

# Differentiated Learning

**Grade Level: First**

**Topic: 6**

**Domain Covered:**

Operations and Algebraic Thinking

**Clusters:**

Represent and solve problems involving addition and subtraction.

- Understand and apply properties of operations and the relationship between addition and subtraction.
- Add and subtract within 20.
- Work with addition and subtraction equations.

**Content Standards:**

- ✓ 1.OA.1: Use addition and subtraction within 20 to solve word problems involving situation of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects drawings, and equations with a symbols for the unknown number to represent the problem.
- ✓ 1.OA.4: Understand subtraction as an unknown-addend problem.
- ✓ 1.OA.6: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (eg.,  $8+6=8+2+4=10+4+14$ ); decomposing a number leading to a ten (eg.,  $13-4=13-3-1=10-1+9$ ); using the relationship between addition and subtraction (eg., knowing that  $8+4=12$ , one knows  $12-8+4$ ); and creating equivalent but easier or known sums (e.g., adding  $6+7$  by creating the known equivalent  $6+6+1=12+1=13$ ).

- ✓ 1.OA.8: Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations  $8 + ? = 11$ ,  $5 = \_\_\_ - 3$ ,  $6 + 6 = \_\_\_$ .

### **Learning Targets for this Unit**

- Children will make 10 to subtract.
- Children will make 1-0 to solve subtraction story problems.
- Find subtraction facts to 18 and learn the relationship between addition and subtraction.
- Use a part-part-whole model to find the subtraction facts and addition facts in a fact family.
- Use a related addition fact to find the missing part in a subtraction problem.
- Use related addition facts to solve subtraction problems.
- Draw pictures and write number sentences to solve addition and subtraction story problems.

### **Practice Standards: (Delete the practices that will NOT be used)**

- **Make sense of problems and persevere in solving them.**
- **Reason abstractly and quantitatively.**
- **Construct viable arguments and critique the reasoning of others.**
- **Model with mathematics.**
- **Use appropriate tools strategically.**
- **Attend to precision.**
- **Look for and make use of structure.**
- **Look for and express regularity in repeated reasoning**

# Differentiated Activities

**Directions:** Use your Teacher Manual for your assigned Topic to complete this page and create student materials

## Advanced/Gifted:

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### **Quick Synopsis of Activity & Materials Needed-**

Students will plan for the class snowman craft. They will need to figure out how many eyes, bodies, carrots, buttons, and smiles that each snowman will need, if each snowman has 2 eyes, 3 parts of their body, 1 carrot, 4 buttons, and 5 pom poms for the smile. The student will know how much of each material is provided for each snowman, but they will need to determine the class total of each object.

## Math Project

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### **Quick Synopsis of Activity & Materials Needed-**

Students will determine materials needed for our class craft.

1. Pull picture books with addition and subtraction facts. Here are a list of Stuart Murphy selections: Animals on Board, Too many Kangaroo Things to Do!, Elevator Magic, and Mall Mania. You can also choose from your own library.
2. Calculate total number of materials for each object.
3. Put materials in Ziploc baggies for individual students.

4. Student must provide explanation for determining the total for each object.
5. Collect and hand out materials to each student.

Materials: Addition and subtraction picture books. The teacher will have the pom poms, carrot shaped noses, circle buttons, and body parts cut out after the totals are figured.

## **Math and Literature:**

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### **Quick Synopsis of Activity & Materials Needed-**

Here are a list of Stuart Murphy selections: Animals on Board, Too many Kangaroo Things to Do!, Elevator Magic, and Mall Mania. You can also choose from your own library.

# Topic 6 Extension Activity: Snowman Class Project

Name: \_\_\_\_\_

Directions: You will need to prepare the materials for each student in our class to make a snowman. Below you will find the materials needed to construct one snowman. Please use your mathematical skills to determine the number of materials we will need for the entire class (23 students) to complete the project.

## Materials for one snowman

- ✓ Body Parts: 3
- ✓ Eyes: 2
- ✓ Nose: 1
- ✓ Buttons: 4
- ✓ Circles for Mouth: 5



Please complete the data chart below:

Materials	Number for one snowman	Number for 23 students
Body Parts		
Eyes		
Nose		
Buttons		
Mouth (number of circles)		

- On the day that our class is making this project, five students are absent. Our number of materials will now change. You need to figure out how many materials we now need.

Materials	Number of Materials
Body Parts	
Eyes	
Nose	
Buttons	
Mouth (number of circles)	

- Additional Activity: You are the teacher's aide today and need to organize the supplies for the project so that they are ready to make! Prepare a zip lock bag for each student in the classroom with all the materials they will need to complete their snowman!

