THE TEN FRAME TOOL

Course Name: Math AIS
Unit/Theme: Using Math Tools

Time Frame (in minutes):
Grade Level: Grade 1

CONTENT AND SKILLS
Learning Objectives: ● Identify tools that help us understand numbers and operations, including technology at school and home. ● Use Ten Frames (physical and online) to build understanding of properties of operations and build addition and subtraction strategies. ● Collaborate to create a plan for using EM4 etools in the math room.
Essential Questions (optional): ● How can tools in general and ten frames in particular help us understand and practice addition and subtraction strategies? ● How do we use tools in the math room?
Students I can statements . . . ● I can use tools to help me add, subtract and practice math. ● I can use the ten frames to help me visualize numbers and to add and subtract. ● I can collaborate with others to create a plan to use EM4 digital 10 frames in the math room.
How will you meet the needs of SWD and ENL students? ● Define tool ● Each intervention is designed to meet the specific needs of each child I work with, including those with disabilities and English Language Learners
Content Standards List all standards and how learners will meet the standard
● Mathematical Practices: 5. Use appropriate tools strategically. 7. Look for and make use of structure, ● NY-1. OA 6. Add and subtract within 20 using strategies such as: making ten, decomposing a number leading to a ten and decomposing a number leading to a ten.
NYS Computer Science and Digital Fluency Standards List all standards and how learners will meet the standard
Impacts of Computing K-1. IC. 3 Identify computing technologies in the classroom, home and community Computational Thinking K-1.CT.10 Collaboratively create a plan that outlines the steps needed to complete a task.

NYS SEL BENCHMARKS -
https://www.p12.nysed.gov/sss/documents/SELBenchmarks2022.pdf

- 1B.1a. Identify likes, dislikes, and personal strengths.
- 3A.1b. Create, understand, and practice shared classroom expectations that support the wellbeing of self and others.

INSTRUCTIONAL PLAN
List the steps of the lesson, including instructions for the students.

Initiating Event; Ask "What is a tool?"

After children respond, use an online dictionary to define a tool. "Wow! We just used a tool, the dictionary on the iPad?"

Brainstorm: "What tools do we use to help us practice math?" Prompt as needed to include digital tools at school and at home. K-1. IC.3 Allow children to explore the room to find tools.

Create a list of technology tools we use in Council Rock to practice Math.

If they didn't already note the ten frames and counters, we used in previous lessons. Show the students how to access digital 10 frames on their iPads.

Explore/discuss how ten frames (both physical and digital ten frames and double ten frames) can help us understand numbers, addition and subtraction.

Practice some "making ten" and "decomposing a number leading to a ten" problems using the tens frames. Discuss:

    How does the tool help you understand and complete math problems?

    How does it help you understand the numbers and how they relate (go together)?

We are going to think interdependently to make a chart that shows how to use the etool Ten Frames.

Work together to create a "How to Use the EM4 Ten Frames Tools" chart. K-1. CT. 10

BACKGROUND OR PRIOR KNOWLEDGE

- In prior lessons children participated in quick images with ten frames to support perceptual subitizing, exploring how visualization can support number and operations concepts.
- Most first graders have used the EM4 digital games but might not know how to access the tools.

MATERIALS / RESOURCES
Add additional resources needed for this lesson such as instructional technology templates, images, videos, etc.

- iPads, various classroom materials, ten frames, counters, quick image cards
- Brainstorm technology we use at home and at school for math.
- Paper and materials for creating "How to Use Math eTools" chart