

# 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:

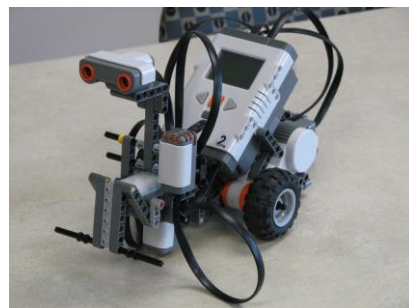
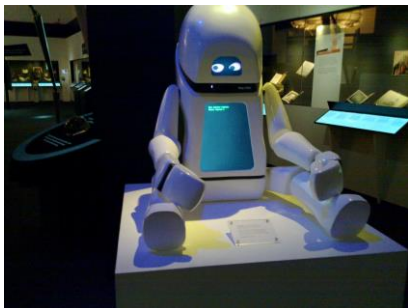
“Let’s think about a robot. They to help us with different tasks.”



Ask students:

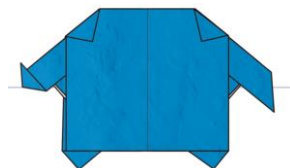
“How do robots help people? If you were to create your own robot, what would it do? How would it help people? Have students record answers on Q1 of worksheets.

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



2

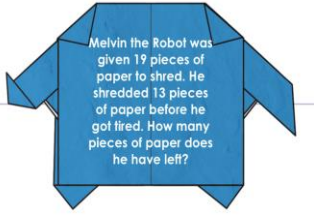
Depending on student level, show the students folding directions to do on their own or go step-by-step to help students create their origami robot.



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.**



**7**

### **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.**