

OPEN SENTENCES

Subject

Mathematics

Overview

This lesson plan covers teaching content for;

1. Open sentences

Prepared By

[Instructor Name]

Grade Level

2

Objectives

Students should be able to;

1. Find missing number in an open sentence.
2. Comprehend the equal sign in order to read and solve open number sentences in addition and subtraction.

Activity Starter/Instruction

1. Ask the students "who knows what this is?" (Show a balance scale or a picture of a teeter totter that is balanced or horizontal.)
2. Ask "If I put the principal on the right side and a little kindergartner on the left side, what is going to happen and why? (The side with principal is going to go down because he weighs more)
3. Ask what would happen if you kept putting more first graders on the left until it weighed the same as the principal. (It would be even)
4. Tell the student the equal sign (=) is the same thing as the middle of this balance except when you see the equal sign in a math sentence it means both side have the same weight or value.

Guided Practice

Lesson 1-15 Mins

1. Now write $6 + \underline{\quad} = 10$. Explain to the students that $6 + 4$ makes 10 and then there is 10 on both sides

Teacher Practice

Lesson 1-20 Mins

1. Write $(8 + 4 = 12)$ on the board and ask the students this statement is true or false. Ask "how do you know?" - (Because 8 and 4 more makes 12)
2. Write $(8 + 4 = 12 + 0)$ on the board and ask the students again. -(Yes because zero doesn't add anything)
3. Again, write $(8 + 4 = 0 + 12)$ and ask "okay if that statement is true, what about this one?" - (Yes, because you just changed the order of the number)
4. Try the same approach with another example e.g. $5 + 3 = 3 + 5$
5. Now ask the students, what does the equal sign mean again? - (Both sides have to be the same)
6. Here is another one: $8 + 4 = 9 + 3$. Guide the students that the addition of each side equal to (12). Therefore, they are the same
7. What about $12 = 5 + 7$? - (Yes)

Materials Required

- White board
- White board marker
- Counters

Additional Resources

- <https://www.mathsisfun.com/algebra/open-sentences.html>
- https://mathsolutions.com/ms_classroom_less_false-and-open-sentences
- <https://study.com/academy/lesson/open-sentence-definition-example.html>

Additional Notes

Assessment Activity

1. Give the student a worksheet for more practice to further understand the concept.

2. Here is another $6 + 6 = 7 + \underline{\quad}$

3. Ask the students to the sum of right side equation (12) and notify them what the equal sign (=) means. Then to have the same equation on the left, 7 should be deducted from 12 to find the missing value.

4. Explain the relationship between addition and subtraction in finding the missing value to an open sentence.

5. Try other examples with addition on one side and subtraction on the other side for extension.

Summary

Students often slip back into thinking the equal sign means "answer to". They will need lots of practice to overcome this misconception when reading math sentence.
