

Lesson Printables

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Planners: 2-3

All Zones

Large Ten Frames: 4

Small Ten Frames: 5

Extension Puzzle: 6

Number Bond Snap: 7

**Printing in the US? Scale to 'fit to printable area' in order to get the best print.*

LESSON 1: Addition - Recapping number bonds to ten

Starter	Main Activity and Input: Identifying number bonds.	Plenary
<p>Number Build: What number can be made from the beaver's number blocks?</p> <p>To support:</p> <ol style="list-style-type: none">1. Provide place value blocks so students can physically count and regroup when needed.2. Work together to count how many of each place block there are. Write it in a table. <p>To challenge:</p> <ol style="list-style-type: none">1. What is another way students could write the block total? E.g. 302, $300 + 2$, three hundred and two, 3 hundreds, 2 ones, 2 hundreds, 9 tens and 12 ones.	<p>Input:</p> <ol style="list-style-type: none">1. Slide 6 shows a ten frame. What do students notice about it? Elicit that it has 10 boxes. Some students might also notice that there are 2 rows with 5 boxes in each row and 5 columns with 2 boxes in each column.2. Slide 7 shows dots on the ten frame. Ask students how they could work out how many dots there are without counting each dot. Share ideas as a class. Students might say they see 5 dots and 4 dots or you could count in 2s and then add 1 to get 9. Some students might be able to surmise that if there are 10 boxes in total and only 1 doesn't have a dot, there must be 9 dots in total. How do students know how many more dots they need to complete the ten frame? Get students to share different strategies and write their ideas on the board. This could include counting on from 9, subtracting the shown amount from 10, or exploring groups. E.g. If there is a line of 5 and a line of 4, we know that we need 1 more because 5 and 5 make 10.3. Slide 8 shows that you need to add 1 dot to the ten frame in order to make 10. We know this because $9 + 1$ makes 10. We have called 9 and 1 'number buddies' in order to help students think of the two numbers as friends because they 'go well together'. We have also included a part-whole model to show more abstractly that 1 and 9 make 10.4. This process repeats for slides 9 to 12. Each time ask students to identify how they know how many dots appear in the ten frame and then explain how they worked out what number is needed to complete the ten frame.5. Slide 13 models the main activity. Students will roll a dice or flip over a playing card to get a 1-digit number. Students could use ten frames, part-whole models, place value blocks, cubes, stick figures, etc. to show what number can be added to make 10. Slide 14 shows possible examples. Ask students what other number sentences they might know if they know $3 + 7 = 10$. Slide 15 shows possible examples such as $30 + 70 = 100$. <p>Activity: Making 10.</p> <ol style="list-style-type: none">1. Students could work in pairs or individually to roll dice or flip over cards to get a number and then identify its 'number buddy', therefore reinforcing ways to make 10. Twilight Zone extends students to making 20 and Midnight Zone extends students to making 100. <p>To support:</p> <ol style="list-style-type: none">1. Provide students with a ten frame and counters to help them physically make number bonds to 10.2. Encourage students to use their fingers to help them visualise the number bonds. <p>To challenge:</p> <ol style="list-style-type: none">1. Students could create 'If I know this...I also know that...' statements. As seen on slide 15.2. An extension puzzle can be found in the printables. It would need to be cut up and then given to students.3. Students could play Number Bond Snap. More details can be found in the printables.	<p>Go Big: What bigger number sentences do you know if you know your number bonds to 10, 20 or 100?</p> <p>Check for understanding:</p> <ol style="list-style-type: none">1. Can students write number sentences on the board using bigger numbers that connect to number buddy pairings? E.g. $2 + 8 = 10$, so $12 + 8 = 20$, $120 + 80 = 200$, etc.

Things that might be useful for this lesson:

- Individual whiteboards:
 - Help students to record their thinking and share ideas with others.
- Ten frames:
 - Help students to visually make number bonds to ten.
 - You could put counters on each ten frame square or students could colour in the boxes on the ten frame.



Peek at the Printables:

Ten Frame Templates

Large Ten Frames	Small Ten Frames

Extension

Extra Challenge
(This puzzle contains number bonds to 10, 20 and 100. It should be cut out before students start it.)

5	3	1	16
5	7	9	4

Number Bond Snap

- Deal out a deck of cards between players.
 - Get rid of 10s, Jacks, Queens and Kings.
 - Aces = 1.
- Players take turns flipping over a card and placing it in the middle.
- If any player gets a number bonds to 10, they can snap the pile.
 - This means they earn the whole pile of cards.
- The game is over when a player runs out of cards.

Level 2: Include number bond 'sandwiches'.
→ E.g. The cards 7, 5 and 3.
→ 7 and 3 sandwich 5, 7 and 3 are number bonds to 10, so you can snap the pile.

Level 3: Include number bonds to 20.
→ Make Jacks = 11, Queens = 12 and Kings = 13.
→ Now you can snap on cards that make 10 or 20.



Greener Alternatives:

- Students could draw their rainbows using chalk.
- Students could roll a dice or flip over a card and work out what number buddy would be added to their number in order to make 10/20. For students adding to 100, they could roll 2 dice or flip over 2 cards to make a 2-digit number.



Large Ten Frames

Small Ten Frames

Extra Challenge

(This puzzle contains number bonds to 10, 20 and 100. It should be cut out before students start it.)

 5 8 2	 3 15 5	 1 40 60	 16 60
 5 25 75	 7 0 10	 9 50 50	 4 50 50
 30 1 99	 1 3 17	 8 15 85	 20 80 85

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 - Get rid of 10s, Jacks, Queens and Kings.
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2. Players take turns flipping over a card and placing it in the middle.
3. If any player spots number bonds to 10, they can slap the pile.
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4. The game is over when a player runs out of cards.



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- Make Jacks = 11, Queens = 12 and Kings = 13. (10s = 10)
- Now you can snap on cards that make 10 or 20.

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