**Addition with Word Problems**

**Basics:**

**Name: Justine Van Koevering Time Allotted: 20 minutes**

**Grade Level: Kindergarten Subject(s): Mathematics**

**Intentional Room Set Up:** Students sitting in clusters for collaboration

**Materials Required:**

* 3 packs of fruit snacks
* It Adds Up! worksheet
* It Adds Up! rubric
* It Adds Up! record sheet
* M&M addition problems (slips of paper)
* M&M addition record sheet
* Word Problems PowerPoint
* M&M’s – enough for each student to have at least 10 M&M’s
* Whiteboard markers
* Projector and screen
* Behavior expectations – posted in the room

**Michigan Content Expectations:** S.S.Grade Level Content Expectations (GLCE), E.L.A. or Math Common Core State Standard (CCSS) or Next Generation Science Standard (NGSS) include both the code AND fully written out expectation.

**K.OA.2**

**Solve** **addition** and subtraction **word problems**, and **add** and subtract **within 10**, e.g., by **using objects** or **drawings** to represent the problem.

**Objective(s): A specific, measurable portion of a GLCE, CCSS, or NGSS (may more clearly state with Bloom’s taxonomy verb) including the level of proficiency. –** *(3C’s = Content/Performance, Condition and Criteria… i.e. The student will {Bloom’s taxonomy verb}…{level of Bloom’s taxonomy learning}… so that they demonstrate 4out of 5 or higher proficiency on the {end of lesson assessment rubric}.Do not go over 4 objective for a 20 minute lesson.*

* *Objective 1:* The student will solve addition word problems within 10 using objects and drawings to represent the problem, demonstrating proficiency by scoring a 2/3 based on the attached rubric for the *It Adds Up!* worksheet.

**Assessment&Data & Intervention:**

* Objective 1 Informal Formative Assessment: Walk Around

As the students sort their M&M’s for their addition problems, the teacher will make their way around the room, observing how the students are doing and intervening when necessary.

* Objective 1 Informal Formative Assessment: Student Work

The students will work on practice word problems together. The word problems will be on the PowerPoint and the students will take turns drawing the pictures and writing the answers. The teacher will be circling the room and supporting the students when they need it. This will allow the teacher to see how well the students understand addition in word problems before they do some independently.

* Objective 1 Formal Formative Assessment: M&M Addition

In M&M Addition, the students will add numbers by using M&M’s as counters. The students will be given a problem to solve and they will have to show their teacher that they did it correctly before they can eat their M&M’s. The teacher will record their results on the score sheet.

* + Data & Intervention Plan: The teacher will check with each student once they have completed their M&M addition. If they got it on the first try, the teacher will put a checkmark in the “Got it!” column by the students’ name. If the student’s addition is incorrect, the teacher will offer some assistance and check the students answer after they give it a second try. If it is correct, they’ll get a checkmark in the “2nd try” column. If incorrect, the teacher will offer support again. If they get it this time, they will get a checkmark in the “3rd try” column. If incorrect, the teacher will make a note to reinforce the subject with the student at a later time during a free period.
* Objective 1 Formal Interim/Summative Assessment: It Adds Up! Graded

The students will complete the It Adds Up! worksheet and turn it in. It will be scored based on the attached rubric. They will need to earn a 2/3 on the rubric in order to be proficient.

* + Data & Intervention Plan: As this will not be the last time students work on addition in this unit, their score will be recorded on a record sheet for this worksheet. For the students that don’t get it right away, I will do a mini lesson on addition or work with the students during a free portion of the student’s schedule in order to help them understand addition.

*Note: You will embed the names of your assessments into the sections below to communicate when during the instruction part of your lesson you will implement each assessment and the allotted time necessary. Depending on how quality and detailed your section above is, you should be able to minimally explain below to keep from repetition.*

**Instructional Procedure: What information do students (and or a guest teacher) need to accomplish the objective(s) as you intended?**

***(The following steps do NOT have to occur in number order 1-6, nor are they necessarily separate components. You may structure your lesson however you like to best meet your planning needs but make sure to somehow still identify that you have each component. For Direct Interactive Instruction, you may use the “To, With & By” Model –Direct Teaching with Integrated Modeling, Guided Practice and Independent Practice. For Inquiry, you may use the “5 E” model – Engage, Explore, Explain, Elaborate, and Evaluate.) Consider and plan how you will transition and other classroom management components that will affect your instruction. Learning is not linear-- as long as the necessary details are included (and labeled) you may reorder and do the following instructional procedure how you like.***

* **Anticipatory Set:** (Allotted Time: 3 minutes)
  1. I need you guys to help me! I packed my lunch this morning and I gave myself one pack of fruit snacks for morning snack and two packs of fruit snacks for my dessert after lunch. Can you help me figure out how many packs of fruit snacks I’ll be eating today?
     1. The students will count up the packs of fruit snacks and tell their teacher that he/she has three packs.
  2. You guys just added one pack of fruit snacks to two packs of fruit snacks and decided that I have three packs of fruit snacks. You practiced your addition skills that we learned earlier.
  3. This was an example of a real life situation, or a word problem, that involved addition. I had fruit snacks in my lunch, and you added them all together to find out how many packs of fruit snacks I brought with me today.
  4. We are going to look at some other examples of word problems to practice our addition.
  5. I want to remind you to be respectful to your classmates and your teacher throughout the lesson, we do not talk out of turn, and we wait quietly to be called on unless the teacher says we can shout out a response. Please remember that we have our behavior expectations posted in the room, and I expect you all to continue to show me how well you can perform them.
* **State Purpose and Objective of Lesson:** (Allotted Time: 2 minutes)
  1. Tell the students **what** you want them to learn (direct)

Today we are going to learn how to add with word problems. We are also going to use objects to help us add as well as pictures.

* 1. Tell them **why** it’s important to them (explicit)

It is important for us to learn this because you will be doing addition quite a bit in second grade. You will also use addition in your everyday life when you help me take attendance, or when you see how many cookies are left in the jar, or when you go grocery shopping with your mom. Addition is an important part of mathematics, so we are going to work on becoming experts.

* 1. How might this lesson connect to prior or upcoming lesson? How does it relate to a larger theme or concept?

Do you remember learning about the addition symbol, the plus sign? Well today we are going to put what we learned about the addition symbol into practice using word problems that have real life examples. You will use the knowledge about adding in first grade and throughout the rest of your life!

* **Instruction:**
  1. **Direct Instruction & Modeling:** (Allotted Time: 4 minutes)
     1. The teacher will introduce the story problems by first using M&M’s. They will do a few story problems together. These story problems will be really simple. For example: I have 3 M&M and then I got 2 more. The students would set aside 3 M&M’s and 2 M&M’s and then count how many they have in total.
        1. The story problems that they do together will be in the Word Problems PowerPoint slides. The teacher will read the story problems and walk the students through the first two and then they will do the last one on their own. Throughout this portion of the lesson, the teacher will be doing the Walk Around Assessment.
           1. The first M&M word problem they will do together is…

“I have 3 M&M’s, then I picked up 4 more. How many M&M’s do I have?”

The teacher will walk the students through counting out 3 M&M’s and then counting out 4 more. Then they will combine their two sets of M&M’s and count those up to get 7 M&M’s.

* + - * 1. The next M&M word problem is…

“I have 6 M&M’s, then I picked up 2 more. How many M&M’s do I have?”

The teacher will again walk the students through counting out 6 M&M’s and then counting out 2 more. The students will combine their two sets of M&M’s and add them up to get 8 M&M’s.

* + - * 1. The final M&M word problem is…

“I have 1 M&M, then I picked up 5 more M&M’s. How many M&M’s do I have?”

The teacher will walk the students through counting out one M&M and then counting out 5 more M&M’s. The students will combine their sets of M&M’s and count them up to get the total.

**Differentiation Consideration:**

Using M&M’s for addition will give the students a visual representation of their addition problem. They can see how one number added to another number, creates an even larger number.

* 1. **Guided Practice:** (Allotted Time: 5 minutes)
     1. After doing the M&M’s story problems, the students will get a slip of paper with an addition problem on it. The purpose of this addition problem is for the students to show their teacher that they can add using objects to help the represent the addition problem. They may talk to peers during this assessment. When they are finished and satisfied with their results, they will quietly raise a hand and wait for their teacher to come by and check their answers.
        1. This is the M&M Addition Assessment.
        2. The students’ success will be recorded on the M&M Addition Assessment record sheet.
     2. At this point, the students will work on word problems that are not about M&M’s. They will do some problems together on the whiteboard.
     3. The students will take turns drawing pictures on the whiteboard to go with the word problems that are in the PowerPoint slides.
     4. After one student has drawn a picture, another student will come up and write the addition sentence using numbers and a plus sign.
     5. A third student will come up to the board and solve the problem by counting the pictures that their classmate drew and writing the correct answer after the equals sign.
        1. The students will do this together for two problems while the teacher is there to support them if they get stuck.
           1. This is the Student Work Assessment
        2. The problems that the students will be doing are…
           1. Kelly has 2 pencils and Caitlin gave her 3 more. How many pencils does Kelly have?
           2. Carrie has 4 cats. Amy has 1 cat. How many cats do they have together?
     6. Once the students finish the story problems on the board together, then they are ready to complete some addition story problems on their own.

**Differentiation Consideration:**

Manipulating the M&M’s is beneficial for the tactile learners.

Collaborating on the word problems with classmates and drawing pictures will give students opportunities to learn from each other and it gives them an opportunity for hands on learning and discovering answers for themselves. It gives them a visual representation so that they can see the numbers they are dealing with and it makes it more practical.

* 1. **Independent Practice:** (Allotted Time: 5 minutes)

When the students can perform without major errors, discomfort or confusion, then they are ready to develop fluency by practicing without the availability of the teacher (independent centers)

* + 1. The students will complete the It Adds Up! worksheet in class. The format will be just like what they did with their classmates on the board.
       1. They will have three problems. For each problem they will draw a picture and write the addition sentence using a plus sign. They will write the correct answer after the equals sign.
       2. Students will write their name on this worksheet and turn it in for a formal, interim assessment grade which will be recorded.
          1. This is the It Adds Up! Graded Assessment.

**Differentiated Consideration:**

For the students that finish early, they can take out an iPad and play the Addition Matching Game at [www.education.com/game/addition-matching/](http://www.education.com/game/addition-matching/)

For the students that struggle to finish on time, the teacher will collect their worksheets when they have run out of time and give them an opportunity to complete the assignment during a break in their schedule.

**Closure:** (Allotted Time: 1 minute)

* 1. Let’s remember that our objective for today was to practice addition with story problems, using objects and pictures to help us add.
     1. How do you guys feel about that? (Thumbs up/Thumbs down)
  2. Can I have two friends tell me something that we did today that helped them solve their story problems?
     1. One student will likely say adding with M&M’s and another will likely say drawing pictures.
  3. Remember that we talked about adding numbers in previous lessons. Today we made our addition problems into word problems which makes our adding feel like something we would do in real life. We add numbers all the time throughout the day and sometimes we do not realize it.
  4. Thank you all for working together so well and for doing your best! You are all brilliant mathematicians!

**References:** Use APA references page formatting to correctly cite textbooks, other books, websites, images, etc. that you used in the lesson. [*http://owl.english.purdue.edu/owl/resource/560/01/*](http://owl.english.purdue.edu/owl/resource/560/01/) *. If you’d like to use a citation creation tool, you can use ‘Zotero’. Please do not use other tools that are not up to date with APA 6th Edition Manual.* Start with double spacing, 12 pt. Font, 1 inch margins with hanging indents, etc.

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PowerPoint Slides



