

## Overview:

In this lesson, students will explore the different features and attributes of the Red ROK Block. Students will get hands-on experience as they analyze the block, practice connecting and disconnecting, and working as a team to solve a fun challenge.

[Click here](#) to explore the entire Kid Spark Curriculum Library.

## Unit Concepts & NGSS Alignment:

- Become familiar with how to use ROK Blocks to build models
- Compare/contrast number, shape, size, and color of basic blocks
- Identify and name 2 and 3 dimensional shapes that comprise the ROK Blocks
- Observe blocks closely, identifying details and functionality

**Scientific/Engineering Practice** - Asking questions and defining problems  
**Crosscutting Concept** - Scale, proportion, and quantity

## Activity Time:

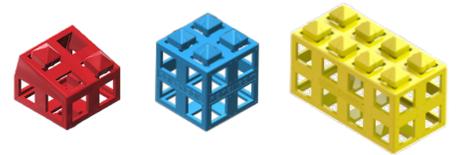
30 Minutes

## Kid Spark Mobile STEM Lab:

ROK Blocks

## Materials Per Student:

- 6 Red ROK Blocks
- 1 Blue ROK Block
- 1 Yellow ROK Block



## Lesson Introduction:

**Instructor:** "Today we are going to use a ROK Block that is very different from the blocks we have used so far: the Red ROK Block. The Red ROK Block can be used to make curves and arches."

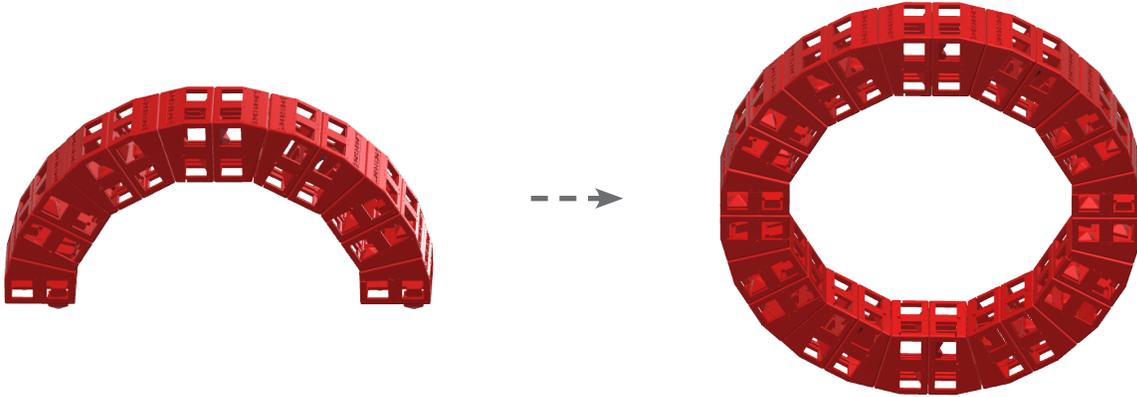
## Core Learning Activity:

1. Give each student (1) Red ROK Block and instruct them to look at it closely.
2. Instruct students to share what they notice/observe about the blocks with other students. Use the following prompt questions for student discussion:
  - a. How are the sides different from the other blocks? (**Two sides are angled. There are pyramids on two sides instead of just one side.**)
  - b. How many pyramids are there on the sides with pyramids? (**2**) How is this different from the other blocks? (**On the Blue/Yellow ROK Blocks, the sides with pyramids have only pyramids, and not openings.**)
  - c. Why do you think this block is shaped this way? (**Encourage students to really think about this question. The answer: to make curves/arches/circles**)
3. Give the students a second Red ROK Block. Ask them to explore the different ways that the two blocks can be put together.
4. Instruct students to connect the two blocks so that the letters (the logo) are next to each other on top. The bottom of the the two blocks should form a "V". Have students repeat this process with the other pairs of Red ROK Blocks.
 
5. Demonstrate how to put pairs of Red ROK Blocks together to form an arch.
 

**Note: The correct way to do this is to make sure all the letters/logos are visible on the top of the arch and there are no letters/logos on the bottom of the arch.**



6. Ask students to predict what they think the shape will look like if they keep adding to the arch. (**Circle**) After students predict a circle, have them pair up with another student and connect their chain of blocks to form a bigger chain. Then have each group (4 students) connect all their blocks together to form a circle.



### Lesson Challenge: Identify Real-World Circles

**Instructions:** Have students go on a scavenger hunt in their classroom (or playground, library, cafeteria) to find shapes that are similar to the circle made with the Red ROK Blocks. Have students report out to the class what they found.