Solar Lesson Plan Format

Age Level: 1st
Subject(s) Area: Math
Materials Needed:

- Access to internet for video
- Whiteboard (for each student)
- Whiteboard markers (for each student)
- Worksheet (Problem Solving 1.7)- Print off at bottom of page.
  http://www.eduplace.com/math/mw/practice/1/problems/1_7.pdf

Standards:

Code and description:

1.0A.1 Use strategies to add and subtract within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.

Objectives:

Students will be able to perform word problems using adding and subtracting of numbers within 20. 75% accuracy.

Learning Activities:

Opening Element:

- Students will be asked to find their carpet spots.
- Teacher will give students an example of a word problem by using students from the class to solve it.
  > **Word Problem:** "Miss Garman is going on a field trip to the zoo. There are 13 students who are attending and 4 more who would like to come. How many students in all will be attending? "
- Teacher will explain to the student that they were just a part of a word problem.
  - o Have student turn to their elbow partner to discuss what they think a word problem is.
  - o Have some students share.
- Students will then be told what a word problem is.
  - o **word problem**- is a situation explained in words that can be solved using math.
- As a class we will discuss word problems.
  - o What are some real world situations where you would use a word problem?
- The class will create a word problem together on the board using a real world situation.
  - o After the class has created their word problem the teacher will ask the students to give a fist to 5 of their understanding of what a word problem is.

Reflective Question:

What is a word problem?

Technology: Promethean board to show video.

https://learnzillion.com/lesson_plans/7412-understand-a-word-problem

Required Vocabulary: add, subtract, word problem

Instructional Methods:

- Students will transition back to their desks by rows.
- Students will be shown a video on word problems.
- Students will be dismissed by rows to get a whiteboard and marker.
- Once students are back in their seats and quiet they will watch the video.
  - Students will be asked to listen for the two parts of a word problem. When they hear it they are to give the teacher a secret thumbs up.
    - Information
    - Question
- As the video is playing the teacher will stop the video in certain part to use our own class problem to solve the problem and break it down like they are in the video.
- The problem will be worked through with the following steps while the teacher works through it on the board with students working with the teacher on their own whiteboards.

  - What is the question they are asking us?
    - How many students will be attending?
  - How many students are going?
    - 13
  - How many **more** students would like to go?
    - 4
  - What operation are we using to solve this problem?
    - Addition
      - Teacher will quickly remind student of what adding and subtracting mean.
        - Subtraction- difference, less than, went away
        - Adding- more, join, together
- Another problem will be worked through with the whole class.
  - Katie and her mom made 12 cupcakes. Her dad ate 6 of those cupcakes by the end of the day. How many cupcakes are left?
    - What question are we being asked?
      - How many cupcakes are **left**?
    - How many cupcakes did Katie and her mom start out with?
      - 12
    - How many cupcakes did Katie's dad eat?
      - 6
    - What operation are we using to solve this problem?

- Subtraction

Independent Concrete Practice/Application:

- Students will be given a quick problem solving math worksheet to practice their skills.
  - Students will be reminded to remember the question they are being asked.
  - Students will also be reminded to make sure which operation they are preforming. (adding or subtracting)

Wrap-Up:

- Students will be asked to turn and talk to their elbow partner about what a word problem is.
  - Some students will share.
- Students will then be asked to raise their hand if they can tell me what the two parts of a word problem are.
- Students will be given another word problem on the board.
  - "Ms. Garman is going on a field trip to the zoo. There are 13 students who are attending. She cannot remember how many students have yet to sign up. She does however know that all together there should be 17 students. How many more student need to sign up?"
  - Student will be asked if there is anything different about this word problem?
    - Our unknown is different this time.
- Remind students that this is why it is important to break apart the problem and not just add the numbers together. The problem will not always be asking you the same thing, like we saw in the last example problem.
- Students will be told that will learn how to do problems like this tomorrow.
  - We will learn to preform problems that have different unknowns.
- If there is time left over students will work on their math games.

Assessment:

Formative:

- Fist to five check of knowledge of word problems.

Summative:

- Problem Solving worksheet (1.7)

Reflection:

This lesson went really well to start. We had the concepts and the students were really grasping the problem solving techniques. However, when we got to the assessment the students were confused. I had a lot of students struggling. When evaluating what the students were struggling with I found that the layout of the assessment was confusing to them. I had to reevaluate the situation and I decided that I would use the assessment worksheet as more of a guided practice and then go to the front and work

through it with them. Once I did this, a lightbulb clicked and the students were able to continue with the problem solving. One thing that I will do next time is give more explicit direction with the worksheet. Also give examples during the lesson that match the worksheet.

Name _____ Date _____

Draw a Picture

There are 12 balls and 8 of them are blue.
All the other balls are red.
How many balls are red?

UNDERSTAND

What do I need to find out?

What do I know that can help me?

PLAN

Will I count the balls
or will I draw
a picture?

SOLVE

Color 8 balls blue.
How many are left?
How many balls
are red?

_____

LOOK BACK

Does my answer make sense?