

Lesson Title: Rocket Ship Extravaganza
Course: Math Grade 1
Designer: Brooke, Yuan, Noah, Mike, Taelynn, Safa'a

Learning Outcomes/Intentions

Formal Unit Outcome(s):

Grade 1-

SS1.3

Replicate composite 2-D shapes and 3-D objects.

[CN, PS, V]

(c) Predict and select the 2-D shapes used to produce a composite 2-D shape, and verify by deconstructing the composite shape.

Objectives:

Students will be able to explain how they use their problem solving skills to identify where the shapes belong, and fit to create a 2-D shape of a rocket.

Mathematical Process:

Problem Solving [PS]

- Students develop their own problem-solving strategies by being open to listening, discussing, and trying different strategies.
- Students need to determine a way to get from what is known to what is sought; knowing that there might be multiple solutions.
- Using prior learnings, creating an open environment, and exploring student's creativity, they will actively look for and engage in a variety of strategies for solving problems.
- Students feel empowered to explore alternatives and develop confidence, reasoning, and mathematical creativity.

Essential Question:

How can we create a rocket ship from the pattern blocks (replicate shapes)?

First Nations Content

N/A

Assessment Evidence

Formative Assessments (Assessment for Learning):

- Observe how groups work together in order to create a rocketship using shapes (how little/how many blocks do they use, how many different rocket ships did they make?)

- Ask the class questions about what they are doing to problem solve or how they can create a rocketship

Summative Assessments (Assessment of Learning):

- N/A

Materials

- Geometry Blocks
- Outline of a Rocketship

Learning Plan

Learning Experiences & Instruction:

Students will review what shapes the pattern blocks include (hexagon, triangle, square, diamond).

Students will be handed out the rocket ship outlines as well as the pattern blocks.

How many blocks will it take to fill in our rocketship?

What shapes are you using to fit the rocket ship? How many of each?

Students will test their construction of the rocket ship through trial and error testing different shapes.

Can you predict/estimate the least amount of blocks used? The most blocks?

How many variations of the rocketship can you make?

What strategies did you use?

How did you solve the problem?

5-E's

Explore -

Students will manipulate geometry blocks through trial and error, and working together.

Students can compare their rocket ships to other groups' rocket ships.

Explain-

Students will explain how they solved problems in a group discussion after.

How can students support their ideas?

Elaborate/Extend -

Can students use just one shape to create the rocketship? two?

Can students make the rocket ship with 23 pieces? 10?

What else besides blocks can we use to create a rocketship?

Evaluate - Give students feedback as they are exploring their ideas. Guide them if they are struggling to come up with ideas?

