

**Grade 1 Advanced/ Gifted and Talented (GT) Mathematics**  
**“Oh, The Places You’ll Go:” A Unit in Operations and Algebraic Thinking**  
**Lesson Seed 2. Through Maryland We Will Go**

**Domain:** Operations and Algebraic Thinking

**Standards:** 2.OA.A.1 Represent and solve problems involving addition and subtraction

1.NBT.C.4 Add within 100, including a two-digit number with a one-digit number, and adding a two-digit number and a multiple of 10.

**Purpose/Big Idea:**

Students will apply strategies to make sense of problems involving unknowns in all positions, with and without multiple steps. By applying their understanding of models for addition and subtraction, they will develop, discuss, and use efficient, accurate, and generalizable methods to compute sums and differences of whole numbers in base ten operations. Students need practice with new and unusual problems in order to select and accurately apply methods that are appropriate for the context and the numbers involved to mentally calculate sums and differences for numbers with only tens or only hundreds. Students use their understanding of addition to develop fluency with addition and subtraction within 100.

**Materials:**

- Resource Sheet: *Story Structures*, precut
- Chart Paper and markers for each group of students
- Tubs filled with a variety of manipulatives, such as connecting cubes, number lines, hundred charts, base-ten blocks, and Digi-Blocks for students to use as needed
- Paper/pencils for student work

**Activity:**

- Place students into six groups.
- Distribute one of the pre-cut tasks from Resource Sheet: *Story Structures* to each group of students.
- Distribute a sheet of chart paper, markers, and tubs of various manipulatives to each group.
- Students are to work cooperatively to solve their task.
- The students may need assistance in reading some of the problems. Encourage the groups to find multiple ways of representing and solving the problems.
- As the students are working, ask them to clarify and justify their thinking.
- As a closure, come back together as a whole class to share the problems and the multiple ways of representing the problems.

**Check for Understanding:**

- Take anecdotal notes while students are discussing problem solutions and strategies
- Evaluate student accuracy and reasoning by assessing the charts.
- Students will demonstrate proficiency by using addition and subtraction strategies to solve word problems, explaining and justifying their solution and extending from something known to something not yet known.



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Connection to the PBL Task: Have students to create their own story problems that incorporate varying story structures (i.e. Start Unknown, Smaller Unknown, Bigger Unknown, etc.) that can be solved by their classmates.

**Guiding Questions:**

- What questions can be answered using addition and subtraction?
- How can counting strategies be used to join and separate sets?
- What do we notice about the situation?
- What questions do you have about the situation?
- How can we solve the problem?
- What is another way to represent the problem?
- How do you know your answer is correct?
- Does your answer make sense?



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## Story Structures

At Splash Mountain Water Park there were some children in line for the Rapids Ride. Six children got on the ride. Now there are 42 children waiting in line. How many were in line before?



Jason and Chris were collecting shark teeth at Calvert Cliffs. Chris found 10 fewer shark teeth than Jason. Jason found 28 shark teeth. How many shark teeth did Chris find?



The cub scouts were kayaking on Deep Creek Lake. The green kayak was 4 feet longer than the yellow kayak. The yellow kayak was 18 feet long. How long was the green kayak?



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The Baltimore Ravens scored 9 more points than the Dallas Cowboys. The Cowboys scored 21 points. How many points did the Ravens score?



There were some crabs in the basket. Tom caught 8 more and put them into the basket. The basket now has 54 crabs. How many crabs were in the basket before?



A group of students saw 24 fish in a tank at the National Aquarium in Baltimore. Some of the fish had stripes and some had spots. How many of each could there be?

