

LESSON PLANS: SASKATCHEWAN

Grade 5: Number

Using Pattern Blocks to Teach Fractions



45 MINS

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Outcome: N5.5

- Demonstrate an understanding of fractions by using concrete and pictorial representations to:
 - create sets of equivalent fractions
 - compare fractions with like and unlike denominators.

Introduction to Lesson



10 MINS

Teacher Background:

- Play Dr. Marian Small's "Pattern Blocks" video to introduce pattern blocks and discussion around fractions. Log in to **Teacher Console > eBooks > Grade 5 > Marian Small's Pattern Blocks #1**. Click on the Pattern Blocks #1 Video. Pause during the questions asked in the video. Discuss various responses.
- Hand out pattern blocks to students, as a manipulative to begin thinking about how they could create a shape with that is one half yellow. Display **Pattern Blocks** in Concept Search for an added visual for students.
- In your Teacher Console, click on **Demonstrations > Concept Search > Search Pattern Blocks** in search bar. Have students begin to manipulate the blocks and create different fractional numbers.



ITEMS NEEDED

- ✓ Interactive whiteboard
- ✓ Mathletics teacher login
- ✓ Marian Small's printed student problems
- ✓ Pattern block manipulatives
- ✓ Laptops



ASSESSMENTS

- ✓ Observation of students working together to create fractions
- ✓ Participation in interactive



ACCOMMODATIONS/ MODIFICATIONS

- ✓ Can practice easier/harder activities
- ✓ Can use Rainforest Maths at a level below or above



EXTENSION OF LEARNING

- ✓ Search number lines and/or fractions in Concept Search. Show students how to use a number line to represent and compare fractional amounts.
- ✓ Students can have extra practice in Rainforest Maths, Grade 5, Fractions. Students can extend their learning of fractions, and practice questions for reinforcement.

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The Lesson

 30 MINS

Interactive Pattern Blocks—Marion Small's Activity

- Hand out printed Marion Small's Student Problem: Pattern Blocks. Log in to **Teacher Console > eBooks > Grade 5 > Marion Small's Pattern Blocks #1 > Student Problem > Print**. Have students work together to complete the question. Students can work in partners or small groups to determine various answers. Give students enough time to explore various possibilities and use a variety of different shapes, patterns, and numbers of blocks.
- Display Interactive problem on the interactive whiteboard. In your Teacher Console, click on **eBooks > Grade 5 > Marion Small's Pattern Blocks #1 > Interactive Problem**. Students can then come up to the interactive whiteboard and display their answers. Discuss with students how there are various answers to this problem. Fractions can be represented in a variety of ways.



Ask Students,

- What would happen if we could only use red and yellow blocks?
- How could we represent $\frac{1}{2}$ using the fewest blocks?
- What different colour combinations could you use?

NOTE: Try Extension of Learning task to introduce Fractions on a Number Line, if students are grasping this concept well.

Reinforcement: Equivalent Fraction Activities

- Assign curriculum activities for students to complete in the Student Console. Suggested activities include Shading Equivalent fractions, Equivalent fractions, Equivalent Fractions 1, Comparing Fractions 1, Comparing Fractions 2, Simplifying Fractions, and Equivalent Fractions on a Number line 2.
- Students can use Rainforest Maths, Grade 5, Fractions section for extra practice. It can also be displayed on the interactive whiteboard for students to reference while completing their assigned tasks.

Extra-time/cross-curriculum activity: Have students create fraction art. Have students represent a fractional amount and show an equivalent fraction. Students can represent their fractions using paper and glue, drawing pattern blocks, constructing two real-life objects, etc.

After the lesson

 5 MINS

- Play a game of Live Math as a whole class. Log in to your Teacher Console and click on **Demonstrations > Live Math > Level 6 > World > Go**. Level 6 has some fraction computation questions.
- Have students complete an "Exit Slip" card. They need to complete this before leaving class.
- **Ask students:** What did you learn about fractions? How do you best represent fractions? Share your learning.



For more information contact our friendly team...

Email: customerservice@3plearning.ca | Tel: +1 877 467 6851