

Fractions Lesson Plan

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Strand:

Numbers and Operations

Grade Level:

Four

Objectives:

Students will be able to state the shape of the canvas after viewing the video.

Students will be able to relate fractions to a real-life situation.

Students will be able to relate fractions to the Four Directions of life/Medicine Wheel or "Circle of Courage" teachings.

Students will be able to understand and use the terms numerator and denominator.

Recommended Video clip:

Laying down the canvas

Materials:

video clip, construction paper (cut pieces in half), old circular lids, colored pencils

Have students bring old lids (circular) from yogurt containers, pickle containers, etcetera from home.

You can also collect these in the staff room by asking co-workers to bring their old lids from home.

You can create a collection bucket or box.

Activity:

Have students watch the clip titled "laying down the canvas." Pause the video clip when it shows the tipi canvas laying out on the grass. What does this look like to students? Shape? Analogies? Students should observe that it looks the shape of a semi-circle.

In the video you will observe that Glen says the following:

Glen: "One of the teachings is that the tipi is the eagle. They say the eagle has blessed us in his way, he covered us with his wings, and this represents that. He protects us, looks after us."

Activity:

Have students take out a writing utensil and coloured pencils. Give each student a small piece of construction paper. Using the old lids students have brought from home, have them create a complete circle. Now that they have done this, have students indicate a semi-circle, outlining it (not colouring it in) with a colored pencil. Students will have seen what a semi-circle looks like in the video. Explore with the students what fraction the semi-circle represents of the entire circle. (1/2)

Looking at the circle as a whole again, have students split it into quarters. Have students pull out a red, yellow, blue and green coloured pencil. They are going to represent each quarter with one of the four colours. What does a "quarter" mean?

Each student should now have separated their circle into four quadrants. Take this opportunity to talk about the Four Directions/Medicine Wheel/"Circle of Courage." Students may have learned about these things before. Create a KWL chart (What they KNOW, what they WANT TO KNOW and to be filled in later what they LEARNED). This could be a good chance to an invite an elder into your classroom to share traditional knowledge about the Four Directions of life and the meaning of the Medicine Wheel. There are also many book and Internet resources on these topics, so feel free to use those as well. Martin Brokenleg is one name to research.

Have students find a blank space on their paper to record the three fractions you explored today. Teach them the terminology of numerator and denominator. Students can create arrows from their fractions to indicate what part is the numerator and which is the denominator.

Assessment ideas:

exit notes, KWL charts

In this lesson idea, students are exploring the fractions: $1/1$, $1/2$, $1/4$, you can adapt this lesson to explore other fractions as well.

Extension Activities:

A fun way to learn about fractions is through cooking. Students can learn about traditional First Nations and Metis foods at the same time they are learning mathematical concepts!

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