

Environment Change Through the Seasons Date: TBD Grade 1/Science

ABSTRACT (write last)

Students will create a stop motion video using drawings or clay, displaying the same scene changing through the seasons. Fall, Winter, Spring, and Summer must be shown in their video, and it must be clear which season is displayed in the video's designated section. Students will complete in groups of 3; each will be provided with an iPad. If a student wishes to work on their own, they may. The stop-motion video will be created using Stop Motion. Students must voice over the completed stop motion and explain the seasonal changes in their video.

Ex: A tree is in full blossom (summer), but the flowers and leaves turn yellow and fall off (fall), the tree becomes covered in snow (winter), and the tree begins to grow green leaves and flower buds (spring).

CURRICULAR OUTCOMES

Grade 1 Science

Organizing Idea

• Earth Systems: Understandings of the living world, Earth, and space are deepened by investigating natural systems and their interactions.

Guiding Question

• In what ways can environments change?

Learning Outcome

• Students analyze environments and investigate interactions and changes.

Knowledge

- The four seasons in Alberta are
 - o summer
 - o autumn or fall
 - winter
 - spring

Understanding

• Changes in environments include seasonal changes.

Grade 1 CTF

- P3: Students will communicate through multimedia
- 1.3 access sound clips or recorded voice to support communication

Grade 1 Fine Arts

Learning Outcome

- Analysis: Students will notice commonalities within classes of natural objects or forms.
 - Natural forms have different surface qualities in colour, texture and tone.
 - o Natural forms display patterns and make patterns.

I Can Statements:

- o I can name the four seasons: summer, autumn (fall), winter, and spring.
- o I can recognize changes in the environment during different seasons.
- o I can understand how the weather and the environment change in each season.
- o I can use videos to show my ideas.
- I can notice how natural things, like leaves and rocks, have different colors, textures, and tones.
- I can see patterns in nature and create patterns from what I see.

REAL-WORLD RELEVANCE

- Students must recognize which environmental changes occur when the seasons change. Seasonal
 characteristics become familiar, allowing learners to remember and recognize when the seasons change and
 how this impacts our environment and daily practices.
- Utilizing technology is crucial for learners, as technology is only becoming more prominent. Getting students familiar with integrating tech in a classroom, even if it is only taking pictures to turn into a video, gets learners familiar and comfortable with using tech in education.

DIFFERENTIATION

- Students can work in groups to share knowledge and develop understanding learning from one another.
- If a student prefers to work independently, such as a special needs learner or one with anxiety, they may.
- Using technology and art in this science lesson creates a more hands-on experience, aiding learners who may have yet to fully grasp topics through lecture-styled lessons and facilitating different learning styles.

RESOURCES/MATERIALS

- iPads per group (or student if they wish to work on their own)
- Plasticine/clay
- Stop Motion
- Paper
- Pencils
- Pencil crayons

Learning Tasks				
Intro/Hook				
Time	Learning Activities	Diagnostic assessment		
5 min	We will review the four seasons and what changes	A conversation between the students		

appear throughout each season.

- o Fall, leaves turn orange and yellow and fall off.
 - "What do we know about fall? What is fall? What does fall look like? When does it take place?"
- o Winter, snow
 - "What do we know about winter? What is winter? What does winter look like? When does it take place?"
- Spring, leaves start to grow back green, and blossoms begin to form
 - "What is spring? What does spring look like? What do we know about spring? When does it take place?"
- Summer, full blossom
 - What is summer? What does summer look like? What do we know about summer? When does it take place?"

Students' responses throughout the conversation will be recorded on the whiteboard.

- Students will be introduced to the assignment for the day by creating a stop-motion video displaying the season change.
- Students will be given a minute to pick their groups. If they want to be in a group, each member will send one person to grab the group an iPad.
- We will open the app in front of the class and provide a rundown of how to set up your video while students follow along using their own iPads. We will then explain how to use the stop-motion app to create a video and show an example of a completed project.
 - Tree seasons animation

We will display the rubric on the whiteboard and explain how their stop motions will be graded based on said rubric.

■ Stop Motion Rubric

Students can ask any final questions before we give them work time.

and the teacher. This will allow us to grasp how well students grasp the concepts of seasons. Students will contribute what they know about each season in conversation, allowing educators to pinpoint any misconceptions or gaps in understanding which we can address right away

Throughout the explanation of the assignment we will ask guiding questions to ensure that the assignment is well understood. A few question examples can be found here:

■ Stop Motion Diagnostic Asses...

Development:				
Time	Learning Activities	Formative Assessment		
1 hour	• In groups of up to 3, students want to present each season.	Here is a checklist for students as they complete the assignment. This is based directly on the rubric, so		

Ex: with clay, with drawings, with paper cutouts

• Students will also decide what scene they will present for the stop-motion.

o Ex: A tree, a landscape, a lake, etc...

Once their plan is created, the students will bring it to the educators for approval and to ensure that it is on track.

 Once approved, students will be given the remainder of the lesson to complete their stop-motions and share them with the teacher. Students will follow the checklist while completing their stop-motions to ensure they are on track.

• Stop Motion Checklist

students are not blindsided by what they need to complete the task successfully.

■ Stop Motion Checklist

Students must have their ideas approved before they complete the assignment, which provides educators with an opportunity to informally assess students' understanding of the assignment and the seasons/their attributes

We will circulate the class while students work to ensure they are on track and ask guiding questions to encourage deeper thinking.

Closure:

Closure.				
Time	Learning Activities	Assessment		
20 mins	Students will present completed stop motions to the class on the smartboard. Students will mark their stop-motion video after it is presented using the rubric created as a self-assessment. An educator will sit with the group while they mark to ensure students understand the rubric as they are young learners. This will be done with guiding questions where students will mark how well they feel they fulfilled the question from 1-4. Did you display all four seasons or miss one or two? Did you create an effective plan for your assignment? Was your chosen scene an excellent way to represent	Students will be marked using the rubric introduced at the beginning of the lesson so they are aware of what and how they are being graded. Students will also be provided with the opportunity to self-assess their work, which will be an effective way to aid students' understanding of assessment throughout education early on.		
	 seasons? Did you work well with your group? Or could you have done more to help? Did you complete the stop-motion video as a whole? Or would you change some aspects? Is your stop-motion creative? 			

Teacher Candidate Reflections

This lesson may be advanced for grade 1 but could be very successful and educational with proper scaffolding. This lesson could also be tweaked for older grades with appropriate outcomes; for example, it could connect to the climate and weather portions of grade 5 science.

- My_Stop_Motion_Movie.MOV
- My Stop Motion Movie(2).MOV