## Lesson Plan

# Addition strategies - Number Lines by Counting on to 20

First (1) - Math

#### **LEARNING TARGET**

- Students will be able to use number lines to relate addition by counting on.
- Students will be able to solve addition problems involving numbers up to 20.

#### **LEARNING PROGRESSION**

#### PREREQUISITE SKILL EXTENSION SKILL

Addition - Add on Number Lines to 20 Subtraction - Subtract on Number lines

DURATION	MATERIALS	VOCABULARY
45-55 minutes	<ul> <li>Number lines (at least one per student)</li> <li>Whiteboard and markers</li> <li>Addition worksheet pack</li> </ul>	<ul><li>Add</li><li>Plus</li><li>Sum</li><li>Count</li><li>Number line</li><li>Counting on</li></ul>

#### INTRODUCTION

- 1. Begin the lesson by reminding students of the concept of addition and its symbol, the plus sign (+).
- 2. Explain to students that they will be learning how to use number lines to relate addition by counting on.
- 3. Display a number line and explain its purpose.

#### **INSTRUCTION**

- 1. Demonstrate how to use the number line to relate addition by counting on. For example, to solve 7 + 3, start at 7 on the number line and count forward three spaces to find the sum.
- 2. Provide additional examples and have students practice using number lines to solve addition problems.

#### **GUIDED PRACTICE**

- 1. Provide students with an addition worksheet containing problems that use numbers up to 20.
- 2. Work through the problems together as a class, demonstrating how to use number lines to relate addition by counting on.
- 3. Encourage students to write the addition sentences for each problem on their worksheet.

#### **INDEPENDENT PRACTICE**

- 1. Provide students with another addition worksheet to complete independently.
- 2. Encourage students to use number lines to help them solve the problems.
- 3. Circulate around the room to provide individual support and guidance as needed.

#### **HOMEWORK**

#### **EXIT TICKET**

- 1. To assess students' understanding of using number lines to relate addition by counting on, provide each student with an exit ticket that contains several addition sentences and blank number lines.
- 2. Instruct students to solve each addition sentence and draw a corresponding model on the number line provided.
- 3. Collect the exit tickets to quickly assess students' understanding of the concept and identify any areas that may require further instruction or support.

#### **SUMMATIVE**

- 1. To assess students' understanding of using number lines to relate addition by counting on, provide each student with an assessment sheet that contains several addition sentences and blank number lines.
- 2. Instruct students to solve each addition sentence and draw a corresponding model on the number line provided.
- 3. Collect the assessment sheets to evaluate students' understanding of the concept and identify any areas that may require further instruction or support.

#### **CLOSING**

- 1. Recap with the class what they learned in the lesson about using number lines to relate addition by counting on.
- 2. Encourage students to reflect on how they can apply this strategy in future math lessons and in everyday situations.
- 3. Provide positive reinforcement to the class for their hard work and progress throughout the lesson.

#### **TEACHING TIPS**

- Use manipulatives, such as magnetic numbers or tactile number lines, to accommodate students with fine motor or visual impairments.
- Emphasize the importance of counting on from the first addend to find the sum on the number line.
- Provide opportunities for students to explain their thinking and reasoning when using number lines to add.

#### **MISCONCEPTIONS**

- Students may believe that they can add any of the numbers together to find the sum, rather than counting on from the first addend.
- Students may struggle with counting on from the first addend when using a number line, especially when the second addend is a larger number.
- Students may confuse the order of the addends, leading to incorrect sums when using the commutative property.

#### **EXTENSION**

- 1. For students who have mastered relating addition by counting on, provide them with more challenging addition problems.
- 2. Students can create their own addition problems using number lines and exchange with a partner to solve.
- 3. Students can explore other uses for number lines in math, such as subtracting or skip counting.

#### INTERVENTION

1. For students who struggle with fine motor skills or have difficulty seeing the numbers on the number line, provide them with alternative manipulatives such as magnetic numbers or tactile number lines.

#### **COMMON CORE STANDARD**

1.OA.C.5 - Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

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