Topic: Exploring Patterning with Traditional Métis Sashes

Subject: Math

Materials Needed:

- 1. Traditional Métis sashes (pictures/videos included, real sashes are not included).
- 2. Chart paper or whiteboard.
- 3. Math journals or paper (a math journal in this context is a workbook with plain paper).
- 4. Patterned blocks or other manipulatives for creating patterns.
- 5. Worksheets with pattern activities (included).
- 6. Images or videos showcasing Métis culture (slideshow included).

7. Red and white colored string or yarn, masking tape, scissors & black marker to create mini sash bracelets.

8. Assessment tools (a few templates included).

Lessons:

Over the course of three 30-minute lessons, students will engage in activities to learn more about the Métis sash, including patterns, and cultural significance. These lessons offer the flexibility to extend activities into additional periods and to integrate English Language Arts.

Objectives:

Through these lessons, students will not only develop their understanding of patterning in math but also gain insight into the cultural significance of patterns within the Métis community. By exploring traditional Métis sashes and creating their own patterns, students will engage in hands-on learning experiences, connecting math concepts to real-world contexts.

1. Students will be able to recognize and create patterns using traditional Métis sashes.

2. Students will understand the significance of patterns in Métis culture.

3. Students will demonstrate their understanding of patterning through hands-on activities and discussions.

| Topic: Exploring Patterning with Traditional Métis Sashes | Lesson: 1 | Date: |
|---|------------------|----------|
| Subjects: Math | Time: 30 minutes | Grade: 1 |

Intents/Objectives/Purpose

Objective: Students will understand the significance of patterns in Métis culture.

Curricular Connection (new Alberta Math curriculum):

GUIDING QUESTION: What can patterns communicate?

ORGANIZING IDEA: Patterns: Awareness of patterns supports problem solving in various situations.

KNOWLEDGE:

A pattern core is a sequence of one or more elements that repeats as a unit.

| Activities | Time | Displays/ Resources |
|---|--|-------------------------|
| Introduction/Set/Advanced Organizers Begin by discussing patterns that students can see in the classroom. Ask students if they have seen patterns on clothing or artwork before. | 2 min | Classroom Discussion |
| 2. Introduce students to the Métis culture, including their use of patterns such as weaving, beadwork and traditional sashes. Ask students if they can find patterns in the images on the slides provided. <u>Métis Culture</u> | 5 min slides (discussion) 5 min (video) | Slides 1-6 |

| 2. Clarifying/Creating -Understanding/Concept-Development | | |
|---|--------|---|
| 1. In a group of 2 students, have one student create a pattern using any manipulatives available (eg-pattern tiles, links, crayons). Then have the other student try to guess the pattern rule (ABAB, AABB). | 10 min | Manipulatives for creating patterns |

| 3. Coached/Guided-Practice/Seatwork | | |
|---|-------|-------------------------|
| 1. Students can finish this lesson by completing the patterning worksheet provided. | 8 min | Patterned Worksheets |

| 4. Review/Assessment | |
|--|-------------------------|
| 1. Checklist: When the students are creating patterns in their small groups of 2, check students' understanding of their awareness of patterns. Can students create a basic pattern? Can their peers identify the pattern made? | |
| 2. Observations: While having a discussion with the class about patterns in the environment, do a quick check in to see students ability to talk about patterns in their environment. | |
| 3. Worksheet: Teachers can assess the patterning worksheet as another tool to confirm students' understanding. | Patterned Worksheets |

5. Differentiation with specific groups/students

Within the small group activity, students have a chance to create patterns ranging in complexity from basic to advanced.

Extra Time Considerations/Early/Late Finishers

Grade one's will likely not be able to finish the worksheet in the time provided. As an option, teachers can provide another period to complete the worksheet and continue to practice creating patterns.

Extra Notes

1. If teachers do not have patterning materials available, students can draw patterns on paper. Teachers can also take their students outside to look for patterns as an alternative. Students can document their patterns in their math journals.

2. Students can read "My Métis Sash" book for young readers as an extension activity. Teachers can find this resource here: <u>https://goodminds.com/products/strong-readers-metis-series-my-metis-sash</u>

| Topic: Exploring Patterning with Traditional Métis Sashes | Lesson: 2 | Grade: 1 |
|---|------------------|----------|
| Subjects: Math | Time: 30 minutes | |

Intents/Objectives/Purpose

Objective: Students will understand the significance of patterns in Métis culture.

Curricular Connection (new Alberta Math curriculum):

GUIDING QUESTION: What can patterns communicate?

LEARNING OUTCOME: Students examine patterns in cycles.

SKILLS & PROCEDURES Recognize cycles encountered in daily routines and nature.

| Activities | Time | Displays/ Resources |
|--|------------------|-------------------------|
| 1. Introduction/Set/Advanced Organizers | | |
| Begin by reviewing the patterns students found in the previous lesson. Ask students if they have seen patterns in their environment before, such as patterns that are within a cycle. Examples can include: how day turns to night and back to day again, how spring turns to summer and then to fall and winter & how we follow daily routines at school and home. | 1 min | Classroom Discussion |
| 2. Introduce students to how Métis people saw patterns in their lives based on the video seen in the previous lesson. *The Métis people relied on these types of patterns to know when would be a good time to hunt and prepare food for seasonal changes. Paying special attention to not overuse the land and the resources. | 2 min | |
| In the video for today's lesson, students learn that although the creation of the sash was a meaningful pattern it was also very | 4 min (video) | |

| purposeful in their lives. Listen to the following video (also in the slides): <u>Elder Elize Hartley talks about the Metis Sash</u> . Ask students for examples of how the sash was used by Métis people. (optional: watch a second video about the Métis sash if there is time or to continue the discussion. Second video is in the slides). <u>The Métis Sash</u> | 3 min Add 4 min for second video | Slides 7-13 |
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|---|---|-------------|

| 2. Clarifying/Creating -Understanding/Concept-Development | | |
|--|--------|---|
| 1.Have students grab manipulatives that match the colors of the sash (red, white, green, blue, black and yellow). At their desk or at the carpet, have them create as many patterns as they can using these 6 colors. Alternatively, students can cut construction paper squares to create their patterns. | 10 min | Manipulatives for creating patterns |

| 3. Coached/Guided-Practice/Seatwork | | |
|--|--------|--|
| 1. Have students choose 5 of their favorite patterns and add them to their math journals or on a piece of paper. Alternatively, students can share a few of their patterns with their peers, or the teacher can have a few students share with the class. | 10 min | Math journals, paper or discussion |

| 4. Review/Assessment | |
|--|--|
| Observations: While students are completing their journals, do a quick check in to see students ability to create a variety of patterns using 6 different colors. | |

5. Differentiation with specific groups/students

If this task is too challenging for students, have them use less colors and basic patterns such as ABAB.

For more challenging work, have students discuss why patterns are important to learn in math and how patterns can be found in the world around them, such as in Métis sashes. Have them document this either in their journals or have a discussion with a peer.

Extra Time Considerations/Early/Late Finishers

Early finishers: Have students add a drawing from nature to their color patterns such as pine cones, sticks or rocks.

Late finishers: Students can complete less patterns and document less in their journals.

Extra Notes: None

| Topic: Exploring Patterning with Traditional Métis Sashes | Lesson: 3 | Date: |
|---|---|----------|
| Subjects: Math | Time: 30 minutes (can take up to 2 periods to complete) | Grade: 1 |

Intents/Objectives/Purpose

Objective: Students will understand the significance of patterns in Métis culture.

Curricular Connection (new Alberta math curriculum):

GUIDING QUESTION: What can patterns communicate?

LEARNING OUTCOME: Students examine patterns in cycles.

SKILLS & PROCEDURES

1. Create different representations of the same repeating pattern or cycle, limited to a pattern core of up to four elements.

2. Investigate cycles found in nature that inform First Nations, Métis, or Inuit practices.

| Activities | Time | Displays/ Resources |
|--|-------------------|-------------------------|
| Introduction/Set/Advanced Organizers In this lesson, we are going to talk about the meaning behind each color on the sash. Ask students what they think the colors | 2 min | Classroom Discussion |
| mean. Eg-how does the color green make you feel? What do you think of when you see the color blue?2. Introduce students to how Métis people created meaning for | 4 min | |
| each color. Watch the following video on how a Métis sash is made. <u>Jenna McGuire on the Métis sash</u> | (video) | |
| Watch the second video up to 4 min, which describes the meaning of the colors of the sash. Alternatively, students can watch the entire video of Métis culture if time permits. Indigenous 101: Métis Culture. Go through the slides as a class | 4 min (video) | Slides 14-20 |
| | Slides (5 min) | |

| and see if the students can guess what each color means on slide 14, then go through slides 15-20 to see how close they were. | |
|---|--|
| | |

| 2. Clarifying/Creating -Understanding/Concept-Development | | |
|---|-------|---|
| 1.Have students look at the patterns that they created in their math journals or on a piece of paper from yesterday (or the ones they shared). Have students choose their favorite pattern. Students can share with the class, the teacher or a peer why they choose those colors for their pattern. (Students can write about this for English Language Arts as a subject integration). | 2 min | Patterns created from yesterday |
| As students pull out their journals or papers from yesterday and share with their peers, teachers can check in with students to confirm that they were able to create 5 patterns from the 6 colors. | | |
| If there is time, have students watch the video first before attempting the activity. This is a great time for students to play around with the yarn on their desks to get a feel for how to do this.Finger Weaving - Making a mini metis sash. | 7 min | White and red yarn, masking tape, sharpie marker, scissors |
| For the yarn, measure two white pieces from hand to hand with arms out to the sides & two red pieces from hand to hand with arms out to the sides. Take four pieces, fold in the middle and tie in a looped knot where the string is folded. Tape the top part of the knot to the table, write the names of the students on the tape. It is easier to all start with the same 2 colors to ensure that students understand the video better. | | |
| *Teachers may decide at this point to finish this lesson in another 30 minute period. | | |

| 3. Coached/Guided-Practice/Seatwork 1. Students will now work with an ABAB pattern to create a mini sash. Once they are able to create a basic patterned sash, they can explore different colors and learn how to create a sash with multiple colors. Follow the video, pausing when needed. | 7 min (video) Add an extra 10 min for pausing the video. | All yarn, tied in knots, are placed on the student desks. |
|---|--|--|
| | video. | |

| 4. Review/Assessment | |
|--|-------------------------------------|
| This lesson is a great opportunity for observations in student self- regulation and resiliency when completing a task that may cause frustration. Provided is a self-assessment on how students progressed through this activity. This is a great teachable moment to talk about how the Métis people built resiliency during hard times. | Self-assessment (see link below) |

5. Differentiation with specific groups/students

If this task is too challenging for students, have volunteers work with students one-on-one to ensure that they are able to start the pattern. Alternatively, teachers can pair students with someone who is more comfortable with this task.

If this activity is too easy, try the following videos below for more detail and more colors.

For your more advanced students, they can try to weave a sash using thread. This is more advanced and would be great to try as a group or pair grade one students with older students. Grade one students can get frustrated with this, so going slow and having them find the patterns is really helpful.

Learning the Métis art of finger weaving

Information and more challenging pattern (fun to watch how intricate patterns are made): <u>Deep Freeze Atelier - Finger Weaving and Métis Sash with Celina Loyer</u>

Extra Time Considerations/Early/Late Finishers

It would be beneficial for teachers to have an assistant or parent volunteers to help organize the yarn, tie it into knots and tape them onto desks. Alternatively, teachers can pre cut, tie knots ahead of time and place them with tape on the table for students to come and grab. Masking tape is great to use as the student's name can be written on the top and then used over multiple days. This activity will be challenging for little fingers and some may get frustrated. Go slow, pause the video and find those students who have followed a similar pattern before or who are willing to collaborate with their peers to ensure that all students receive the support they need. If students do not complete this activity within the period, have them tape the end on their desk or have them tape them all to a table to start again either at another period or if they finish other work early.

For early finishers, have them create another mini sash for a friend or family member.

Extra Notes: None

References

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