Lesson Title: Making a Model of Watercolor Techniques
Subject / Grade Level: Watercolor X-Block / 6th, 7th, 8th grades

Making a Model of Watercolor Techniques

CONTEXT

Provide context for the lesson. How, if at all, does it fit within a unit? Who are the learners? How long will the lesson last?

We are working with Watercolors currently in class. To demonstrate the way different techniques can be achieved using different substances with watercolor, we will use rubbing alcohol, salt, and oil pastels and watercolor on paper. The chemical reactions between these substances, the water, and the paint will affect the way in which watercolor appears on paper. The 6th, 7th, and 8th grade students will predict what affect the different substances have on watercolor, test their theory, report on what they discovered, and keep their paper as a model for achieving different effects in watercolor by using different mediums and additives. The lesson will last 40 minutes.

COMMON CORE STANDARDS

If applicable, provide specific standards that the lesson will target. Indicate if the standard is being introduced (I), practiced (P), or assessed (A) in this lesson.

Science and Engineering Practices from the NGSS that will be used in this lesson:
1. Asking questions and defining problems
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
6. Constructing explanations
7. Engaging in argument from evidence
8. Obtaining, evaluating, and communicating information

Common Core Standards:
SL.8.1.a–d. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 8 topics, texts, and issues,* building on others' ideas and expressing their own clearly. (MS-LS2-2)
MS-ETS1-4. Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.
SL.8.5. Integrate multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points. (MS-ESS2-1),(MS-ESS2-2)

GOALS

What are your goals for the lesson? Specifically, by the end of the lesson, 1) what do you want students to *know*? 2) what do you want students to be able to *do*? and 3) what you want them to *understand*? Not all lessons will have all goal-types.

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1. Students will know that different effects can be achieved through using different additives and media with watercolor because of chemical reactions.
2. Students will create a model of what it looks like when watercolors react to rubbing alcohol, salt, oil pastels, more water, and less water.
3. Students will understand that chemical reactions take place in many parts of our lives and can be helpful in creating art.

ANTICIPATORY PLANNING

Put yourself in the shoes of your students. Where in the lesson do you anticipate that they will struggle, and why? What questions, about procedures and/or about the content, do you anticipate that they might pose? How will you respond?

Struggle	**Response**
Sharing supplies	All supplies will be easy to access in middle of table
Having enough predictions	I will have some examples ready to spark ideas
Overuse of materials	I will demonstrate clearly the amount of product needed before they experiment
Running out of time to reflect at end of lesson	I will make sure to buffer for extra time for reflection and clean up at the end

PROCEDURE

Please provide specific descriptions of all activities, including estimated times and who/what/where, scripts of key points you plan to emphasize and questions that you plan to ask, and examples of what students might think or do.

Framing or Launching the lesson (connections, context, norms, or objective)

Connections:

We have been experimenting with watercolors. Let's go further and see how they will react to different amounts of water usage and chemical substances.

Context:

Artists experiment with different combinations of media to achieve different effects, just like scientists. There is a lot of science that goes into creating art.

Norms:

- Share the materials
- Treat the materials kindly
- All of us have valuable ideas to contribute

Objective:

The idea and hope behind this project is to focus on the process of discovery and experimentation and to have a model of several different watercolor techniques to refer to in the future.

During the lesson:

1. Each student will receive a sheet of watercolor paper and a pencil. On each table there will be trays of watercolor paints, oil pastels, 4 cups of rubbing alcohol, 4 cups of salt, and some q-tips.
2. On the white board I will illustrate where the title of the project should go and where to put the 6 experiment boxes. Under each box, I will ask them to write out the different techniques that we are going to try. As we are writing out these techniques, we will brainstorm what we think we know about how the watercolor will react. I will write these predictions on the white board.
3. We will experiment with the watercolors
    a. Wet-on-wet technique
    b. Rubbing alcohol
    c. Salt
    d. Thick and thin lines
    e. Oil pastel
    f. Student choice

Closing the lesson (synthesizing, checking for understanding, or connecting to the future)**:**

Synthesizing

We will have a Gallery Walk so all students can see what everyone's model looks like and how the different additives reacted to the watercolor.

Checking for understanding

We will have a whole class open sharing session to talk about how the additives reacted to the watercolor and what type of effect the reaction produced. These ideas will be written on the white board next to our predictions. We will discuss the differences and similarities between our predictions and what actually happened.

Connecting to the future

You can refer to these models in the future when you are trying to achieve a specific effect while you are using watercolors or when you are studying how salt, rubbing alcohol, or oil react to water.

DIFFERENTIATION/ACCOMMODATION

How might you provide multiple means of representation, multiple means of expression, and multiple means of engagement?

Students will be able to choose where they would like to sit so they can be next to someone who helps them feel comfortable and confident in class. Students will have individual think time, partner share time, and whole-class discussion time to allow for different levels of engagement with the content. Instructions will be displayed in a slide and ideas will be written

on the white board so students can access the information through verbal and visual means. Students will be allowed to move around the room to see the results at other tables. Collaboration on ideas will end the lesson, giving space for everyone's voice to be heard.

FORMATIVE ASSESSMENT

How will you access students' thinking throughout the lesson? What are key moments to check for understanding?

Thinking will be accessed at the beginning of the lesson through the brainstorming (prior knowledge gathering) activity, throughout the lesson by walking around the room and allowing for students to share what they see is happening, and at the end of the lesson by talking about what we experienced and how that is related to what we thought we knew in the brainstorming activity.

SUMMATIVE ASSESSMENT

How will you know if your students meet the goals of the lesson? What artifacts of student work will you collect?

The artifacts of student work will be the model the students will paint with watercolor and additives.

MATERIALS & PREP

What materials will you need to prepare ahead of time? How will the room be set up? What other logistical considerations do you want to plan for? Provide links to documents and/or slides if applicable.

- Watercolor paper
- Watercolors
- Paint brushes
- Water bowls or cups
- Salt
- Cups for salt
- Rubbing alcohol
- Cups for rubbing alcohol
- Q-tips
- Oil pastels
- Cups for oil pastels