

THE SNOWLAKE MAN

by PUPPETKABOB artist Sarah Frechette
www.puppetkabob.com
802.598.1070

A touring puppet show honoring Wilson "Snowflake" Bentley - pioneer of snowflake photography!

About the Show:

The story of "The Snowflake Man" is inspired by Wilson "Snowflake" Bentley, the self-educated farmer and scientist who attracted world attention in 1885 when he became the first person to photograph a single snow crystal. Awarded an UNIMA Citation of Excellence, this show swings audiences into the historic 1920s through creative storytelling, intricately designed Czech-style marionettes, and a pop-up book of striking water color scenery. "The Snowflake Man" combines art, science, and a little known piece of American history to magical effect!

About the Artist:

Puppetkabob is an award-winning touring puppet company founded in 2001 by puppeteer, artist and arts educator Sarah Frechette. Sarah is a graduate of the University of Connecticut's unique Puppetry Arts Program. She studied marionettes with legendary German puppeteer Albrecht Roser and has performed with string puppets in Germany, Austria, China, Canada and across the United States. Sarah's costume work can be seen in New York City on Broadway, as well as, in the stop-motion film "ParaNorman" produced by local stop-motion animation film studio LAIKA. This past year, Sarah presented "The Snowflake Man" at the Detroit Institute of Art and at the Puppets Up! Puppet Festival in Ontario, Canada!

As Artistic Director of Puppetkabob, Sarah blends science and history with puppetry arts to create for audiences a dynamic and interactive theater experience.

"The audience was enchanted by the small scale, precision and charm of Frechette's performance. Her simple compact puppet presentation is spot on. Her simple puppets are eloquent in manipulation. The simplicity of her presentation can't hide her mastery her art form." ... UNIMA-USA



The Snowflake Man covers Science, History and Math units such as:
Weather, Symmetry in Motion, Weather Patterns, Changes in Weather, Physical Science, Scientific Inquiry, Data & Statistics, and Important people of the past

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ONLINE TEACHER RESOURCES

Snowflake Sites:

Jericho Historical Society... www.snowflakebentley.com

Dr.Emoto... www.masaru-emoto.net/english/index.html

Professor Kenneth Libbrecht... www.snowcrystals.com/

Snowflake Activities:

Scholastic... www.scholastic.com/parents/resources/article/craft-activities/snowflake-study

Brain Pop... www.brainpop.com/educators/community/bp-topic/snowflakes/

Create your own Snowflake Online Game... snowflakes.barkleyus.com

Snowflake Videos:

Science Friday... <http://www.sciencefriday.com/videos/snowflake-safari/>

CBS News Online... www.youtube.com/watch?v=AjDA4QCA8rI

SNOWFLAKE GAMES

Snowflake Trivia:

How many inches of snow does it take to melt down to 1 inch of water?

Answer: 10 inches

The difference comes from the air trapped in snow ice crystals and the density of the snow. Test this scientific fact by simply filling a tall water glass with snow and watching it melt. The lighter and fluffier the snow the faster it melts.

True or False? Snowflake are just frozen raindrops.

Answer: False

Frozen rain is sleet or more simply frozen drops of water. They are not crystalline in formation. Snowflakes are frozen molecules of water that have joined together to make prisms and dendrites.

True or False? No two snow crystals are like.

Answer: True

Snowflakes form when water droplets in the clouds freeze to form a six-sided crystal structure. As the crystals fall to earth, they experience many changes in temperature and humidity, which greatly affects how the snow crystal forms. That is why “no two are alike” and each have their own unique pattern.

Snowflake Jokes:

Q: What do Snowflakes eat for lunch?
A: Icebergers!

Q: What do you get if you cross a shark and a snowflake?
A: Frost bite!

Q: How do snowflakes travel around?
A: They ride their icicles!

Q: Where do snowflakes go to dance?
A: Snowballs!

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READING MATERIALS

Non-Fiction

Snowflakes in Photographs (Dover Publications) by W.A. Bentley

Snow Crystals (Dover Publications) by W.A. Bentley and W.J. Humphreys

The Snowflake: Winter's Secret Beauty by Kenneth Libbrecht

The Hidden Messages in Water by Masaru Emoto

Snowflake Bentley by Jacqueline Briggs Martin

My Brother Loved Snowflakes: The Story of Wilson A. Bentley, The Snowflake Man by Mary Bahr

Fiction

Pre-K

The Jacket I Wear in the Snow by Shirley Neitzel

The Biggest, Best Snowman by Margery Cuyler

K-1

Red Sled by Leda Judge

First Snow by Emily McCully

Snow on Snow on Snow by Cheryl Chapman

Over and Under the Snow by Kate Messner

It's Snowing! It's Snowing! by Jack Prelutsky

2-3

Snowshoe Thompson by Nancy Smiler Levinson

Snow Dance by Peggy Thomas

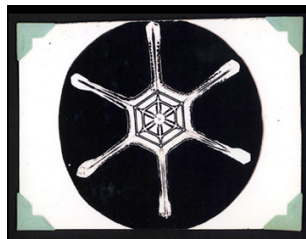
The Three Snow Bears by Jan Brett

4-5

Twelve Kinds of Ice by Ellen Bryan Obed

Snow Treasure by Marie Mcswigan

The Snow Queen by Hans Christian Andersen



Books Recommended by Georgia Elementary and Middle School Librarian Amy Rider

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QUESTIONING SNOWFLAKE BENTLEY

Ask the students - "Do you think like Snowflake Bentley?"

When Snowflake Bentley was a young boy he spent many winters looking through a microscope and drawing snow crystals pictures. Even though Snowflake Bentley found that he couldn't draw fast enough because the snow crystals would often melt before he could finish the picture, why do you think he kept trying?

Why, when Snowflake Bentley's brother went outside to make snowmen and snow forts was Snowflake Bentley in the woodshed? Was this a silly thing for him to do?

After Snowflake Bentley convinced his parents to buy him a special camera and microscope to take pictures of snow crystals he spent three whole winters trying and failing. Why didn't he sell the camera?

How do you think Snowflake Bentley felt the day he developed his first photo negative, using his invented Bellows Camera combined Compound Microscope method, and found a clear image of a snow crystal on it?

CLASSROOM ACTIVITIES

-Create your own Snow Storm! Have every student assemble or cut out their own snowflake and hang them around the room or on the bulletin board. Soon they will see that – no two are alike!
Step by step how to cut a 6 sided snowflake... www.instructables.com/id/Make-A-6-sided-snowflake/

-Have the students create an Acrostic Poem – using words such as Snowflake, Weather, Snow, etc.

Snow crystals gently falling
Now cover trees and mountains big
On my tongue they land
Winters beauty is so neat

-Create your own Jigsaw Puzzle! Have every student draw their own snowy scene and then cut it into pieces. Trade it with a friend and try to Jigsaw the Puzzle back together.

-Catch your own Snow Crystals. Place black construction paper in the freezer. On a nice snowy day take the cold paper outside and catch some snow crystals on it. The cold paper will help keep the crystals cold so that they don't melt as soon as they land.

-Diary Entry: a day in the life of Snowflake Bentley! Have every student imagine they are a scientist and photographer just like Snowflake Bentley. Write a diary entry describing a day in your life. Describe what it feels like to be outdoors during winter. What do you hear, smell, see and feel during the cold and snowy season?