

Taste of Snow

"Mrs. Vaage, J. was eating snow at recess! We told him it was dirty, but he kept eating it!"

A group of girls came rushing in after recess fearfully telling the story of J. taunting them by eating handfuls of fresh snow. J. walked in, pleased with his success, and announced that the snow was clean because there was no yellow.

The girls looked at each other wondering if it were that simple, and I smiled inwardly, because I knew this was a perfect opportunity for both parties to learn through their own experiments.

So, you're sure the snow is clean? How could you prove that? Girls, why are you so positive the snow is not clean and unsanitary, after all, J. said it wasn't yellow snow?

How could you find out what is the truth?

After they discussed the idea of bringing in snow to melt, there were a few things to keep the experiment honest.

What container could the snow melt in? How could you see if it was clean or not if it was a coloured container? How will you know any dirt is from the snow and not from the container? How will you bring the snow into the school? Are the sand pails clean from dirt? The shovels? Maybe you will bring in dirt from the ground.

By asking these clarifying questions, the children set parameters on their experiment. They washed the clear water table to use it as the melting station, and washed out the sand buckets and shovels. They agreed to only take the cleanest top layer of the fresh snow, where there were no footprints or obvious dirt.

The other class members had gathered around contributing their thoughts and ideas and a crew volunteered to do the outside snow gathering, and another crew to carry the snow pails into the classroom and empty them for refilling. Soon a mountain of snow was stacked high in the water table.

Documenting the learning was a familiar concept to them by this time of the year, so they brought out

their science journals to draw and write the steps taken in the experiment. Periodically we made formal observations to comment on what we noticed happening. However, by the end of the day, the snow had not completely melted, and so results and conclusions would have to wait till the next morning.





In the morning, the children entered one by one, and gathered, circling the water table. Looks of disgust were on their faces. Some were confused and asked what happened to the snow, and tried to determine what the black swirls and segments were. They also wanted to

know why the water was brown and not clear like the white snow.

The snow is all melted, and this is what is left. Who can tell me what you notice? What else do you notice? What do you think these bits might be? Why do you supposed the water is brown? Where would the snow have picked up the dirt, because the air looks clean - we don't see any dirt in the air around us? Could the clouds be full of dirt? Do you think there's dirt in the rain in the summer time? Where does the dirt come from?

The theories ranged far and wide, but gradually, they socially constructed the concept of dirt being in the air from pollution, and that snow or rain gradually accumulated bits of that dirty air travelling to the ground. I heard J. say, *I'm never eating snow again...*

One of our students had been away during this experiment, but upon his return, the children filled him in on the experiment and evidence, and showed him their drawings. The next



morning, W. came to school with a large clear bowl covered with plastic wrap. Inside was melted snow. W. shared how he conducted his own experiment after school yesterday to test out the class theories, and confirmed their results by showing his dirty melted snow.

The class soon became the school advocates sharing their information with the other grades.

Gathering snow was not on my daily plan for that day, but active questioning, theory building, and critical thinking are constant priority outcomes for me. Paying attention to the girls, and loving J.'s hypothesis of snow being clean because there was no yellow, was a perfect opportunity for the class to develop an experiment and to show me the evidence of their thinking. The positive energy created by this entrepreneurial adventure was so high, that it motivated W. to replicate it on his own time. This is the mindset of a lifelong learner.