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Technology Integration Workshop 2022

Unit Title: Addition to 10

Grade Level: 1

Subject Area: Math

Duration/Length/Number of class periods: 5 lessons

Description:
Students will solve addition problems using manipulatives and technology tools to show part, part, total relationships.

Established Goals:
1.1.2.1 Minnesota State Standard: Use words, pictures, objects, length-based models (connecting cubes), numerals and number lines to model and solve addition and subtraction problems in part-part-total, adding to, taking away from and comparing situations.

What Enduring Understandings are desired?
Numbers have relationships.

What Essential Questions will be considered?
How can you solve single digit addition problems using concrete materials and drawings?
How can you solve word problems involving addition using concrete materials and drawings?
Which number relationships create 10?

Students will know / be able to:
I can add within 5 using fingers, pictures, and small objects.
I can add within 10 using fingers, pictures, and small objects.
I can solve simple addition word problems with 2 addends.
I can accurately count on to add within 10.
I can add to 10 using a number line and number chart.

Description *Units must include at least one of each formative, summative, introductory activity and learning activity. Check the appropriate box; one per row.*	Formative	Summative	Introductory Activity	Learning Activity	Student Technology Used	Teacher Technology Used	ISTE Standards
Lesson 1: Students will use manipulatives such as their fingers, and counting cubes to solve addition problems to 5.			**X**			**X**	
Lesson 2: Students will complete a Kahoot! on their tablets to show their understanding of single digit addition problems as well as show their ability to add single digit whole numbers with adding addition word problems up to 10. ISTE standard: Students will use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.	**X**				**X**	**X**	**X**
Lesson 3: Students will complete an activity on Seesaw to show their ability to solve word problems involving addition up to 10. Activity linked below.	**X**			**X**	**X**	**X**	
Lesson 4: Students will complete a Seesaw activity to manipulate activities to count on up to. Activity linked below.				**X**	**X**	**X**	
Lesson 5: Students will complete a unit assessment to show their understanding of single digit addition problems as well as addition word problems.		**X**					

Materials, tools and resources:
Linking cubes
Math manipulatives
Kahoot!
Seesaw
Tablets
Assessment materials

Tool Suggestions -
Number Frames

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Day-to-day lesson plan

Lesson 1:
Objective: Students will be able to use manipulatives to solve addition problems to 5.
Students will be able to read addition sentences within 5.

Materials: Manipulatives, smartboard

Whole group lesson:
*Teacher introduces math concept with Poster #1.
*Teacher reviews the parts of an addition equation and what the symbols mean.
*Practice solving simple equations to 5 using manipulatives and fingers. Ask for students to solve them by counting and record answers.
*Students solve addition equations to 5 using fingers.
*Students find the sum of different equations using counters.

Lesson 2:
Objective: Students will be able use manipulatives to solve addition problems to 10.
Students will be able to read addition sentences within 10.

ISTE standard: Students will use technology to seek feedback that informs and improves. their practice and to demonstrate their learning in a variety of ways.

Formative Assessment: adding within 10
https://create.kahoot.it/details/2ccf110b-d48c-4a20-a24d-e1e9fa476526
https://create.kahoot.it/details/8b021476-ea3c-4573-963b-ee9867939372

Materials: mini whiteboards, manipulatives, smartboard, tablets

Whole group lesson:
*Teacher reviews the parts of an addition equation and what the symbols mean.
*Practice solving simple equations to 10 using manipulatives and fingers.
*Students practice solving a list of equations to 10 using fingers.
*Students answer a list of equations on mini boards using their preferred addition strategy (pictures, fingers, or counters).

Lesson 3:
Objective: Students will be able use strategies to solve addition word problems to 10.

Materials: smartboard, tablets, manipulatives

Whole group lesson:
*Teacher asks students to stand up and act out simple addition story problems (i.e. 3 boys and 2 girls lined up at the door. How many kids lined up altogether?). Repeat with different problems to 10.
*Teacher reads simple story problems and asks students to draw pictures to solve and record an addition sentence. Repeat as needed.
*Students can use small objects or simplified pictures to solve.

Seesaw Activity:
https://app.seesaw.me/#/activities/library?search&query=word%2Bproblems&grade_level=1&promptId=prompt.99c82110-23bf-48c6-9920-f2560a917b32

Exit Ticket: https://create.kahoot.it/details/c15497e5-dacf-41f9-9a1f-32726c9d2a4e

Lesson 4:
Objective: Students will be able use manipulatives to count on to add correctly within 10.

Materials: smartboard, manipulatives, tablets, mini whiteboards

Whole Group Lesson:
*Teacher introduces counting on to add with Poster #4.

Teacher reviews counting on when given 2 numbers using fingers/circles.
*Write equations within 10 for students to say the bigger number aloud and draw circles for the smaller number to count on. Record the answers.
*Practice holding up fingers and using counters to count on to add. Show students bad examples that they have to fix. Seesaw Activity: https://app.seesaw.me/#/activities/library?my_library&promptId=prompt.58dfea2c-53fd-4aa2-b3b5-db2e1a1408d3

Lesson 5:
Objective: Students will be able to add to 10 using a number line or chart.

Summative Assessment: paper and pencil
https://docs.google.com/document/d/1-55vzEpqw4KOUpFkWmIQRHrW0u8IfK2LKwDP-e7V33k/edit

Materials: smartboard, individual number chart, dry erase markers, large number line

Whole group lesson:
*Teacher demonstrates how to add using a chart to 10 (mark/start at first addend and count on the next addend). Give equations for students to solve together and independently using a number chart.
*Repeat above lesson with a number line to 10 (mark first spot on line)
*Create a large number line to 10 on the floor for students to jump on to add and solve equations within 10.