Thank you for downloading the science and mathematics activity packet! Below you will find a list of contents with a brief description of each of the items. This activity packet contains all the information (including any handouts) you will need to run this activity in your own classroom or at a science festival.

Please note: some activities might require the need for a facilitator to be present to oversee the activity. Activities that require a facilitator will be clearly noted.

-Community Resources for Science

ACTIVITY PACKET CONTENTS

- 1. Organizer Instructions for the person running the activity
 - Print suggestion: 1 for the facilitator
 - Includes information for setup prior to the event (e.g., materials prep)
- 2. Participant Instructions (tabletop sign/printout)
 - Print suggestion: 1-2 to put in a plastic sign holder
- 3. Activity Printout(s) for participants
 - Print suggestion: number of expected participants, plus any extras for participants to take home
 - Printouts needed for participants to do the activity (e.g., cutout templates)

ORGANIZER INSTRUCTIONS

Grade(s): 1-5

Standard connections:

- CCSS.Math.Practice.MP1: Make sense of problems and persevere in solving them
- CCSS.Math.Practice.MP5: Use appropriate tools strategically
- CCSS.Math.Practice.MP2: Reason abstractly and quantitatively

Next Generation Science Standards: Science and Engineering Practices

- Constructing Explanations and Designing Solutions: Generate and/or compare multiple solutions to a problem
- Using Mathematics and Computational Thinking: Use counting and numbers to identify and describe patterns in the natural and designed world(s)

Objective: Use addition to precisely reach the "target" number

Activity overview and background: Student-directed, 2-4 player game. Students will use addition and critical thinking to reach, but avoid going over, a target number. An adult can model how to play, verbally demonstrating critical thinking skills.

Materials:

- Beans
- Game boards
- Paper and pencil (optional)

Setup:

- 1. Each group starts with a blank game board and a handful of beans
- 2. Paper and pencils may be used for calculations or drawing diagrams, if needed

Version 1 Directions:

- Choose a target number between 25 and 55.
- Take turn placing a bean on one of the numbers on the board. Announce the total of the covered numbers. (For example, one player covers a 2 and another covers a 5, the total covered so far is 7).
- Each square can be used only once. The first player to reach the target number exactly wins. A player who goes over the target is out.

Version 2 Directions:

- Choose a target number between 10 and 16.
- Put that many beans into the Bean Supply Box.
- Take turns, choosing a number and filling its bean spaces



- Each time, count on to say the total of the numbers covered so far.
- Object: To work together to reach a total that matches the target number.
- Rule: If you go over the target number, the game is ended.

Target Addition: Version 1

- 1. Choose a target number between 25 and 55
- 2. Take turns placing a bean on one of the numbers on the board
- 3. Announce the total of the covered numbers
 - For example, one player covers a 2 and another covers a
 5, the total covered so far is 7
- 4. Each square can be used only once
- 5. The first player to reach the target number exactly wins
 - But a player who goes over the target is out!



Target Addition: Version 1

5	5	5	5	5
4	4	4	4	4
3	3	3	3	3
2	2	2	2	2
1	1	1	1	1

Target Addition: Version 2

Game objective: To work together to reach a total that matches the target number

Rule: If you go over the target number, the game is over!

- 1. Choose a target number between 10 and 16
- 2. Put that many beans into the Bean Supply Box
- 3. Take turns, choosing a number and filling its bean spaces
- 4. Each time, count on to say the total of the numbers covered so far on the board



Target Addition: Version 2

3	3	3
2	2	2
1	1	1

Bean Supply Box				
Bean Supply Box				