**Blended Learning Lesson Plan - Monday**

**Lesson Title:**

Adding Numbers (1-20) Using Tens Frame

**Objectives:**

Students will be able to represent and add numbers (0-20) using concrete materials such as ten-frames.

Students will be able to apply their understanding to real world problems.

**Background:**

In Kindergarten, students were expected to represent numbers to 10. To teach this lesson students will be expected to use ten frames to show numbers to 20 and extend their knowledge to higher numbers.

**State Standards and Common Core Curriculum Outcomes:**

[**1.OA.C.6**](https://www.education.com/common-core/CCSS.MATH.CONTENT.1.OA.C.6/) Develop an understanding of addition of numbers within 20. Students demonstrate fluency for addition within 10.

**Context:**

This lesson on representing and adding numbers is for a grade 1 math class. Ten frames are a highly effective way to teach the skills required to recognize and understand number patterns that are essential for operational fluency in math tasks including the ability to add and subtract mentally, to see relationships between numbers, and to see patterns.

Before this lesson, students are assessed what they know about 10-frames and whether they represent number on a 10-frame. Pre-assessment activity: the students are given a number less than 10 and asked to represent them in a concrete way using blocks or counters. They can represent the numbers by drawing as well.

**Assessment Of Learning or Assessment for Learning**

**Observations**

**•** Daily checklist- Can students represent a number and add numbers (0-20) on their white boards (dry erase board) using a ten frame?

**Conversations**

**•** Can a student explain how they add 2 numbers using a ten frame? For example, Can they tell the number represented in the 10-frame, discuss how may is there in top row of the 10-frame, how many are there in the whole frame, and about the number how many are missing to make 10.

**Product**

**•** Can students complete the worksheet - I can add numbers up to 20 using a ten frame

**Communication/Vocabulary**

1. Ten
2. Ten frames
3. Counter
4. Addition
5. Plus (+), Equals (=)
6. Increase, Count on
7. How many?
8. How many are missing? How many to make 10?

**Data:**

To gather data for future groupings the students will have an exit ticket to complete that will be graded and will tell me if we need to go over anything again. The students will also be assigned homework from this lesson so I will also get feedback from that assignment to tell me what the students grasped from the lesson.

**Materials:** List all materials used (i.e., websites, apps, pencils, iPads, computers, worksheets, diagrams, textbooks, etc.)

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| Introduction (5 mins) | Smartboard, Dry erase board, pencil |
| Teacher Directed  (15 mins) | Whiteboard, pencil, Ten frames for students, [Ten frame jar,](https://learningwithlittles.com/wp-content/uploads/2020/06/Ten-Flashing-Fireflies_000073.pdf)10 yellow counters (circles, skittles, counters, or M&M’s), book ([Ten Flashing Fireflies](https://www.youtube.com/watch?v=YXCHLDAhxmg&ab_channel=HelenaBarringer)), Tens Frame Anchor chart |
| Teacher-Directed Partner Activity | Ten frames for students, [Ten frame jar,](https://learningwithlittles.com/wp-content/uploads/2020/06/Ten-Flashing-Fireflies_000073.pdf)10 yellow counters |
| Independent Partner Activity (Collaborative)  (15 mins) | Pencil, Worksheet (empty paper divided into 10 sections) with the student name, Ten frames for students, [Ten frame jar,](https://learningwithlittles.com/wp-content/uploads/2020/06/Ten-Flashing-Fireflies_000073.pdf)10 yellow counters |
| Independent Digital / Exit Ticket (10 mins) | Chromebook, headphones, pencil, Video: [20-Frame Song (YouTube),](https://www.youtube.com/watch?v=rG-IJ0yzYis&ab_channel=Mr.R.%27sSongsforTeaching) Choice Board: [Tens Frame](Monday-Tens%20Frame%20Choiceboard.docx) (link of videos and games), headphones |
| Closure (5 mins) | Exit Ticket Activity Worksheet, Pencil, Tens-frame, counters |
| Homework | Video: [20-Frame Song (YouTube),](https://www.youtube.com/watch?v=rG-IJ0yzYis&ab_channel=Mr.R.%27sSongsforTeaching) Choice Board: [Tens Frame](Monday-Tens%20Frame%20Choiceboard.docx) (link of videos and games), printed worksheets (if children don’t have computers or iPad at home) |

**Procedures:**

**Introduction (5 minutes):**

On the smartboard, materials students will need for today’s lesson, pencil, their dry erase board is displayed. Once everyone is seated and has all their materials in front of them, the teacher will briefly explain what the lesson is about (By showing the book she will be reading and the activity they will be performing with her) and will explicitly share her/his expectations for the class. The teacher will then pass on the materials that the students will be using while she’s reading the story (a copy of the Ten Frame Jar printable per student – which will be done as a partner activity and 10 counters per student).

**Teacher-Directed Observe and Repeat Activity (15 minutes):** This activity also serves to activate prior knowledge.

The teacher will show the students the book ([Ten Flashing Fireflies](https://www.youtube.com/watch?v=YXCHLDAhxmg&ab_channel=HelenaBarringer)) on the Smartboard that she’ll be performing the activity on. She will also display the Ten frame jar and will ask the students if they recognize what the ten-frame is? She’ll pause to discuss the answers with them.

* One row is (has)
* The whole frame is (has)
* How many when the Ten frame is empty (the concept of zero - none)

Then the teacher pauses the video at the right places to demonstrate the activity and represent the numbers of fireflies in the story. She then asks them to visualize the yellow counters as the fireflies and asks the students to count aloud with her how many counters are there. Then as the story progresses, she models captures the fireflies from the sky one by one into the jar (by moving the yellow counter one-by one into the jar).

**Teacher-Directed Partner Activity**: After every step, she waits for the students to do the same. The teacher will instruct them to work in pairs to practice the step and she will pause until the students move the counters (mimic her step).

**Engage/Ask (after every step)**: Encourage the children to explain in their own words and use appropriate Math vocabulary to explain their thoughts.

* how many there are in the jar (e.g., after capturing the 1st firefly there will be 1 in the jar)? and
* how many more do we need to fill up the Ten frame jar (e.g., after capturing the 1st firefly we will need 9 more to fill up the jar)?
* How many did we capture from the sky (1, after the first step)?
* How many are left (e.g., there will be 9 remaining fireflies in the sky after capturing 1 firefly)?

**Extend:** For a challenge, you can have them write the addition facts for the number 10 based on the number in the jar and the number out of the jar (1 (in the jar) + \_\_\_ (how many more to fill up the jar) = 10).

The teacher reinforces the concept by showing them a Ten Frame Anchor chart to review the lesson before the students begin their partner activity.

**Collaborative Partner Activity - Independent (15 minutes):**

After the read aloud and the teacher-directed activity, the teacher will instruct the students to work in pairs to move the counters 1 by 1 into the jar and then write the equivalent number sentence in each of the 10 sections. The teacher has already demonstrated how to write the number sentence in the previous step.

**Differentiation:**

For children needing a little extra help, the teacher will be walking around the desks to provide additional support. Teacher will encourage the child to use the counters for extra help. Additional care and planning will be undertaken by the teacher to pair / partner children needing more help with a child who is more confident in their skills (– The teacher will get this information from the data that she has gathered). For children needing significantly more support the teacher will:

* Prepare task cards for working through the steps
* Provide worksheets that children will need to complete only the blanks with a picture of the tens frame printed below (For e.g., 1+ \_\_ = 10, 2 + \_\_\_ = 10, and so on until 10 + \_\_\_ = 10)

For students who finish quickly, the teacher may ask them to work on larger numbers (20-50) and they may also be asked to create number sentences to represent their number (using their ten frames) (For e.g., 42, 40+2 = 42 or 30+10+2= 42 or 20+20+ 2 = 42 or 10+10+20+2 = 42 10+10+10+10+2 = 42 and so on) This helps students partition and gives them a challenge while others finish up.

After finishing the worksheet, instruct them to discuss and explain to their partner their number sentence by taking turns (so if one student explains the 1st number sentence, the partner should explain the 2nd and so on) and to check their answers. The students will be able to take what they learn from this section to help them with their exit ticket activity.

**Independent Digital (10 minutes):**

The teacher will then instruct student that they will be using their iPads to play a math game [(Math Game)](https://www.nctm.org/Classroom-Resources/Illuminations/Interactives/Ten-Frame/)  together to reinforce the concepts that they have learnt during the lesson. This will serve as their exit ticket activity as well. The students will use their dry erase board and their fingers or counter to help them with this activity. They will be getting direct feedback on if they answer correctly and if it is incorrect, they will be asked to try again until they arrive at the correct answer. Since the students will be working together, they should be able to get through the first level and some of the second level. Students will be able to use this website at home to get extra practice.

A screenshot of a computer game

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**Closure (10 minutes):**

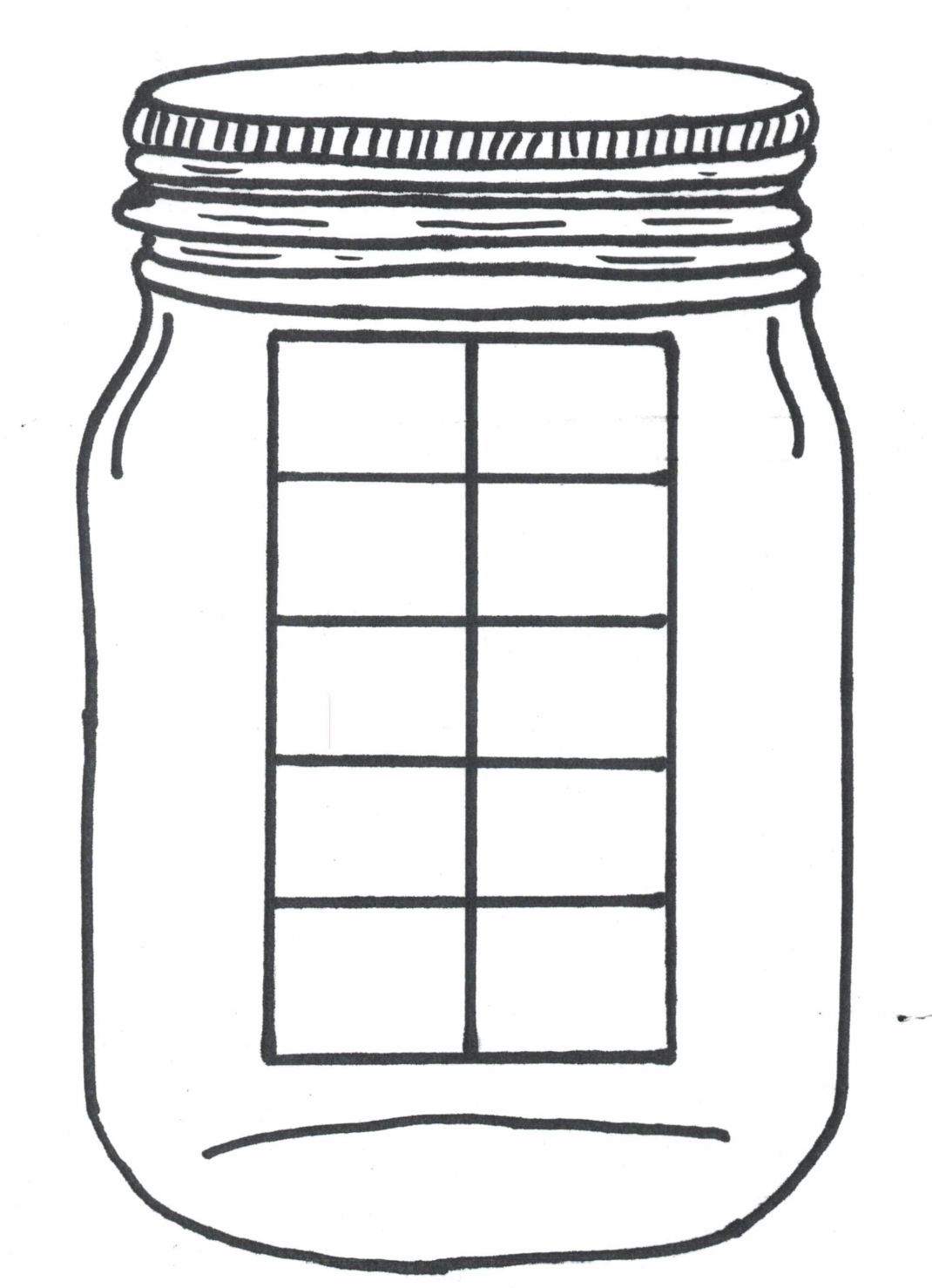
When the students are completing their exit ticket activity, the teacher will go through their worksheets to see the gaps in understanding and will make a note of it. Once everyone is back in their seats, the teacher will address the problems that many students are confused about. Regarding targeting individual students, she will do it during the next lesson, one-on-one. I will assign the students homework out of their textbook now and will write it on the board for students to write down once they are done.

**Homework:**

The teacher will offer options for the students to be able to practice the concepts learnt at home, through videos and games. It will give them an opportunity to get more practice in mastering these concepts. There are multiple practice problems in the [**choice board**](Monday-Tens%20Frame%20Choiceboard.docx), so that students can work on the problem independently. They will have a lot of games to choose from. This will give the students some downtime and freedom to choose what game they would like to play. This will not be the first time they have used this website for math games so they will easily be able to navigate the site.

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| **Watch:** A yellow rubber duck with purple and orange text  Description automatically generated**[20’s Frame Song](https://www.youtube.com/watch?v=RLiwP_hxdQc&ab_channel=Mr.R.%27sSongsforTeaching)** | **Game:**  [**Tens Frame Game**](https://www.education.com/game/ten-frame-11-20/)  A screenshot of a game  Description automatically generated | [**Snorkel Ten Frame**](https://primaryplayground.net/wp-content/uploads/2020/06/Snorkel-Ten-Frames-PDFS.pdf)  **(PDF)**  **A cartoon character in a mask  Description automatically generated** | **[Ten Flashing Fireflies with Activities](https://www.youtube.com/watch?v=x7ehesPzw50&ab_channel=BarbaraJohnston)** A book cover of a child  Description automatically generated |
| **Learn:**  [**Understanding Tens and Ones**](https://www.youtube.com/watch?v=Er1RrnMe_6I&list=PLcmqFoaeCEFATRrzK4qdgrugB45hhGGOv&index=17&ab_channel=MATH-N-ROLL)**:**  **A screenshot of a math game  Description automatically generated**  **A red blue and white cube with white letters  Description automatically generated** | [**Tens Frame Song**](https://www.youtube.com/watch?v=RLiwP_hxdQc&ab_channel=Mr.R.%27sSongsforTeaching)  **A poster with colorful frames  Description automatically generated**  [**A red play button with a white arrow  Description automatically generated**](https://www.youtube.com/watch?v=RLiwP_hxdQc&ab_channel=Mr.R.%27sSongsforTeaching) | | **Learn:** **[Make a 10 to Add](https://www.youtube.com/watch?v=Ceqo2Y3K3wA&list=PLcmqFoaeCEFATRrzK4qdgrugB45hhGGOv&index=4&ab_channel=MATH-N-ROLL)** **A screenshot of a video game  Description automatically generated**  **A red blue and white cube with white letters  Description automatically generated** |
| **NCTM****[Tens Frame Game](https://www.nctm.org/Classroom-Resources/Illuminations/Interactives/Ten-Frame/)** [**A screenshot of a game  Description automatically generated**](https://www.nctm.org/Classroom-Resources/Illuminations/Interactives/Ten-Frame/) | **Dreambox****[Tens Frame Game](https://play.dreambox.com/student/dbl/TeacherLessonQuickImagesTenframe4to10?atype=2&back=http%3A%2F%2Fwww.dreambox.com%2Fteachertools&eng=Primary&ie_skin=paperfrenzy)** **A screenshot of a video game  Description automatically generated** | [A blue background with white text  Description automatically generated](https://www.khanacademy.org/math/cc-2nd-grade-math/x3184e0ec:add-and-subtract-within-20/x3184e0ec:add-within-20/v/adding-within-20-using-ten-frames)  [**A screenshot of a video game  Description automatically generated**](https://www.khanacademy.org/math/cc-2nd-grade-math/x3184e0ec:add-and-subtract-within-20/x3184e0ec:add-within-20/v/adding-within-20-using-ten-frames) | **Monday**  **Ten Frames**  **Choice Board**  **Enjoy Learning!** |

**Worksheets**

 A close-up of a graph

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A blank jar activity chart

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A group of maths equations

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