

Addition Facts

Intervention Mini-Lessons

Click to find the lesson for the factor strategy students are struggling with.

<u>1 or 2 More or Less</u>	<u>Doubles</u>	<u>Near Doubles</u>	<u>Make a 10</u>
<u>10 + ones</u>		<u>Make 10 + ones</u>	
<u>Printable Hundreds chart</u>			
<u>Addition Facts to 20 by Strategy</u>			
<u>Ten Frame</u>			

1 or 2 More or Less

Materials

- Hundreds chart
 - Markers
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Directions

This is a teacher led small group activity.

1. The goal of this activity is for students to build fluency with adding or subtracting one from a number to 20.
2. Give each student a hundreds chart, ask them to find the number 6 on the hundreds chart.
3. Once students have found the 6, ask what is one more (7) and one less (5).
4. Explain to students that adding 1 is the same as counting forward one number, and subtracting 1 is the same as counting backward one number.
5. Write equations such as $4 + 1$, $16 + 1$, $19 - 1$, and $3 - 1$ on a display. Ask students to use their hundreds chart to find their answer.
6. After students are proficient using the hundreds chart, ask them to turn their hundreds chart over and ask them new add one, subtract one questions such as $9 + 1$, $13 + 1$, $18 - 1$, and $7 - 1$.
7. If students struggle, encourage them to use their fingers to count forward or backward one.
8. Once students are proficient with one more or less, repeat the process with finding 2 more or less being sure to point out that we can count forward 2 or back 2 to find the sum or difference.

Doubles Facts

Materials

- Paper / dry erase board
 - Pencil / dry erase markers
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Directions

This is a teacher led small group activity.

The goal of this activity is for students to build fluency with adding or subtracting doubles.

1. Display the word “double” for students.
2. Ask students what they know about the word “double.” (Possible responses include: if I get a double scoop of ice cream, I get two scoops, when I get a double cheeseburger, it has two hamburgers or beef patties, and two pieces of cheese, when I play Double-Dutch we use two jump ropes.)
3. Ask students what was the same about their examples / what they know. (Possible Responses, there are 2 things, there are two groups that are the same.)
4. Explain to students that a double, is a second group that is exactly like the first group, so doubles, are two things that are the same.
5. Ask students what they think a doubles fact would be. (Ideal response: adding the same number twice.)
6. Ask students to help you list doubles facts to 20.
 - a. $1 + 1$
 - b. $2 + 2$
 - c. $3 + 3$
 - d. $4 + 4$
 - e. $5 + 5$
 - f. $6 + 6$
 - g. $7 + 7$
 - h. $8 + 8$
 - i. $9 + 9$
 - j. $10 + 10$
7. After you have listed the doubles facts, find the sum of each fact. Pay attention to which facts students can recall without needing a strategy and which facts students are struggling with.
8. Help students create flashcards of doubles facts.

9. Model for students showing a flash card, guessing, and putting the card in one pile if you know the answer automatically. Model saying the fact aloud and placing it in another pile if the answer is incorrect or not automatic.
10. Provide opportunities for students to practice with a partner while you are present to provide feedback.

Near Doubles Facts

Materials

- Paper / dry erase board
 - Pencil / dry erase markers
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Directions

This is a teacher led small group activity. Students should be fluent with their doubles facts before extending to near doubles facts.

1. The goal of this activity is for students to build on students' fluency with adding or subtracting doubles to include doubling and adding 1 or 2 more.
2. Quickly review doubles facts with students, record the doubles facts where students can see them.
 - a. $1 + 1$
 - b. $2 + 2$
 - c. $3 + 3$
 - d. $4 + 4$
 - e. $5 + 5$
 - f. $6 + 6$
 - g. $7 + 7$
 - h. $8 + 8$
 - i. $9 + 9$
 - j. $10 + 10$
11. Write $7 + 8$ where students can see it and see the doubles facts. Ask students to look at the list of doubles facts and decide if there is a doubles fact that is close to $7 + 8$. (Possible responses: $7 + 7$ is one less than $7 + 8$, $8 + 8$ is one more than $7 + 8$.)
12. Ask students how we can use $7 + 7$ to solve $7 + 8$. (Ideal response: $7 + 7$ is 14, since 8 is one more than 7, we need to add one more so $7 + 8 = 15$.) Record the thinking where students can see it.
13. Ask students how they can use the doubles fact $8 + 8$ to solve $7 + 8$. (Ideal response: $8 + 8 = 16$, but 7 is one less than 8 so I need to subtract one from 16. $7 + 8 = 15$). Record the thinking where students can see it.
14. Have students repeat this thinking with $9 + 8$, $11 + 9$, $3 + 4$, $6 + 5$. Have students explain how they used a doubles fact to solve.

Make a 10

Materials

- Paper / dry erase board
 - Ten frame
 - Counters
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Directions

This is a teacher led small group activity.

1. The goal of this activity is for students to build fluency with making a 10.
2. Show students an empty ten frame, **say: *What is this called? (a ten frame) How do you know it has 10? (it is two groups of 5)***
3. Explain that when we add and subtract, making a ten is an important strategy since our numbers are base 10, meaning they start over at each group of 10.
4. Place 6 counters in the ten frame. Ask students how many counters are needed to complete the ten frame (4) and how they know (there are 4 empty spaces in the frame.)
5. Explain that we can also use our fingers to make ten, if we start with some fingers up, the remaining fingers are the number needed to make 10.
6. Show students the equation $8 + ? = 10$. **Say: *What is the missing number? (2)***
7. Continue with other numbers to practice, if students are struggling encourage them to use their fingers to help them or a ten frame with counters. As they become more efficient, ask them to try to not use their fingers.
 - a. $1 + ?$
 - b. $2 + ?$
 - c. $3 + ?$
 - d. $4 + ?$
 - e. $5 + ?$
 - f. $6 + ?$
 - g. $7 + ?$
 - h. $8 + ?$
 - i. $9 + ?$
 - j. $10 + ?$
8. The goal is for students to recognize addends that make 10 without counting or using fingers.

10 plus ones

Materials

- Paper / dry erase board
 - Ten frame
 - Counters
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Directions

This is a teacher led small group activity.

1. The goal of this activity is for students to build fluency with a 10 + ones.
2. Show students an empty ten frame, *say: What is this called? (a ten frame) How do you know it has 10? (it is two groups of 5)*
3. Explain that when we add and subtract, a ten is an important strategy since our numbers are base 10, meaning they start over at each group of 10.
4. Place 10 counters in the ten frame, and 3 counters underneath. Ask students how many counters are shown (13).
5. Explain that two-digit numbers are grouped into 10s and some more ones, that we can just add the ones to the ten to find our total.
6. Ask students how many ones would we expect in $10 + 4$ (Ideal response: 4 ones.)
7. Ask how we would write 1 ten and 4 ones (14).
8. Since 1 ten and 4 ones is 14, then $10 + 4 = 14$.
9. Continue with other numbers to practice, if students are struggling encourage them to use the ten frame and counters to help them, as they become more efficient, ask them not use the ten frame.
 - a. $1 + 10$
 - b. $2 + 10$
 - c. $3 + 10$
 - d. $4 + 10$
 - e. $5 + 10$
 - f. $6 + 10$
 - g. $7 + 10$
 - h. $8 + 10$
 - i. $9 + 10$
 - j. $10 + 10$
10. The goal is for students to recognize how to add a ten and some ones automatically.

Make a 10 + ones

Materials

- Paper / dry erase board
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Directions

This is a teacher led small group activity. Students should be fluent with their make a ten facts and 10 plus ones before extending make a 10 plus ones.

1. Display and quickly review the make 10 facts with students.
 - a. $1 + ?$
 - b. $2 + ?$
 - c. $3 + ?$
 - d. $4 + ?$
 - e. $5 + ?$
 - f. $6 + ?$
 - g. $7 + ?$
 - h. $8 + ?$
 - i. $9 + ?$
 - j. $10 + ?$
2. Ask students to think about how we could use a make ten fact to solve $7 + 4 = ?$
(Possible response: I know $7 + 3 = 10$ and 4 is one more than 3 so $7 + 4 = 11$, or I know $6 + 4 = 10$ and 7 is one more than 6 so I need one more. $7 + 4 = 11$.)
3. Continue to practice with facts such as $5 + 7$, $2 + 9$, $6 + 5$, $4 + 9$.
4. After each fact, ask students to explain how they use make a 10 plus more to solve.
5. As students describe their thinking display the equations that represent their thinking. (For example: $5 + 7$ is the same as $5 + 5 + 2$.)

Printable Hundreds Chart

0	1	2	3	4	5	6	7	8	9
1	11	12	13	14	15	16	17	18	19
2	21	22	23	24	25	26	27	28	29
3	31	32	33	34	35	36	37	38	39
4	41	42	43	44	45	46	47	48	49
5	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97	98	99
100	101	102	103	104	105	106	107	108	109

Facts by Strategy

0	1	2	3	4	5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10	11
2	3	4	5	6	7	8	9	10	11	12
3	4	5	6	7	8	9	10	11	12	13
4	5	6	7	8	9	10	11	12	13	14
5	6	7	8	9	10	11	12	13	14	15
6	7	8	9	10	11	12	13	14	15	16
7	8	9	10	11	12	13	14	15	16	17
8	9	10	11	12	13	14	15	16	17	18
9	10	11	12	13	14	15	16	17	18	19
10	11	12	13	14	15	16	17	18	19	20

Strategy Key

<i>Add 1</i>	<i>Add 2</i>	<i>Doubles</i>	<i>Make a 10</i>
<i>Near Doubles + / - 1</i>	<i>Near Doubles + / - 2</i>	<i>10 + ones</i>	<i>Make 10 + ones</i>

Ten Frame
