## Illustrative Mathematics

## 1.OA Field Day Scarcity

Alignment 1: 1.OA.A. 1
Not yet tagged

## MATERIALS

- pictures of water bottle, snack, and ball (see black line master)
- tools such as snap cubes, number lines, or number grids
- paper, pencil, scissors, and glue for each students


## ACTIONS

The teacher should pose the following question to the students:
It's field day! The sun is shining and the students are having fun playing games with their friends. Your teacher gives you $\$ 7$ to spend at the school store. Here are the options of what you can buy.

| Water bottle | $\$ 2$ |
| :--- | :--- |
| Snack | $\$ 4$ |
| Ball | $\$ 5$ |

a. How much money would you need to buy one of everything on the list?
b. Do you have enough money to buy one of everything? How do you know? How much more money would you need to buy one of everything?
c. What can you buy using only $\$ 7$ ? Show your work.
d. What would you choose to buy? Why?

## Commentary

The purpose of this task is for students to relate addition and subtraction problems to money in a context that introduces the concept of scarcity. Scarcity occurs when you want or need more than you can have. Students may want to buy everything but will discover that it not possible with only $\$ 7$ and they will have to make decisions. To help first graders solve this problem is would be helpful to have multiple pictures of each object with the price on the picture (see attached black line master). This way, students can try all the combinations in order to discover their options using only $\$ 7$. Students can use cubes, number grids, and number lines along with the pictures to assist in solving this problem.

Some students may choose to combine their money or buy, for example, a ball to share. Then they may have money leftover to buy more. This strategy should be encouraged as long as the students are able to justify their reasoning.

This task is part of a set collaboratively developed with Money as You Learn, an initiative of the President's Advisory Council on Financial Capability. Integrating essential financial literacy concepts into the teaching of the Common Core State Standards can strengthen teaching of the Common Core and expose students to knowledge and skills they need to become financially capable young adults. A mapping of essential personal finance concepts and skills against the Common Core State Standards as well as additional tasks and texts will be available at http://www.moneyasyoulearn.org .

## Solution: 1

a. You would need $\$ 11$ to buy every item on the list. Here is a solution using cubes:


Here is a solution using a number line:


Here is a solution using a number grid:


In each case, we can see that $2+4+5=11$.
b. There is not enough money to buy one of everything, because $\$ 7$ is less than $\$ 11$.
c. It is possible to but any one item, or a water bottle and a snack, or a water bottle and a ball:

## What I can spend:


d. Answers will vary here--there is no one right answer. Students just need to explain why they made the choice they made.

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