

Lesson Title: Winter Watercolor Science: Snowflake Resists

Your name: Rachel Vredenburg

Number of Students: 20
Grade Level: Kindergarten

Length of each class period 3 Days: 40 minutes

LESSON Rationale

This lesson focuses on exciting experimentation and adventure by connecting art to physical science and literature. For instance, students will be reminded of scientific principles as they create oil pastel snowflake resists with a watercolor background. They will use winter colors such as blue and purple to paint the background; however, as the oil and water do not mix, the snowflake shapes will remain untouched. Additionally, they will explore the scientific law that water exists in three phases, which ties into their creation of project as the snowflakes represent water as a solid, the tempera uses the liquid form, and as it evaporates the water enters the state of gas. This is especially appropriate as Southeastern Elementary just experienced several consecutive snow days. By connecting art to this recent experience, they will further enforce their knowledge of this natural phenomenon. It is important to encourage the natural curiosity students have at the kindergarten level and provide a space to explore and experiment with art materials that are not usually combined or used to make art, such as common table salt and tempera. This will change the way they look at art materials and expand their understanding of scientific principles in a hands-on experience.

Further, they will listen to a short read aloud of *The Snowy Day* by Ezra Jack Keats. This book is particularly strong in grasping the feelings associated with the snow days. This will inspire students to create a meaningful work based on prior experience. Keats also incorporates a plethora of patterns into his illustrations that correspond to the snowflake patterns that students will create in this lesson. By drawing connections to this adventurous book, students will be inspired to explore natural science and experiment with several media during this project. Students will also connect to the book and the main character, Peter, as he is an African American protagonist and most students will identify with his adventures based on their own experiences during the first week of Student teaching.

PROCESS

Watercolor resist using pastels

Salt patterning in watercolor/tempera cakes

ARTISTS:

Ezra Jack Keats:

“Ezra Jack Keats (1916-1983) was a pioneer in American children’s literature. He based the lives of his multiracial characters on his childhood but added loving parents, friends and pets. He wanted no child to be an outsider. “If we could see each other exactly as the other is,” he wrote, “this would be a different world” (Ezra Jack Keats Foundation, 2025). His stories continue to inspire even after decades of publication.

Commented [MT1]: Great unit/lesson, Rachel! Very age appropriate and tied to bigger ideas and the science SOLs. Well done!

Commented [MT2]: I think it will be helpful to include how many class days will be needed for the lesson up front too. Thanks!

Commented [MT3]: I think it would be helpful to include a brief description of the activity in your rationale so that the reader can make connections to the ideas and the artmaking as they read. Thanks!

Bisa Butler:

Born in 1973, Bisa Butler is an African American artist who works in quilting. She earned her “bachelor’s in fine arts at Howard University in the early 1990s” and “then went on to earn a Master’s in Art from Montclair State University in 2005” (Urist, 2023 & Butler 2022). She now makes quilted portraits made entirely of fabric (Urist, 2023). Her work is incredibly vibrant and uses intricate patterns to portray each subject.

BIG IDEA(s): Experimentation/Adventure

LEARNER OBJECTIVES:

Commented [MT4]: Good objectives!

Students will be able to observe connections between their personal experience and Peter’s experience in *The Snowy Day* by Ezra Jack Keats

Students will follow directions to draw different types of snowflakes

Students will observe patterns in *The Snowy Day* and notice some are natural and some are human made

Students will experiment with tempera cakes to create a background

Students will test and observe how everyday materials, such as salt, may be used to make art.

3 National Standards for Visual Arts (VAS) (list numbers and full description for each standard) [National Visual Arts Standards At-A-Glance • National Art Education Association \(arteducators.org\)](#)

VA:Cr2.1.Ka: Through experimentation, build skills in various media and approaches to artmaking.

VA:Re.7.2.Ka: Describe what an image represents.

VA:Cn10.1.Ka: Create art that tells a story about a life experience.

3 VA State Standards of Learning (SOL) in the arts: [Visual Arts | Virginia Department of Education](#)

K.3 The student will analyze and interpret artwork using art vocabulary.

a) Describe works of art. b) Describe objects in the environment by their visual qualities (e.g., location, size, color, texture, line, shape, pattern). c) Describe ideas, experiences, and feelings expressed in personal and other works of art.

K.17 The student will create artworks inspired by a variety of sources and subjects b) Use nature as inspiration.

K.8 The student will identify information about art from provided resources.

Kindergarten Science SOLs

K.4 The student will investigate and understand that water is important in our daily lives and has properties. Key ideas include a) water has many uses; b)

water can be found in many places; c) water occurs in different phases; and d) water flows downhill.

Commented [MT5]: Awesome!! Great work!

MATERIALS NEEDED FOR UNIT (*be specific*: how many of each item, what size paper, what color markers/paper, what kind of recycled materials, what size brushes, what kind of markers finepoint/broad tip, name tags, permission slips, etc.)

- A. **Art Supplies:** 20 sheets of 9x12," 80lbs painting paper per class, 20 medium flat or round brushes, 6 small containers of salt (1 per group), tempera cakes in differing shades of blue and purple for a winter vibe, 20 white oil pastels, 20 5x7" pieces of scratch paper for practicing 20 messy mats per class.

Commented [MT6]: I am not sure if this is a one day or multiple day lesson, but if possible, I would use larger paper. The lower levels have an easier time drawing large scale.

B. Additional Materials:

[The Snowy Day Read Aloud](#)

Commented [RV7]: (I am almost torn on doing a state of water video) What do you think? I like the thematic snow connection a lot.

[States of Water Video](#)

Commented [MT8R7]: If you could find something short and sweet that meets them at their level, that could be a nice tie-in.

[PowerPoint Presentation linked here.](#)

Commented [MT9]: Powerpoint looks great! I left one comment in google slides.

VOCABULARY/DEFINITIONS:

States of water: (Solid, liquid, gas)

Solid: a solid object

Liquid: watery state of matter

Gas: airborne water, evaporated

Salt: not just a cooking ingredient, but an art material too!

Watercolor: liquid phase of water with paint included

Wax versus water: They have different properties and don't mix!

MOTIVATING STUDENTS: PERSONAL and SOCIAL RELEVANCE (How does this unit of instruction motivate students to want to participate or be interested in the content? How will you present the information so that it is personally and socially relevant to your age group? How will you relate or explain any historical references in relation to current/contemporary culture?)

Students just experienced a couple of snow days right after Martin Luther King Jr. Day. They can draw on that recent, fun memory and positive association to complete this project. It is a very hands-on process so students will enjoy completing each step and the magic of science associated with it. Students will listen to a storytelling of Ezra John Keats's "Snowy Day" and be inspired by the vibrant patterns and peter's snowy adventure he captures in his illustrations. They will understand that snowflake patterns are natural while their footprints and the patterns in the book illustrations are human-made.

UNIT PROCEDURES (Remember do not write in first person) As part of the planning process create teaching samples for your own learning purposes, and a series of process samples and visuals to use in teaching each lesson. Include 4-6 process images at the end of each lesson plan.

A. **Teacher/Classroom Prep:** *(List tasks that the teacher needs to accomplish before each lesson begins such as: prepare PPT, print*

Teacher will prepare a PowerPoint presentation, separate blue and purple tempera cakes tempera for this activity, prepare white pastels at each table, and a worksheet about snowflakes.

B. **Pre-assessment:**

Students will understand that water has different forms and differentiate between natural patterns, like snowflakes, versus human made patterns, like footprints. Students will think about how their art can represent their own snowy adventures last week.

C. **Behavioral Expectations:**

Students are expected to sit in their seats, listen while the teacher is talking, and participate in any class discussion. They will use materials responsibly by following along with the demonstrations.

D. **Organizer:**

The teacher will create a PowerPoint to share important ideas and vocabulary with students. The teacher will actively use said vocabulary when conducting different demonstrations at each stage of the project so that students may follow along and build certain skills such as drawing painting, and sprinkling.

E. **Extension Activity:** *(students who finish task early should have another activity or station to continue to be engaged during class time. Explain that activity/work station)*

Students may free draw or solve a snowflake themed maze add color it with crayons.

UNIT SEQUENCE (scripting and timing).

Be very specific from beginning to end. Remember to include material distribution, cleanup and closure. While writing keep in mind that the scripting must be **detailed enough so that a substitute or colleague should be able to teach your lesson from the info you provide.**

3 days/classes:

Teacher Actions DAY 1 (12:40-1:20)

12:40 Teacher will greet students and invite them to take their seats

Expected Learner Actions DAY 1

12:40 Students will say hello to Mrs. V and Mrs. T

12:43-12:55 Teacher will explain the big idea of experimentation/exploration through a thematic PowerPoint presentation. The teacher will emphasize connections to science and the phases of water. Teacher will also connect the art element of pattern to the lesson and the purpose of pattern in the book "The Snowy Day" by Ezra Jack Keats. The teacher will share fun facts about snowflakes and ask students questions about what they saw in the book and how they can connect it to the snow days they just experienced themselves.

12:55-12:57: The teacher will pass out 5x7" pieces of paper and baskets of crayons to each group. Teacher will remind students to write their names on the back as soon as they get their paper.

12:57-1:10 Teacher will conduct a demonstration via the document camera, in which students will follow along and practice constructing a snowflake in any color they choose. The teacher will leave an array of different snowflake examples on the board as inspiration during this demo as well as an image on each sheet of paper to practice tracing

1:10-1:16: Teacher will walk around and admire students' work, encouraging their creative choices and congratulating them on the outcome.

1:16-: Teacher will announce cleanup and ask that students use walking feet when returning their crayon baskets to the purple crayon storage station.

1:16-1:18: Teacher will collect student work by the end of the class.

1:18 Teacher will announce lineup so that they are ready when their homeroom teacher returns.

1:20: The homeroom teacher picks up students and the teacher says goodbye as they leave.

DAY 2

12:40: Teacher will greet students as they arrive and listen to their cool stories from over the weekend.

12:43-12:55 Teacher will briefly recap on the big ideas and remind students that they are working on snowflake projects today. The teacher will pass out messy mats, a larger, 8x10" piece of paper, and white oil pastels for everyone. Teacher will remind students to put their names on the back using the pencils on each table. Then, the teacher will demonstrate how to draw snowflakes again, but this time using a white pastel.

12:55-1:00: The teacher will continue to demonstrate the process, and students will watch the next steps: adding shades of blue and purple to the background. Finally, the

12:43-12:55 Students will listen while the teacher is talking and enthusiastically answer questions about what they observed in the book.

12:55-12:57: The teacher will pass out 5x7" pieces of paper and baskets of crayons to each group. Students will write their names on the back as soon as they get their paper.

12:57-1:10 Students will follow along with the demo and use mark making techniques to practice their understanding of snowflakes according to the lesson.

1:10-1:16: Students might have difficulty: "I can't do it 😞" "Yes you can, you've got this! Remember how we made our six lines crisscrossing and then added our arrows? Show me how you draw your lines first." "That looks great, see, you can do it!" Students will use the demo as their point of reference.

1:16-: Students will use classroom safety and walk to put away their supplies.

1:16-1:18: Students will walk over and carefully place their drawings on the drying rack for storage.

1:18 Students will line up with minimal running.

1:20: The homeroom teacher picks up students and students thank the teachers and say goodbye as they leave.

DAY 2

12:40: Students will say hello as they enter the classroom.

12:43-12:55 Students will listen to their teacher and be reminded of what they started last week. Students will write their names on the back of the larger papers when prompted.

12:55-1:00: Students will flip their papers back over and follow along with pastels. Students will declare that they are done with pastels in order to trade in their pastels for tempera cakes and paint brushes.

1:00-1:10: Students will declare that they are done with tempera in order to use the salt.

1:10: Teacher will announce a time check that there are 5 more minutes of worktime and this is your chance to add salt to the paint while it is still wet! Students will sprinkle a tiny bit onto their wet paint.

1:16-1:18: Students will clean up efficiently when the teacher asks. Students will wash their hands in an orderly fashion if they need to.

1:18 Students will line up without shoving any of their friends.

Commented [MT10]: How will you facilitate the demo? Projection with a document camera? Gather around you?

Commented [MT11]: Would you just have them make a stack since they won't be wet?

Commented [MT12]: Can you have them work larger?

Commented [VR13R12]: I could, but she suggested a smaller scale for the youngest group. Larger paper is an older kid privilege in her class

teacher will pinch a little salt onto the wet backgrounds.

1:00-1:10: Teacher will walk around and pass out paint once students turn in their oil pastels. Teacher will check in on students as they add the tempera.

1:10: Teacher will announce a time check that there are 5 more minutes of worktime to sprinkle salt. Teacher will pass out salt to tables that have finished with paint.

1:16-1:18: Teacher will announce cleanup and ask that students use walking feet when washing their hands. Teacher will remind students that they will put their snowflakes on the drying rack until next time.

1:18 Teacher will announce lineup so that they are ready when their homeroom teacher returns. While they wait, teacher will ask *several closing questions: What does this image represent? A Story? A memory you have from our snow days?*

1:20: The homeroom teacher picks up students and the teacher says goodbye as they leave.

Day 3

12:40: Teacher will greet students as they arrive.

12:43-12:50 Teacher will briefly recap on the big ideas and remind students that they are working on snowflake projects for the last day today. Students will watch a really short video on the states of water. The teacher will pass out student's, 9x12" piece of paper, from last time. Then, the teacher will ask students what they remembered from last time.

12:50-12:55: Finally, teacher will demonstrate how to create mini footprints/path on their, now-dry projects using white tempera on their fingertips. Students who do not want to use their hands may use a brush. Teacher will remind students to roll up their sleeves before starting.

12:55-1:10: Teacher will walk around and pass out paint. Teacher will check in on students as they add the tempera.

1:10: Teacher will announce a time check that there are 5 more minutes of worktime finish up. Teacher will notify students that they may

1:20: Students say goodbye to Mrs. T and Ms. V as they leave.

Day 3

12:40: Students will say hello to Mrs. T and Ms. V and take their art seats.

12:43-12:50: Students will listen to the brief recap and participate in the discussion.

12:50-2:52: Students will interact when teacher asks questions about the footprint demo. Is this a natural pattern? Or do humans make these? "They're from people cause it's people's feet that make the pattern in the snow." "Exactly right!"

1:00-1:10: Students will politely ask for a brush if they do not want to do fingerpainting. Students will carefully make paths of footprints all throughout their snowstorm.

1:10: Teacher will announce a time check that there are 5 more minutes of worktime and students will place finished paintings on the drying rack. Early finishers may complete the snowman coloring sheet and draw in more snowflakes or free draw

1:16-1:18: Teacher will announce cleanup students will use walking feet when washing their hands and placing paintings on the drying rack.

1:18 Students will line up lineup so that they are ready when their homeroom teacher returns. While they wait, students will answer *several closing questions: How did you create their own path today? Did they make footprints like this during the snow days?*

"I ran all over my yard and the whole neighborhood!" I built a snowman with my friend"

1:20: The homeroom teacher picks up students and students say goodbye as they leave.

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Commented [MT14]: Can you have them work larger?

Commented [VR15R14]: I could, but she suggested a smaller scale for the youngest group. Larger paper is an older kid privilege in her class

color or complete the snowflake maze after the place their drawings on the drying rack.

1:16-1:18: Teacher will announce cleanup and ask that students use walking feet when washing their hands and only 2 at a time may use the sink.

1:18 Teacher will announce lineup so that they are ready when their homeroom teacher returns.

1:20: The homeroom teacher picks up students and the teacher says goodbye as they leave.

ADAPTATIONS AND RECOMMENDATIONS: (Note accommodations for Students with Special Needs as well as any classroom management strategies. Provide examples in your descriptions. This is not optional.)

Students who dislike the texture of pastels may wrap theirs in a paper towel. Or they could use a white crayon. Students who require more movement may stand while creating their projects. Classroom management strategies include reminding all students to keep their eyes on Ms. V before she can continue.

DIFFERENTIATION STRATEGIES: (These should also be reflected in the unit sequence. When will you integrate these strategies into your planning? Be specific in your scripting/sequencing.)

- Flexible grouping
- Open-ended activities
- Exploration by interests
- Negotiated criteria
- Anchoring/Extension activities
- Independent studies
- Tiered activities/products
- Journal prompts
- Multiple levels of questions
- Scaffolding
- Choice: Learner profile, Readiness, Interest

ASSESSMENT & DOCUMENTATION OF TEACHER/STUDENT LEARNING

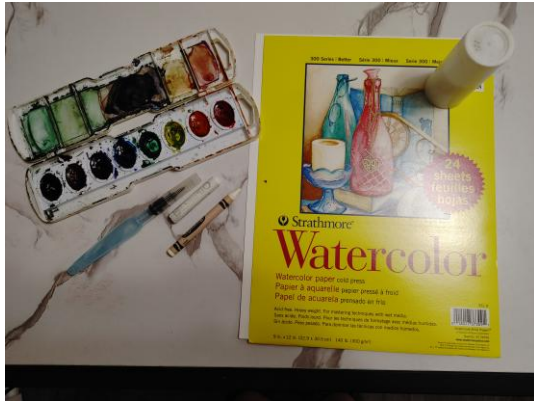
A. Assessment:

The scaffolding in this lesson will start immediately with the question in the PowerPoint as part of the formative assessment. As students execute these processes of drawing, painting, etc., they will be prompted to answer what state of water they are using to paint. What state will it be when it dries (gas; evaporated). For the summative assessment students will reflect on several closing questions: What does this image represent? A Story? A memory you have from our snow days? They will also get to display their -work in the hallway.

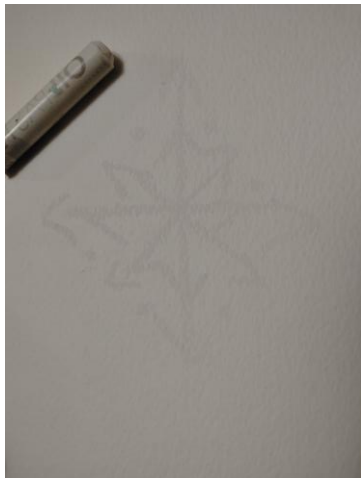
B. Documentation:

The final documentation of this lesson will be a miniature art display of the pieces from this project to hang in the hallway and bring these beautiful works of winter art to their peers/teachers.

PROCESS IMAGES



Step1: Gather materials including watercolor or tempera cakes, brushes, pastels, salt, and watercolor/painting paper.



Step 2: Using a crayon or oil pastel, draw out the snowflake shapes (they will be a little hard to see during this step.) tilt your paper to see them clearer!



Step 3: Using your brush, wet the paper, then add watercolor to the paper, to reveal the crayon underneath.



Step 4: Once the whole page is covered, shake just a little bit of salt over the watercolor while it is still wet!



Step 5: Using your finger or a brush, dab your footprints onto the snow!



Step 6: Admire your final piece!

References

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- Buddy Son Storytime. (2021, February 22). *The Snowy Day by Ezra Jack Keats – Read aloud with music in HD fullscreen!* Www.youtube.com. https://www.youtube.com/watch?v=Owd_FSIn6ss
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- Ezra Jack Keats Foundation. (2025). *Ezra Jack Keats Foundation - About Ezra*. The Ezra Jack Keats Foundation. <https://www.ejkf.org/about-ezra/>.
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