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| OPEN SENTENCES | 3.20.2019 |

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| Subject |  | Overview |
| |  | | --- | | Mathematics | | Prepared By | | [Instructor Name] | | Grade Level | | 4 | |  | This lesson plan covers teaching content for;   1. Open sentences |

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| Materials Required -Flash cards and chats |
| Additional Resources  * <https://www.mathsisfun.com/algebra/open-sentences.html> * <https://study.com/academy/lesson/open-sentence-in-math-definition-example.html> * <http://www.algebra-class.com/open-sentences.html> * <http://www.mathinterventions.org/files/uploads/Solving_Open_Sentences_with_Addition_and.pdf> |
| Additional Notes |

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| **Objectives** Students should be able to;   1. Find missing numbers in open sentences. 2. Use letters to represent boxes in open sentences. 3. Find the missing numbers that the letters represent. |  | **Activity Starter/Instruction**  1. Explain what a sentence is to the students. 2. Explain that a closed sentence is always true or always false. 3. Explain that a sentence is open when it is unknown if it is true or false. 4. Explain that a variable is an unknown   **Guided Practice**  **Day 2/ Lesson 2: 15 Mins**   1. Write on the board 5 +? = 13. 2. Ask the students if it’s true or false. 3. Explain that it is impossible to know if it’s true or false because of the presence of an unknown. 4. Ask the students what value you can use to represent the unknown to make the equation true.   **Guided Practice**  **Day 4/ Lesson 4: 15 Mins**   1. Revise previous lessons 2. Ask if the pupils have questions on what they’ve learned so far 3. Ask them questions. 4. Solve more examples. |  | **Teacher Guide** **Day 1/ Lesson 1: 15 Mins**   1. Write on the board 8 + 4 = 5 + 7 and 5 = 4 + 1 2. For each, have a student read it aloud. 3. Ask students to write examples of arithmetic equations that were true and some that were false. 4. Draw two columns on the board, one for true mathematical sentences, and a second for false mathematical sentences. 5. Check the equations they wrote and correct them where necessary.   **Guided Practice**  **Day 3/ Lesson 3: 15 Mins**   1. Explain that any letter can be used to represent an unknown. 2. Write 4y + 7 = 8, 3w + 4 = 9 and 5t – 6 = 8 on the board. 3. Explain that the sign changes when a digit is moved to the other side. 4. Solve the examples with the pupils. |
|  |  | Assessment Activity Assess the pupils on the following:   1. 2x + 6 = 7 2. 5y – 3 = 4 |  | Assessment Activity  Ask the pupils to differentiate between open and closed sentences. |
|  |  | Summary  1. Ask for volunteers to share their answers to the problems assigned. 2. As the problems are reviewed in front of the class, have the students check their answers for accuracy. |  |  |