson can be done in 30-45 min.

**Materials:** Transparent containers, paint stirrers or sticks, wax/oil pastels to mark level of snow, pencils paper and clipboard.

**Books:** *Snowflake Bentley* by Jacqueline Briggs Martin & Illustrated by Mary Azarian

**Poems:** *Dust of Snow*, Robert Frost / *Dragon Smoke*, Lilian Moore / *The More it Snows*, AA Milne/ *The Mitten Song*, Marie Louise Allen/

*Winter Sweetness*, Langston Hughes / *The Tiniest Sound*, Mel Evans (PICK ONE OR MORE)

### Part 1 / Book Excerpt Share/ Snowflakes and Snow

Quickly share a couple of pages of Snowflake Bentley Book and ask the kids the following:

*How many sides does a snowflake have? (6/ hexagonal - usually), What are snowflakes made of? (ice &...)*

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 1 / Snow Gauge Measuring

Working in pairs, the kids will use paint sticks or yardsticks to measure snow depth in market locations in the garden.

Snow will be measured at same location next week by another class,

In a couple of weeks, the kids will be able to solve math problems to calculate how many inches of snow melted into the ground.

### Part 2/ Mark your container full of Snow \*\*

Fill a clear jar or plastic container with snow about 2/3 full- not all the way to the top. 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. T

take a Vote on the hypothesis. . **UPDATE:** The kids might find 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.

### Part 3/ Plant Silhouette/Shadow

Share some photos of plant silhouettes/shadows against snow.

Silhouette drawing - graphite on white paper - 8 stations in the garden are marked.

In pairs, students will make drawing observations at their station, noticing line, pattern, shadow, shape

### Part 4/ If there's time and enough warmth, gather and recite one of the poems. If not, the kids can take the poem sheet home with them.

*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.

**Winter Sweetness** - by Langston Hughes

This little house is **sugar**.  
Its roof with snow is piled,  
And from its tiny window  
Peeps a maple-sugar child.

**The Tiniest Sound** - by Mel Evans

I used to think  
the tiniest sound in the world  
might be a baby snowflake  
Leaving a little white cloud  
to drift gently down  
through a misty sky  
to the softest spot  
on the tip-top tassel  
of a snuggly cap  
on the snoozely head  
of a **furry**  
Baby  
Bunny.  
What do you think...?

Have you ever written a poem 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.

**\*\*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...  
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