

WORD PROBLEM ROBOTS



OPERATIONS & ALGEBRAIC THINKING

Name _____

Date _____

CCSS Standards

- Addition and subtraction within 20 to solve word problems & equations.
CCSS.MATH.CONTENT.1.OA.A.1 (1st Grade)
- Math strategies: counting one, making a friendly 10, decomposing.
CCSS.MATH.CONTENT.1.OA.C.6 (1st Grade)
- Add and subtract within 100 using place value based strategies.
CCSS.MATH.CONTENT.2.NBT.A.4 (2nd Grade)

Materials Needed

- Square sheet of paper
[Printer Paper to Origami Square Tutorial Video](#)
- Pencil
- Robot worksheet

I Can

I can use, create, and solve word problems by practicing my favorite math strategies.”

Objectives

Students will be able to use math strategies to solve word problems.

Introduction

Today we will fold our very own math robot to help us create and solve word problems! We will share our word problems with a friend and see how minds solve problems differently.

Directions:

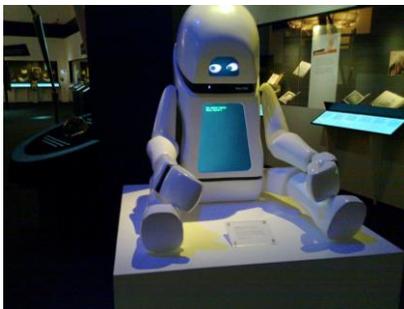
Teacher Direction

1 Show students a few pictures of different robots.

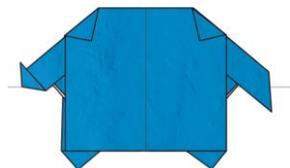
! Tell students:
“Let’s think about a robot. They to help us with different tasks.”

? Ask students:
“How do robots help people? If you were to create your own robot, what would it do? How would it help people? Have students record answers on Q1 of worksheets.

Hand each student a square piece of origami or printer paper.



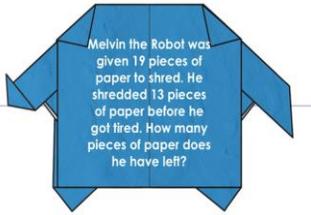
2 Depending on student level, show the students folding directions to do on their own or go step-by-step to help students create their origami robot.



Video [here](#)
PDF [here](#)



3



Once everyone has finished their robots tell students: “We will be writing our own word problems. Before we create our own, let’s practice by using my robot example.”

Show the teacher example and ask students to solve the problem.

Students will solve the word problem on their worksheets Q2.



Teacher Example

Options to use with Students:

Subtraction: Melvin the Robot was given 19 sheets of paper. He shredded 13 sheets of paper before he got tired. How many pieces does Melvin have left?

Addition: Melvin washed 8 plates and 6 bowls. How many dishes did Melvin wash in all?

4



Students begin creating their own word problems about their robot.

Tell students:



“It is time to create your own robot word problem with a partner using addition or subtraction. Remember to write *only* the problem, *not* the answer.”

Students will write their word problems on Q3 of their worksheets.

Pair students up and ask them to think about a word problem to write on their robots using addition or subtraction within 20 (1st grade), or within 100 (2nd-3rd grade).



Time to Solve!

On the worksheet, have students solve their word problem using their favorite strategy.

Students will solve problem on Q4 of their worksheets.



Time to Pass our Robots:

Have students pass their robot to another pair. Students will then solve the new robot problem on their worksheet with their partner.

Students will repeat this step 4 times (time permitting)

Have students write answers in Q5-Q7 on their worksheets to show their work.



Share time!

Choose a few pairs to share with the class how they solved their word problems.

Encourage students to ask each other questions.

8 Closure:

! Tell students:
“Today we practiced solving word problems using robots and our favorite math strategies.”

? Ask students to share with the class:
“Think about a word problem you or a friend solved. What strategy was the most helpful for you?”

Students will write their answers on Q9 of worksheet.