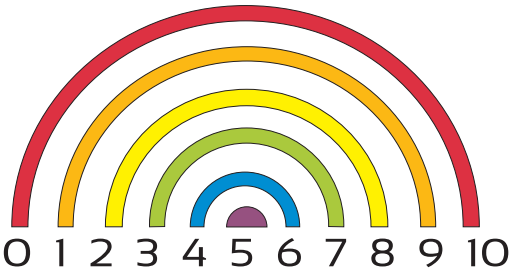
Week 5 Overview

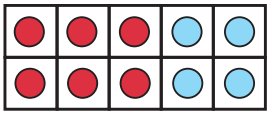
Rainbow facts



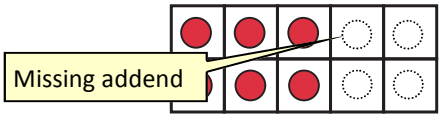
These are the pairs of numbers that together add to 10. The rainbow graphic is just a fun way to help with pairing the numbers to 10.

The rainbow facts are probably the most important set of addition facts that the student will need to know. As our number system is base ten, all numbers are made up of ones, tens, hundreds and so on.

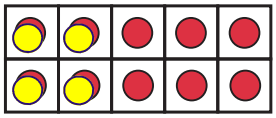
Initially allow the student to use a ten frame with 2 different shaded counters.



Later, just show one number to help the student "see" the missing counters (the missing addend).



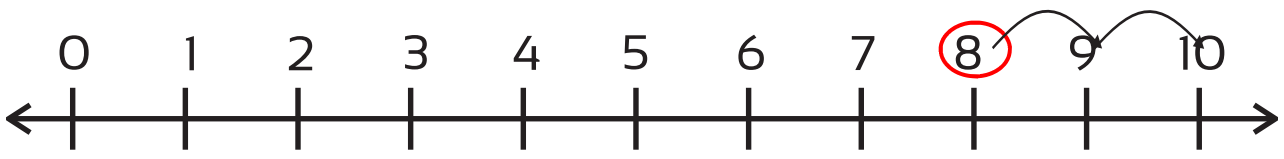
The "difference between" a number and 10, is a very useful tool in helping understand and learn take-away facts.



N.B. the difference between two numbers is a difficult concept. Many students are confused by the use of the word "and" and want to add the numbers. Help the student by focussing on what the question is asking, placing the counters on top of each other.

Number lines can be used to find the pairs to ten, but are less helpful as the missing number is not immediately apparent. Counting the hops that make up the pair is not as efficient a method as using ten frames. For this reason it is left until after the pairs to ten have already been established.

8 and ___ makes 10



Showing Rainbow facts with the Ten Frame Gadget

These are the pairs of numbers that together add to 10.

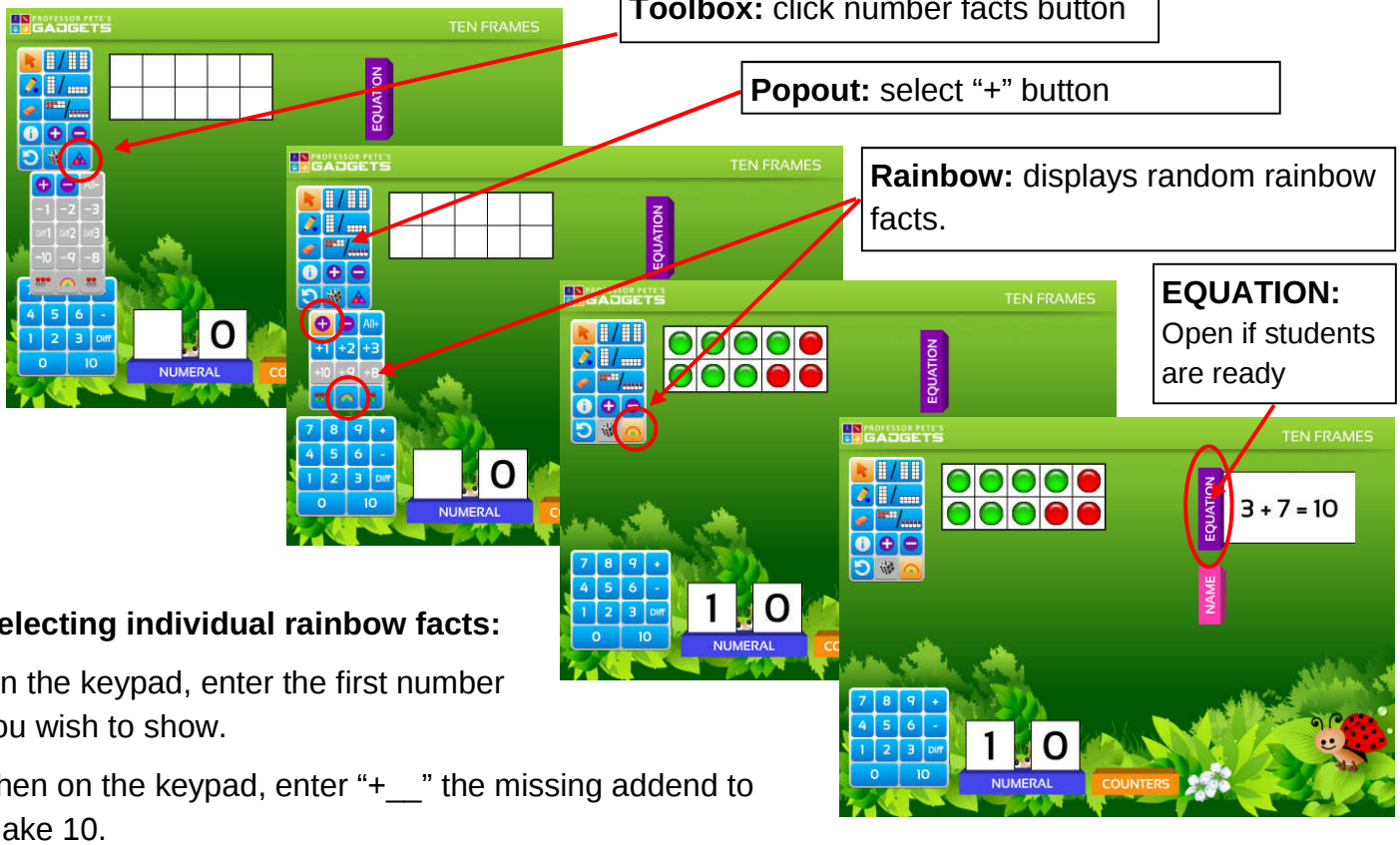
To access the rainbow facts generator, click on the Number Facts button.

Then choose the + option.

Then select the rainbow facts.

Once selected, the orange rainbow button can be clicked on to randomly select more rainbow facts.

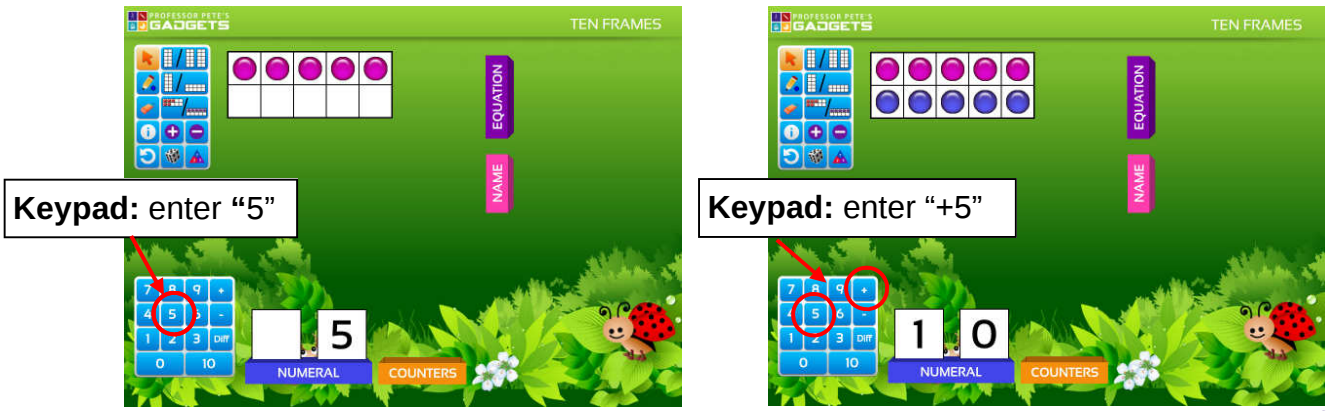
The EQUATION box can be opened to show the addition facts IF your students have already been introduced to the addition sign.



Selecting individual rainbow facts:

On the keypad, enter the first number you wish to show.

Then on the keypad, enter "+__" the missing addend to make 10.



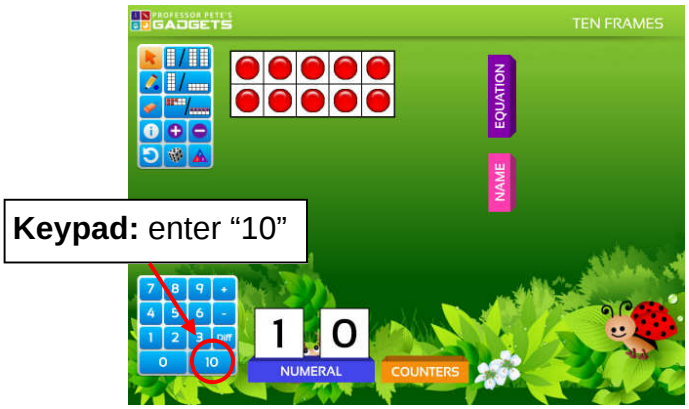
Rainbow Pairs to 10

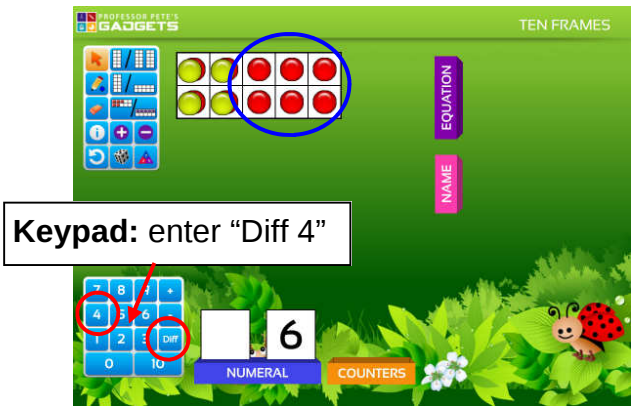
Using the Ten Frames Gadget to find the difference between 10 and ____ :

Enter the number 10 on the keypad.

Then enter “Diff __”

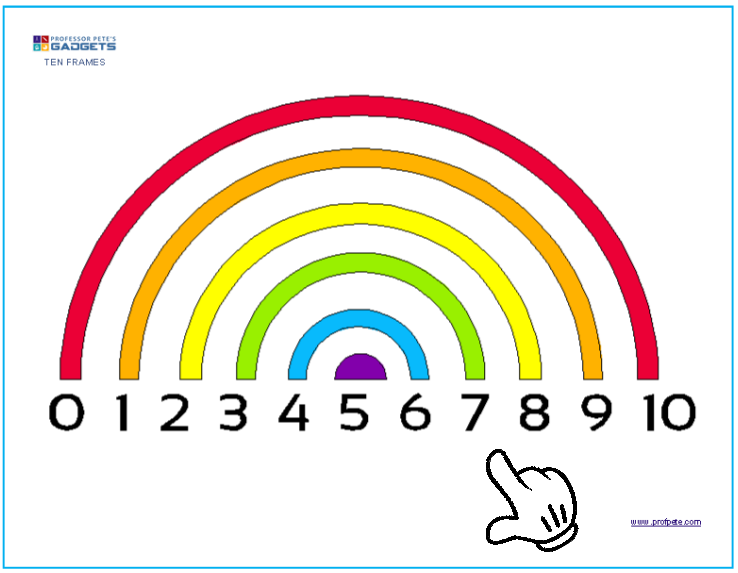
The difference is the remaining counters.





Poster option:

Print the poster of the rainbow and laminate for your wall. Enlarge it if you would like it to be bigger.



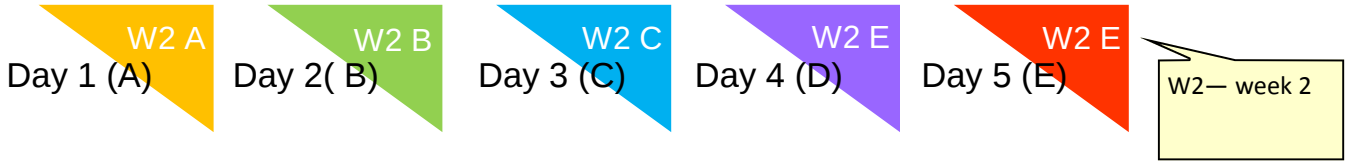
Alternatively print a copy for each students and paste into their books .

Students choose a number and trace their finger over the rainbow to find the pair to make 10.

Overview Week 5

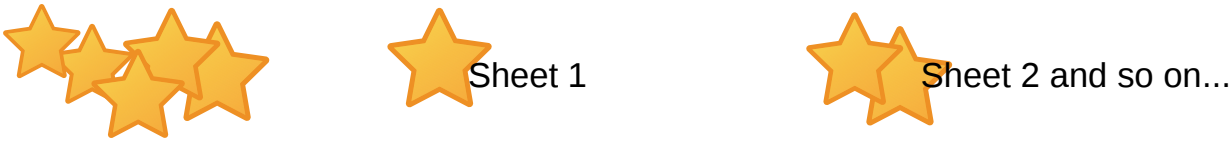
<u>Remember:</u> Use the worksheets AFTER you have used the Flash Cards as per the Teaching Strategies.

FOCUS worksheets: There are multiple daily **<u>focus</u>** worksheets that are recommended be completed; one set for each of the weekdays. W2 stands for Week 2.

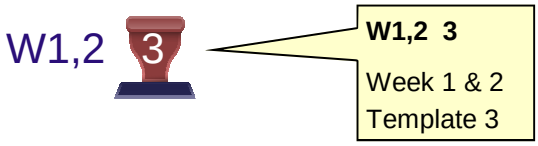


It is not necessary to use all of the worksheets so pick and choose the ones you feel your child needs the most.

STARRED worksheets: These indicate the estimated order in which to complete the sheets. They also allow you to keep track of which worksheets you are currently up to.



TEMPLATES: The **templates** are to be used if the concept on the focus worksheet needs reinforcing or revising. Use the templates if your child needs more practice to achieve at this level before progressing onwards, or for revision at a future date. You will need to fill in at least one of the boxes in each set so your child can fill in the other details.



It is recommended that only the focus worksheet/s and one other worksheet is completed each day. **<u>Do not</u>** do all the worksheets. That would be very stressful for your child; rather, choose the best worksheet to suit your child's needs. If it takes two or more days to succeed at the focus activity for the day, then use the extra worksheets on those days. It is better to achieve, than push ahead and have your child fall behind later. Remember success is an important reward!

Use unused worksheets at a later date to revise in the weeks ahead or used as extension worksheets for early finishers.

PROFESSOR PETE'S GADGETS

TEN FRAMES

Rainbow Pairs to 10

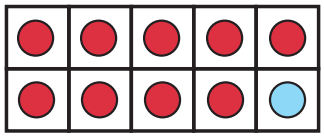
Template Instructions: Write in a number and have students write the missing number in the pair.

0 1 2 3 4 5 6 7 8 9 10

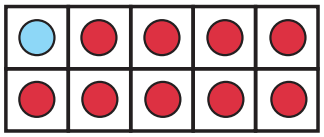
☐ and ☐		☐ and ☐	
☐ and ☐		☐ and ☐	
☐ and ☐		☐ and ☐	
☐ and ☐		☐ and ☐	

Rainbow Pairs to 10

Turnaround pairs



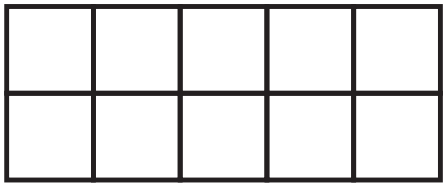
9 and 1



1 and 9

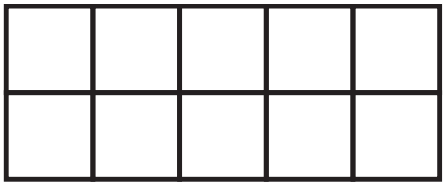
Template Instructions: Write in a number and have students draw and write the missing number in the pair. Then have the students write their turnaround pairs below.

Draw a number of red dots. Draw the remaining dots in another shade.



10

and



10

and

Write the turnaround pairs that make 10.

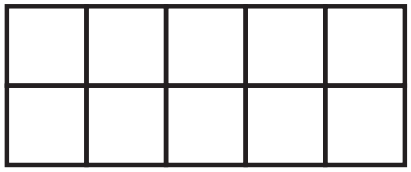
and

and

Rainbow Pairs to 10

Template Instructions: Write in a number and have students write the missing number in the pair.

Use your ten frame. Put counters on the ten frame for the first number, then picture the missing counters.



☐ and ☐

☐ and ☐

☐ and ☐

☐ and ☐

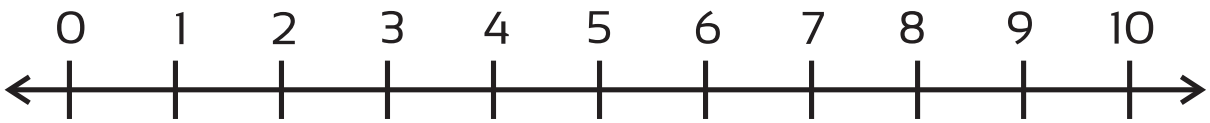
☐ and ☐

☐ and ☐

Rainbow Pairs to 10

Template Instructions: Write in a the 2 numbers and have students write the answer. Remember numbers lines are best used for finding the difference between numbers that are close together.

Use the number line to help you find the difference between these numbers.



The difference between ___ and ___ is	
The difference between ___ and ___ is	
The difference between ___ and ___ is	
The difference between ___ and ___ is	
The difference between ___ and ___ is	
The difference between ___ and ___ is	
The difference between ___ and ___ is	
The difference between ___ and ___ is	

Lesson 5A

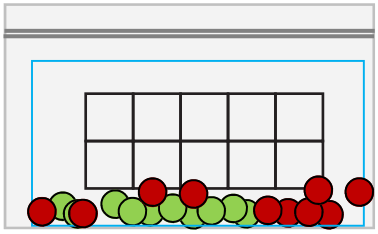
Rainbow facts / Pairs to 10 / Make a 10

Hand out ten frames and counters*.

Note: Before using the Ten Frames Gadget, make sure students do lots of hands on activities with their own ten frames. The concept of two numbers making 10 needs to be established in their minds before moving to the more abstract ten frames on the screen. Students need to see that the counters are actually placed together to create a 10, making a full ten frame. Using the Gadget, whilst showing students what is happening, is not a substitute for working with real concrete objects.

*Place Laminated ten frames and counters in bags. Ensure all students have their own set of counters and there are two sets of 10 counters with different shades e.g. green and red.

Store individually in zip lock bags or containers.



I**t is important to have students show numbers on their ten frame the two numbers that make 10.** Make sure they use a different shade of counters for the two addends, as this helps establish this pairs concept in their minds.

Once this concept is established then move on to using the **Ten Frames Gadget.**

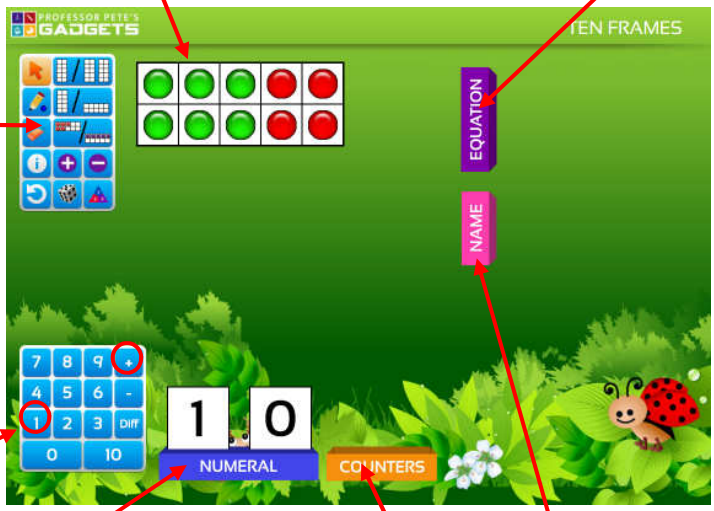
Set the Ten Frames gadget to these settings:

Ten Frame: single frame

EQUATION: hide it unless your students are already familiar with the "+" sign.

Tool Panel: Check default settings

- Single ten frame
- Horizontal or vertical layout
- Set arrangement



Key Pad: for entering numbers e.g. "4+6"

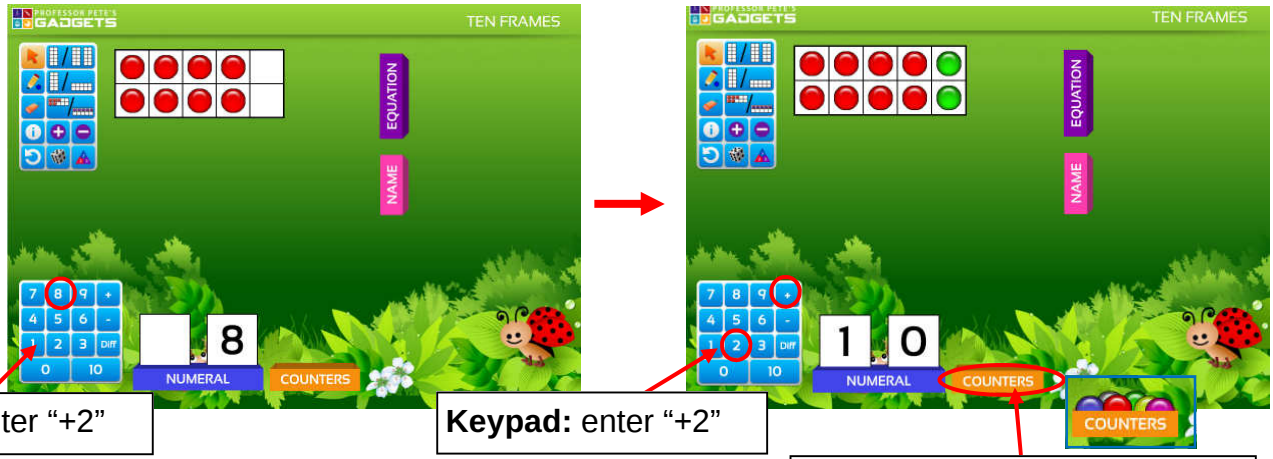
NAME: hide it (close it)

NUMERAL: hide or show the written form of the number

COUNTERS: hide or show the counters on the ten frames

Lesson 5A Cont'd

- Close all boxes except keep the counters on screen.
- Enter a number, greater than 5, such as 8 in the keypad. (Use zero only after the concept has been established. Do not start with it)
- Ask students to say how many counters are on screen.
- Ask students how many counters will it take to make the ten, a full ten frame?
- Enter "+2" on the keypad and check the answer.



Keypad: enter "+2"

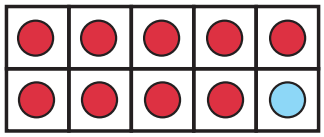
Keypad: enter "+2"

Hide counters: ask students to show on their ten frames first

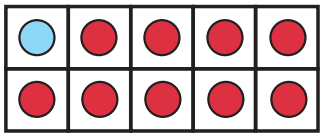
- Reset the screen.
- Repeat above steps with other numbers starting with the larger number first.
- Use the different layouts and arrangements. Some arrangements such as 5+ suits the rows arrangement, whereas the even numbers suits the pairs arrangement best.
- Ask students to show you using their ten frames so they can count and touch the concrete materials. Make sure they use the different shaded counter so that they can clearly see the original number and then the number completes the ten frame.
- **Hide the counters:** Ask the students to show 4 on their ten frames. Ask them to find the missing pair. Once they have completed this, check their answer by showing it on screen.
- **Worksheet activities:** Complete only some of them. Remember you do not need to do all the activities but choose the best ones most suitable for your students. Alternatively you could use the extra worksheets for early finishers.

Rainbow Pairs to 10

Turnaround pairs

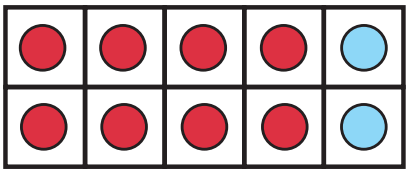


9 and 1



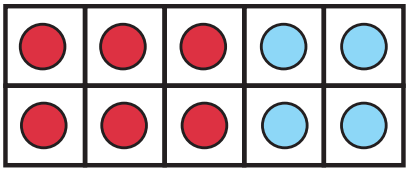
1 and 9

Here is 10. Write the numbers that together make the 10.



10

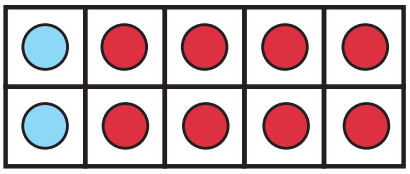
and



10

and

Here they are again. Flip them around and write the turnaround pair that make 10.



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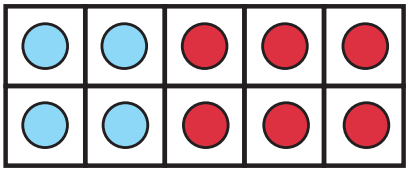
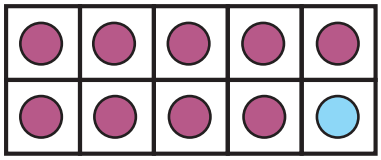


and

Rainbow Pairs to 10

Write the numbers that together make the 10.



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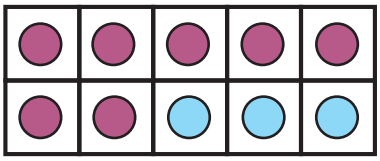
and



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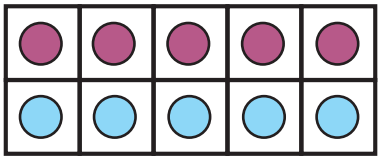
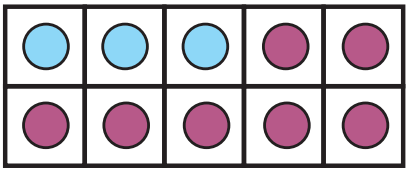


and

Flip them around and write the turnaround pair that make 10.



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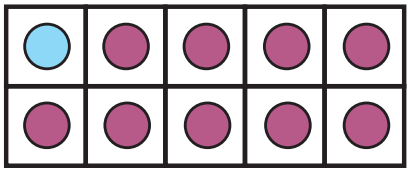
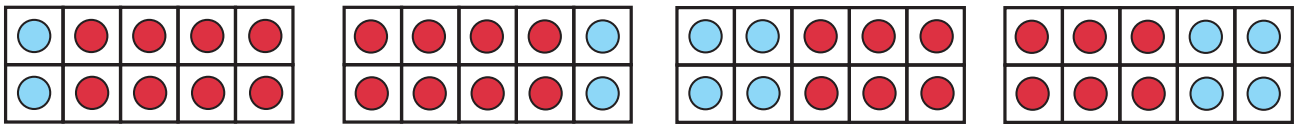


and

Revise



Write the pairs and their turnarounds.

and

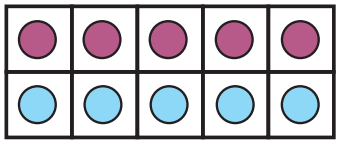
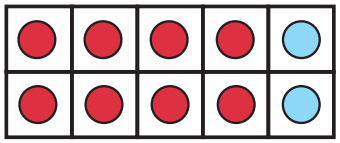
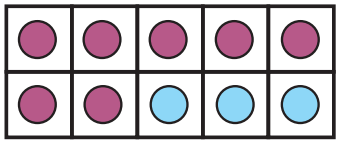
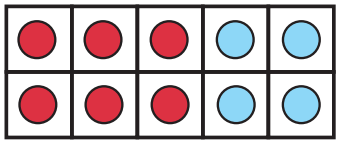
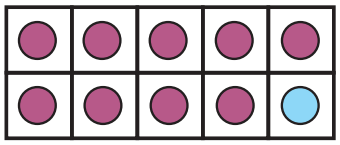
and

and

and

Rainbow Pairs to 10

Write the pairs to 10 and for these ten frames.

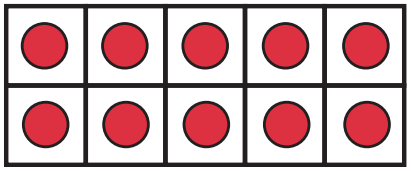
	☐ and ☐
	☐ and ☐
	☐ and ☐
	☐ and ☐
	☐ and ☐

Write the turnaround pairs for the above ten frames.

☐ and ☐	☐ and ☐
☐ and ☐	☐ and ☐
☐ and ☐	

Rainbow Pairs to 10

Can you see the pair to 10 here?

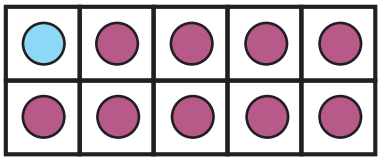


It is tricky as you can't see zero!

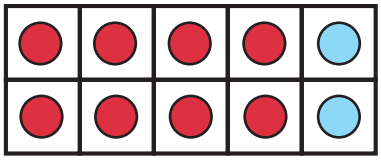
Turn it around and write the pair.

10 and ☐

☐ and ☐

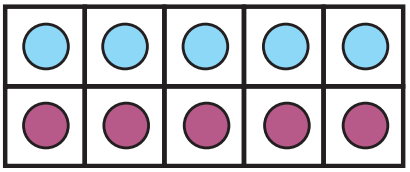


☐ and ☐

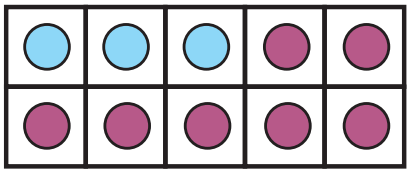


☐ and ☐

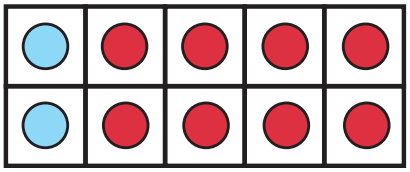
Write the pairs that make 10.



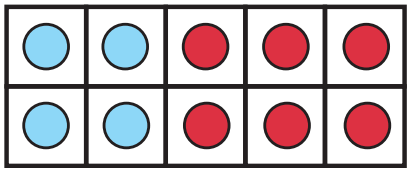
☐ and ☐



☐ and ☐



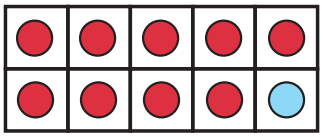
☐ and ☐



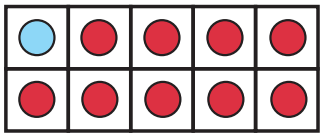
☐ and ☐

Rainbow Pairs to 10

Turnaround pairs

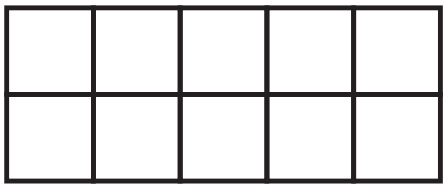


9 and 1



1 and 9

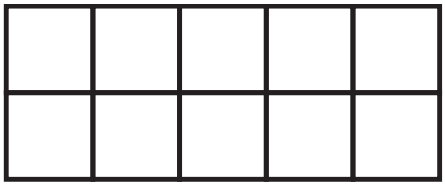
Draw 8 red dots. Draw the remaining dots in another shade.



10

and

Draw 6 red dots. Draw the remaining dots in another shade.



10

and

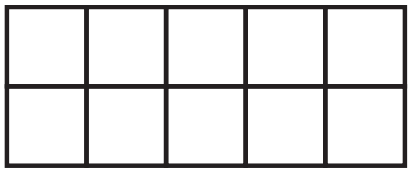
Write the turnaround pairs that make 10.

and

and

Rainbow Pairs to 10

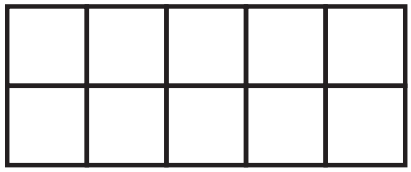
Draw 2 red dots. Draw the remaining dots in another shade.



10

and

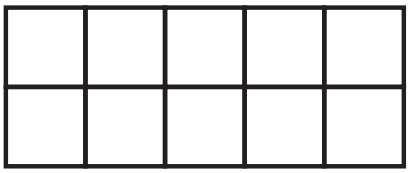
Draw 4 red dots. Draw the remaining dots in another shade.



10

and

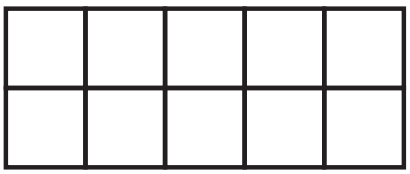
Flip them around and write the pair that make 10.



and

and

Draw and write the pair that doesn't change if the ten frame is flipped.

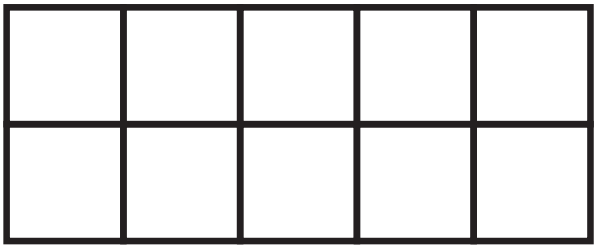


10

and

Rainbow Pairs to 10

Use your ten frames and counters to make the pairs to 10. Use 2 different shades.



☐ and ☐	☐ and ☐
☐ and ☐	☐ and ☐
☐ and ☐	☐ and ☐

Write the turnaround pairs to 10.

☐ and ☐	☐ and ☐
☐ and ☐	☐ and ☐
☐ and ☐	

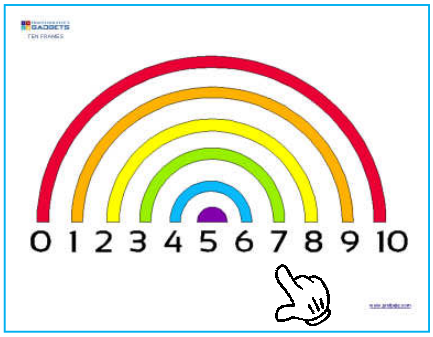
Lesson 5C

Rainbow chart

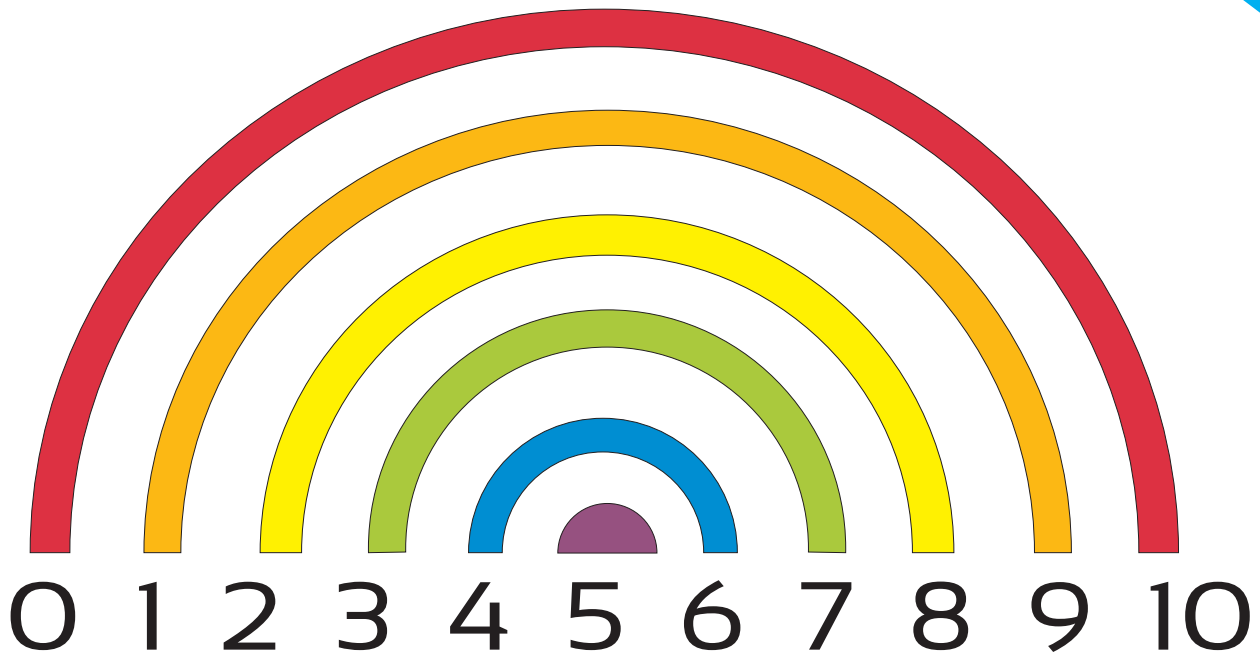
- Create poster*.
- Print and glue into books or laminate and store as class set*.
- Use the rainbow to have students find the pairs.
- Have them find one number such as 3, then trace the rainbow and find the matching number to make 10.
- Complete the worksheets using the rainbow chart as a guide.

*Poster can be created from template. Enlarge if necessary. Use decorate your classroom and remind students of the pairs.

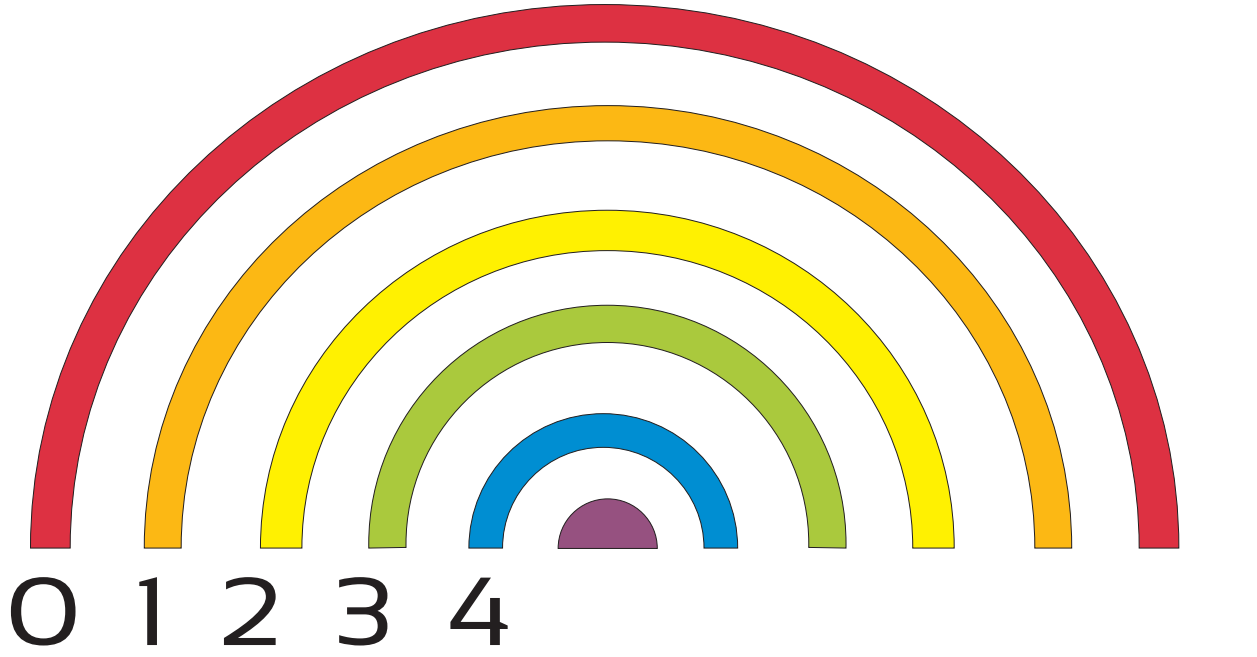
*Class set of laminated rainbows can be created and stored for future use.



Rainbow Pairs to 10

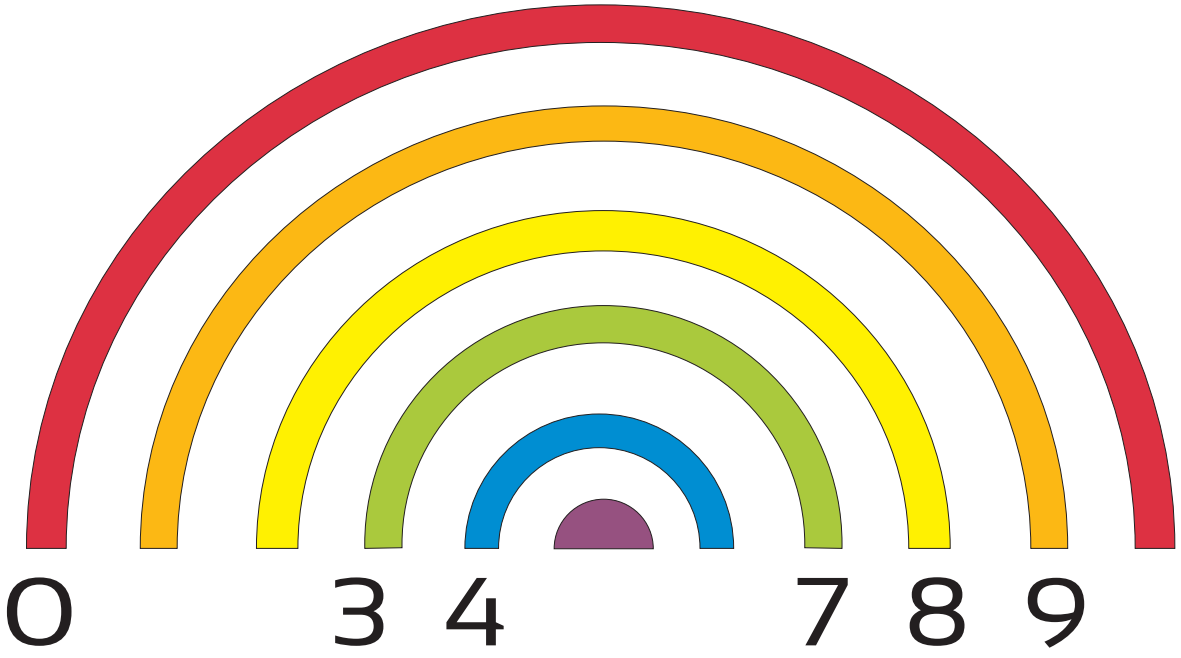


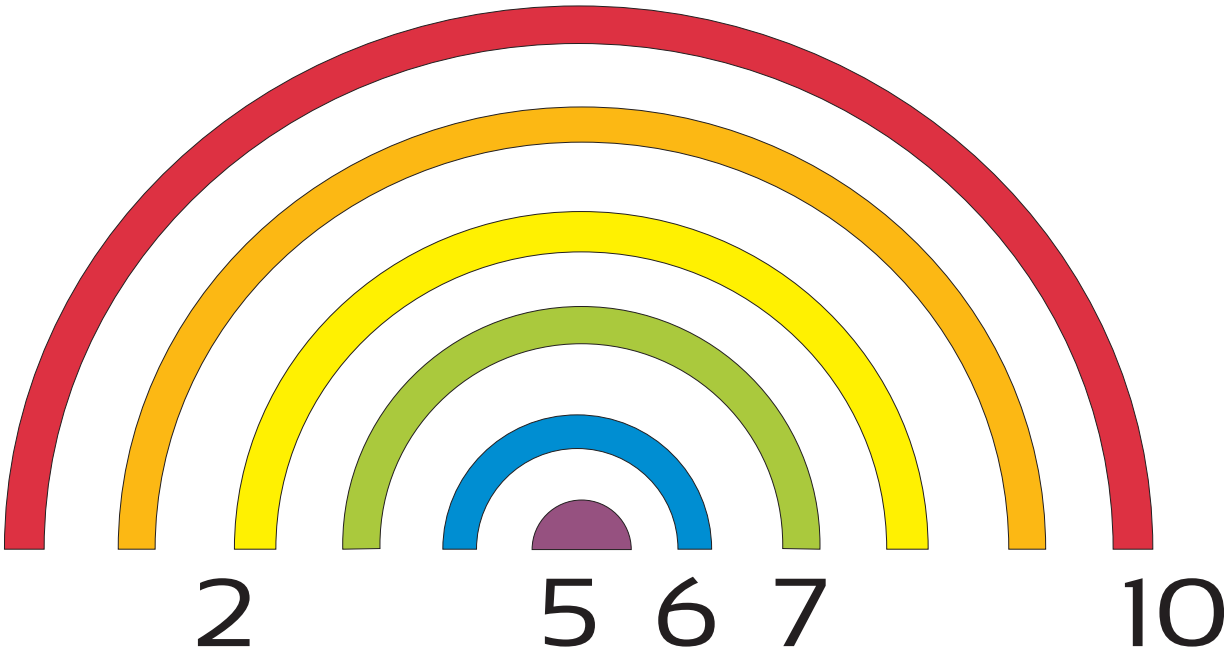
This rainbow picture shows the pairs to 10 linked together.
See if you can find the pairs. Match the 2 ends of the same bow in the rainbow.
Follow your finger around the bow and write in the matching pair.



Rainbow Pairs to 10

See if you can find the pairs. Match the 2 ends of the same bow in the rainbow. Follow your finger around the bow and write in the missing number in the pair.





Rainbow Pairs to 10

0 1 2 3 4 5 6 7 8 9 10

	and				and		
	and				and		
	and				and		

Write the missing number in each pair.

6	and		8	and	

Lesson 5D

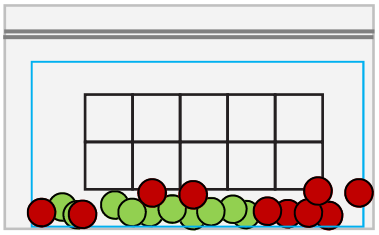
Difference between 10 and ____.

Hand out ten frames and counters*.

Note: Before using the Ten Frames Gadget, make sure students do lots of hands on activities with their own ten frames. The concept of the difference between 10 and another number, needs to be established in their minds before moving to the more abstract ten frames on the screen. Students need to see the 10 counters on their ten frames, with the counters of the number to be compared overlaid. Using the Gadget, whilst showing students what is happening, is not a substitute for working with real concrete objects.

*Place Laminated ten frames and counters in bags. Ensure all students have their own set of counters and there are two sets of 10 counters with different shades e.g. green and red.

Store individually in zip lock bags or containers.



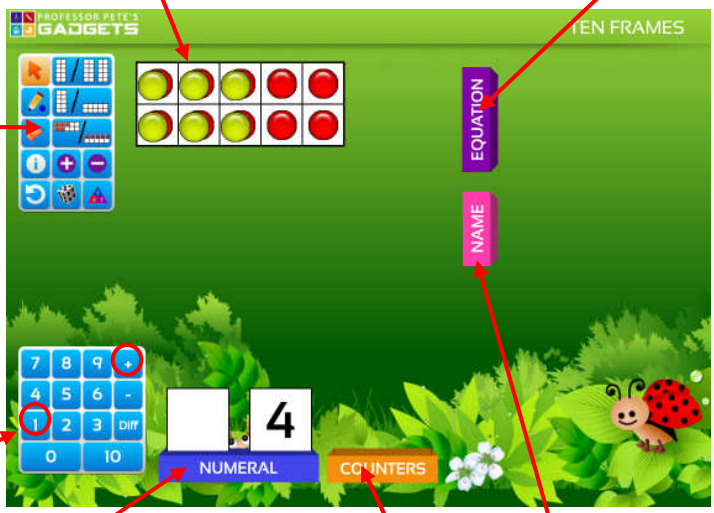
I**t is important to have students show numbers "the difference between" on their ten frames.** Make sure they use a different shade of counters for the two number so be compared, as this helps establish this pairs concept in their minds.

Once this concept is established then move on to using the **Ten Frames Gadget.**

Set the Ten Frames gadget to these settings:

Ten Frame: single frame

EQUATION: hide it unless your students are already familiar with the "+" sign.



Tool Panel: Check default settings

- Single ten frame
- Horizontal or vertical layout
- Set arrangement

Key Pad: for entering numbers e.g. "10 Diff 6"

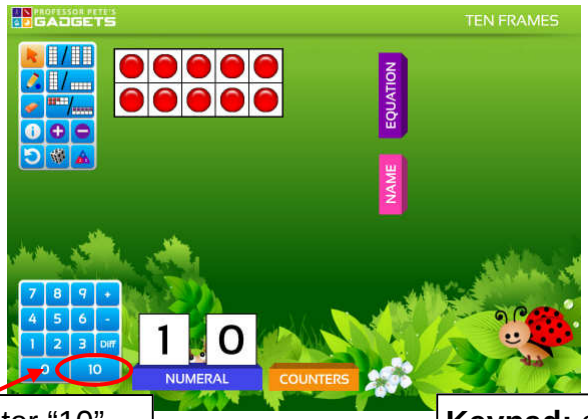
NAME: hide it (close it)

NUMERAL: hide or show the written form of the number

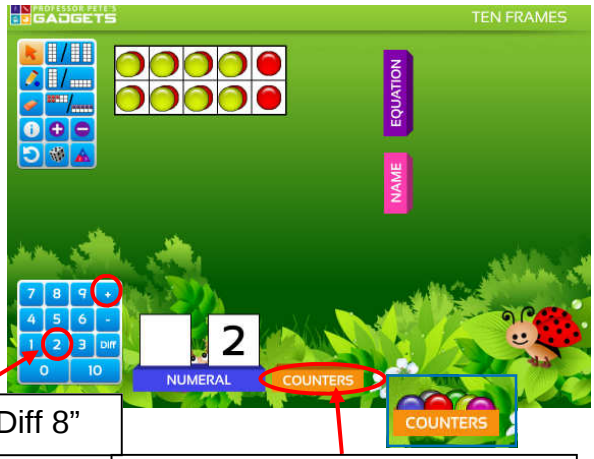
COUNTERS: hide or show the counters on the ten frames

Lesson 5D Cont'd

- Close all boxes except keep the counters on screen.
- Enter the number 10.
- Ask students what the difference is between 10 and 8. (Choose a number larger than 5 to start with.)
- Enter "Diff 8" on the keypad and check the answer.



Keypad: enter "10"



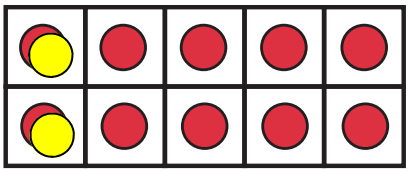
Keypad: enter "Diff 8"

Hide counters: ask students to show on their ten frames first

- Reset the screen.
- Repeat above steps with other numbers.
- Use the different layouts and arrangements. Some arrangements such as "10 Diff 5" suits the rows arrangement, whereas the even numbers suits the pairs arrangement best.
- Ask students to show you using their ten frames so they can count and touch the concrete materials. Make sure they use the different shaded counter so that they can clearly see the original number and then the number completes the ten frame.
- **Hide the counters:** Ask the students to show 10 on their ten frames. Ask them to find the the difference between that and another number. Once they have completed this, check their answer by showing it on screen.
- **Worksheet activities:** Complete only some of them. Remember you do not need to do all the activities but choose the best ones most suitable for your students. Alternatively you could use the extra worksheets for early finishers. Some worksheets are revision sheets.

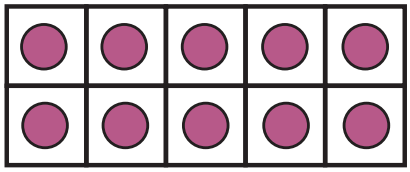
Rainbow Pairs to 10

Here is a full ten frame.
Place another row of counters on top to find the difference between the number and 10.

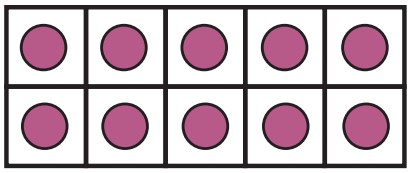


The difference between 10 and 2 is ☐

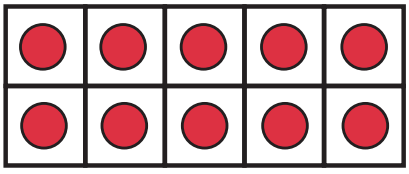
Draw another dot over the dots on the ten frame to find the difference between...



The difference between 10 and 5 is ☐



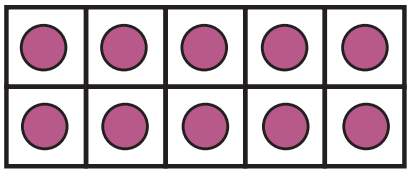
The difference between 10 and 7 is ☐



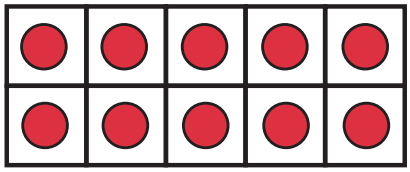
The difference between 10 and 6 is ☐

Rainbow Pairs to 10

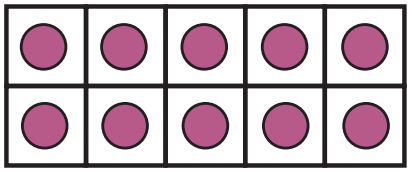
Draw another dot over the dots on the ten frame to find the difference between...



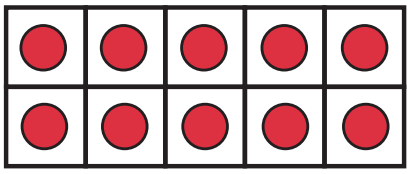
The difference between 10 and 9 is ☐



The difference between 10 and 4 is ☐



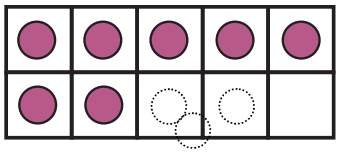
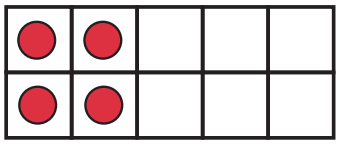
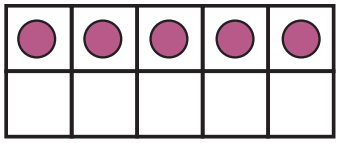
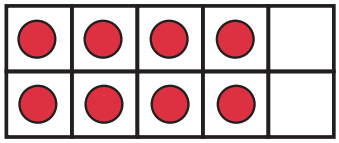
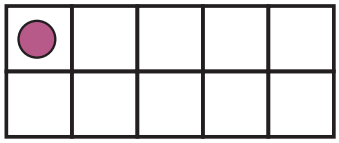
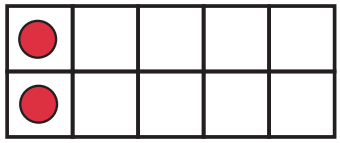
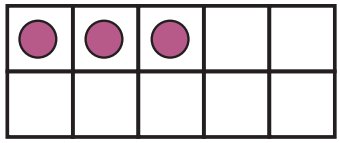
The difference between 10 and 3 is ☐



The difference between 10 and 8 is ☐

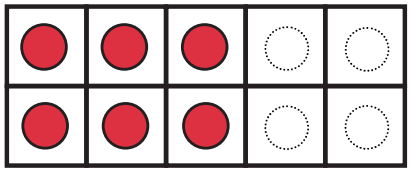
Rainbow Pairs to 10

Draw the missing dots then write the missing number to make the pairs to 10.

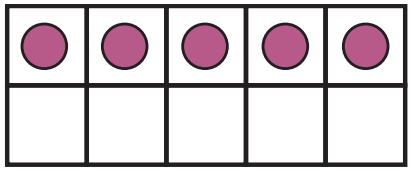
	☐ and ☐
	☐ and ☐
	☐ and ☐
	☐ and ☐
	☐ and ☐
	☐ and ☐
	☐ and ☐

Rainbow Pairs to 10

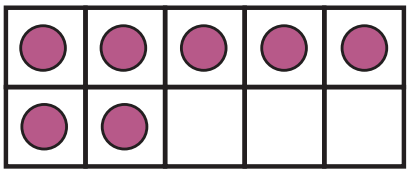
Look at the dots, write the number, then picture and write the dots needed to make up the 10.



and



and



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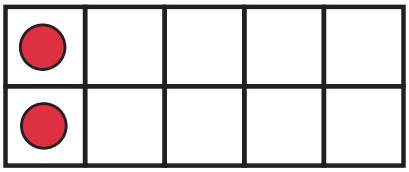
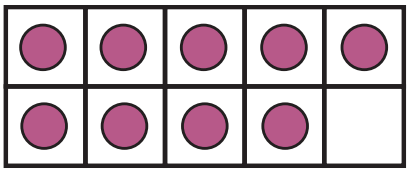
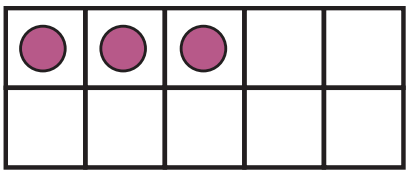


and



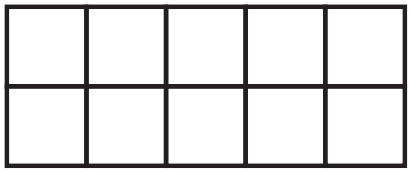
and



and

Rainbow Pairs to 10

Use your ten frame. Put counters on the ten frame for the first number, then picture the missing counters.



3 and ☐

8 and ☐

5 and ☐

4 and ☐

0 and ☐

9 and ☐

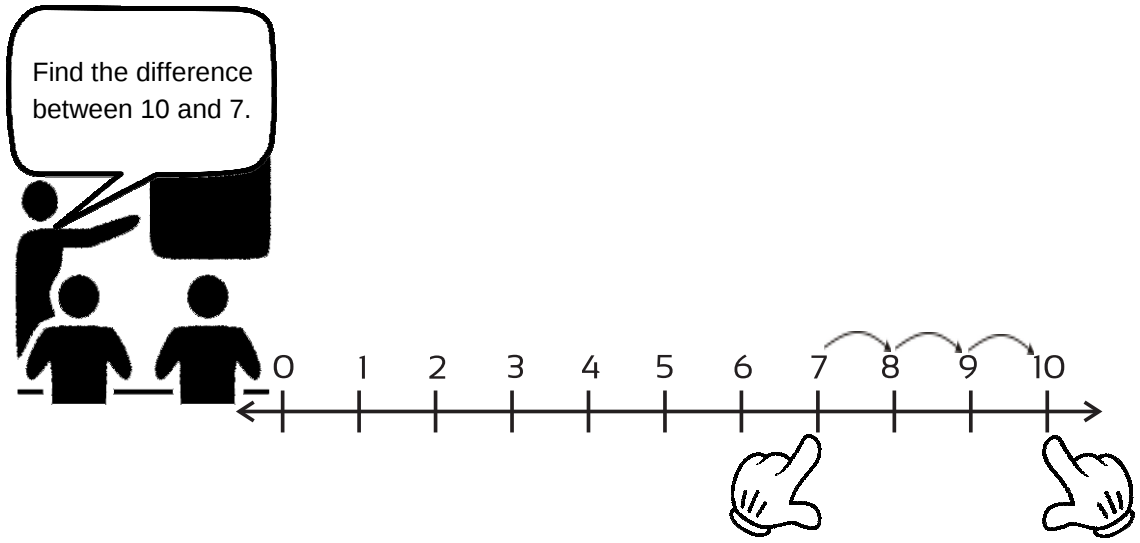
Lesson 5E Challenge activity (optional)

Using a number line for the difference between 10 and ____.

Hand out the laminated number lines*.

Note: Number lines, whilst showing numbers the difference between numbers that are close together, are not so good for comparing numbers that have a greater difference. Teacher discretion is needed to decide if your students are ready for this activity. Skip this acitivity if you prefer.

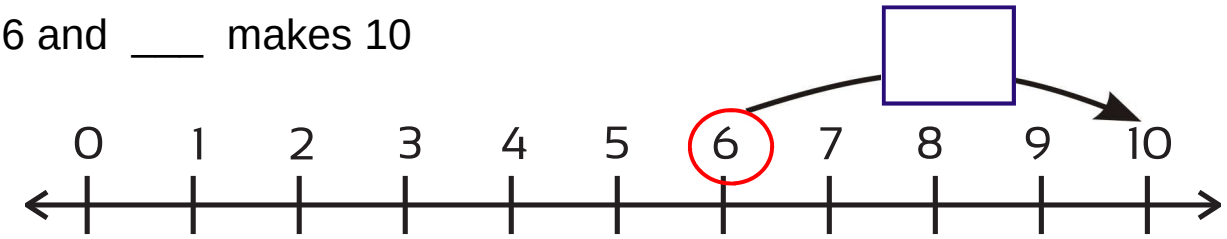
- Start with numbers that are close to the ten.
- Have students put one finger on their right hand on the ten and their left hand finger on 9.
- Have the students tell the difference between 10 and 9. (Answer: 1 hop)
- Repeat using other numbers.
- Use the closer numbers to 10 first, then move to numbers less than 5. Stop it students are finding counting the hops too difficult.
-



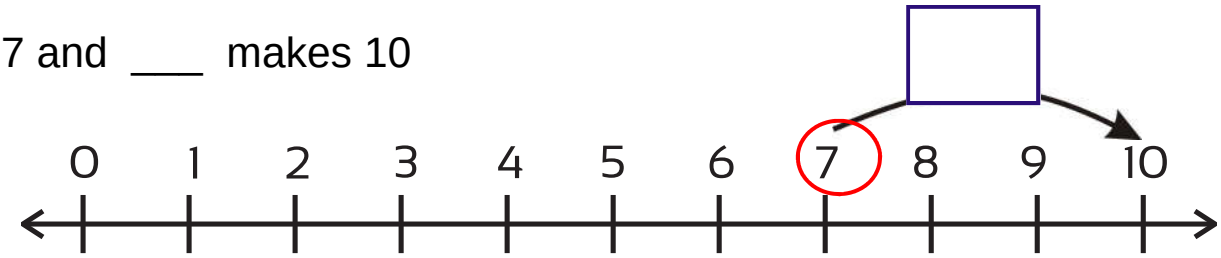
Rainbow Pairs to 10

Find the number on a number line. Circle the starting number.
How many hops to make the new number? Can you guess without counting?

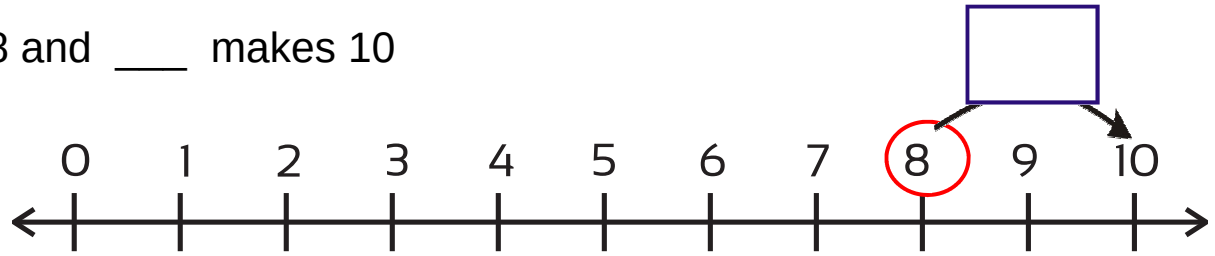
6 and ___ makes 10



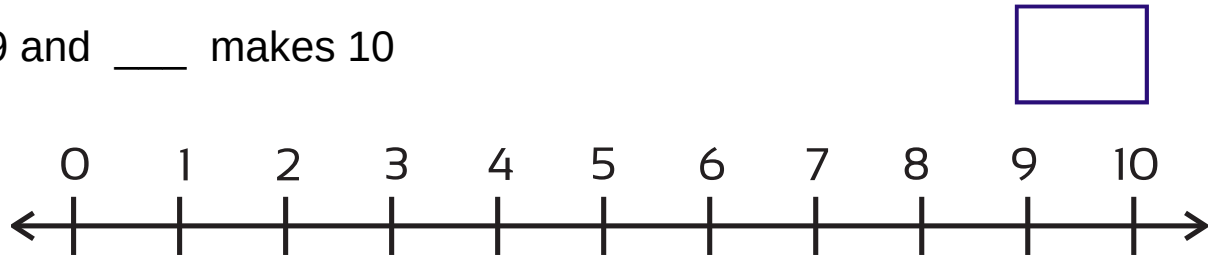
7 and ___ makes 10



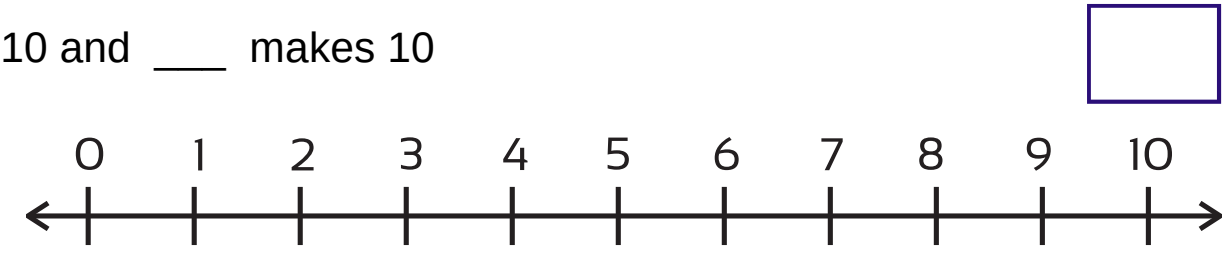
8 and ___ makes 10



9 and ___ makes 10



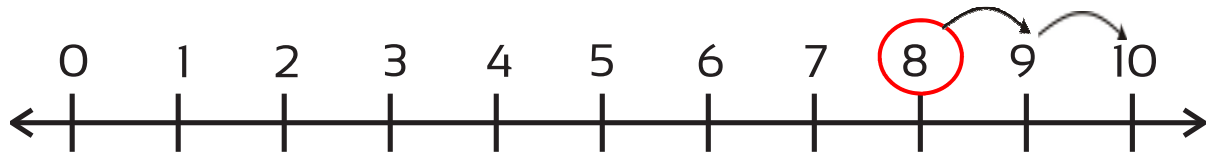
10 and ___ makes 10



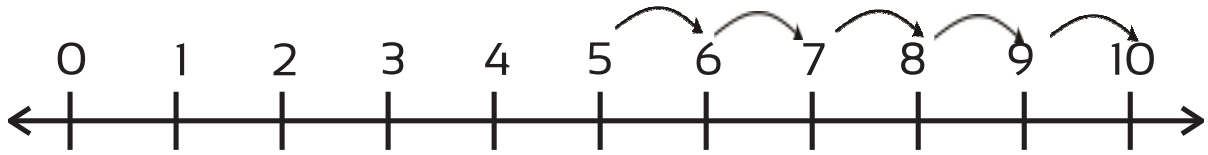
Rainbow Pairs to 10

Find the number on a number line. Circle the starting number.
How many hops to make the new number? Can you guess without counting?

8 and ___ makes 10



5 and ___ makes 10



7 and ___ makes 10

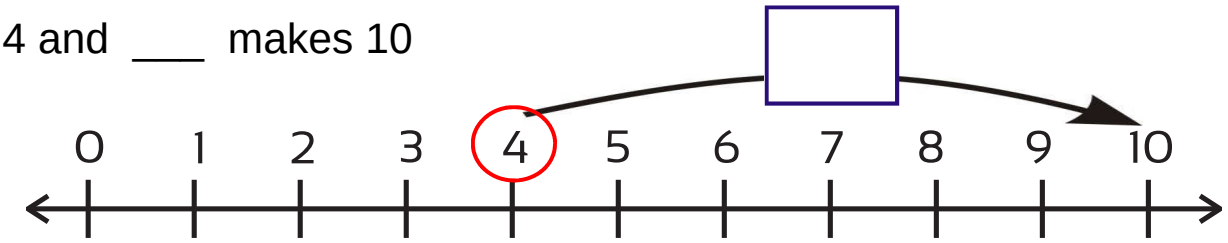
10 and ___ makes 10

9 and ___ makes 10

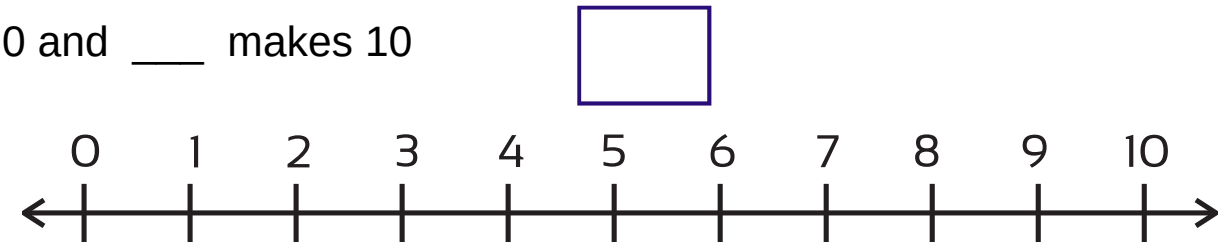
Rainbow Pairs to 10

Find the number on a number line. Circle the starting number.
How many hops to make the new number? Can you guess without counting?

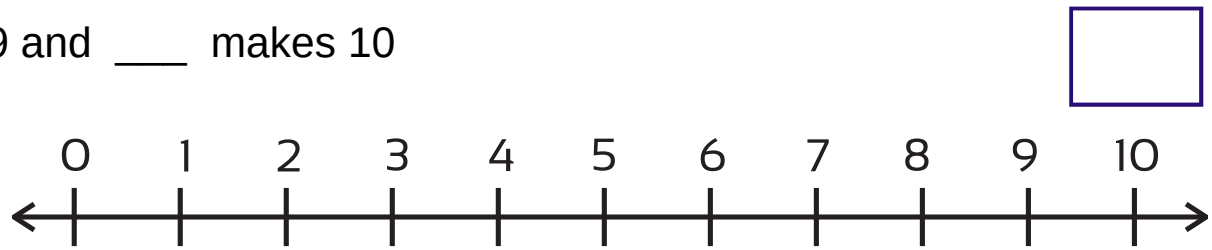
4 and ___ makes 10



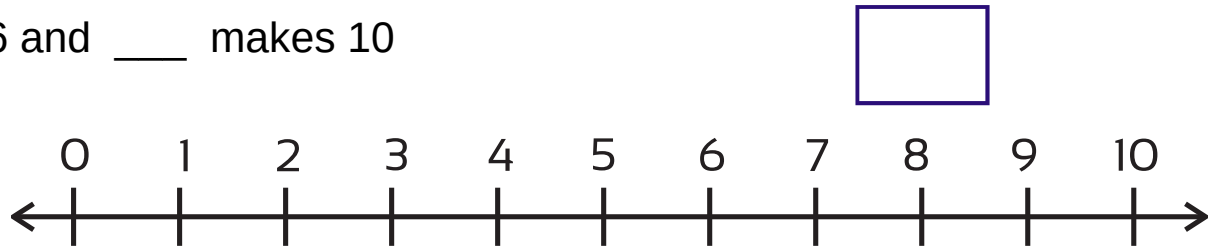
0 and ___ makes 10



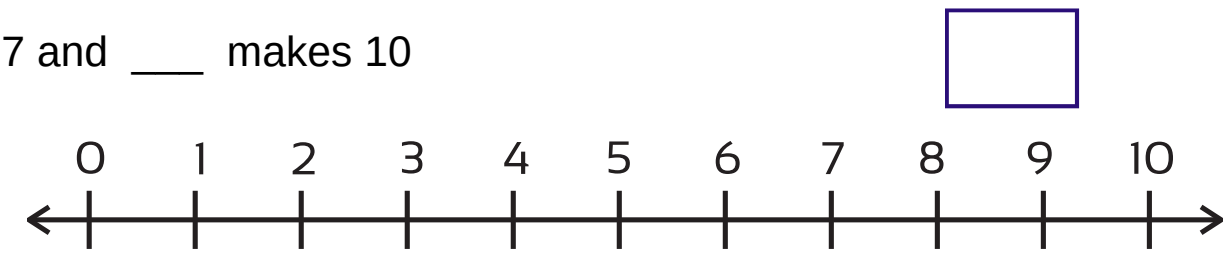
9 and ___ makes 10



6 and ___ makes 10



7 and ___ makes 10



Rainbow Pairs to 10

Use the number line to help you find the difference between these numbers.
Place two fingers on the two numbers and count the hops in between.

The difference between 8 and 10 is	
The difference between 2 and 10 is	
The difference between 6 and 10 is	
The difference between 4 and 10 is	
The difference between 9 and 10 is	
The difference between 7 and 10 is	
The difference between 0 and 10 is	
The difference between 10 and 10 is	
The difference between 5 and 10 is	