



# Maths

## Addition and Subtraction

# Need a coherently planned sequence of lessons to complement this resource?

**Lesson Breakdown**

Below is our suggestion for the most coherent and progressive sequence to teach this area of Planit Maths steps on the White Rose Maths scheme of learning although we have not aimed to mirror the exact order in which they are presented.

**Recall and Use Facts (1): Number Facts up to 10**

This computer game based lesson is designed to help children secure their understanding of number facts. Children use a range of methods to investigate and check if they are correct. Differentiated activity sheets and mastery cards to help children.

**NC Statement:** Recall and use facts to 20 fluently and derive and use related facts up to 100.

**Lesson Aim:** To recall and use number facts up to 10.

**Recall and Use Facts (2): Number Facts up to 20**

This lesson teaches children to use familiar number facts to solve and create problems. Children are encouraged to use different representations to support their learning. Differentiated activity sheets and mastery cards to help children develop fluency.

**NC Statement:** Recall and use facts to 20 fluently and derive and use related facts up to 100.

**Lesson Aim:** To recall and use number facts up to 20.

**Solve Problems (1): Using Different Representations to Solve Problems**

Children learn to solve addition and subtraction problems using concrete objects and pictorial representations, including those involving numbers, quantities and measures, applying their increasing knowledge of mental and written methods. This lesson includes Diving into Mastery activity cards with fluency reasoning.

**NC Statement:** Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures, applying their increasing knowledge of mental and written methods.

**Lesson Aim:** To solve addition and subtraction problems using objects, pictures and models.

**Introduction**

In this unit, children will learn to recall and use addition and subtraction facts. They use a variety of different models, images and equipment to build their number sense, enabling them to use facts flexibly. They learn different strategies to help them add and subtract numbers efficiently, explaining their methods with concrete resources or jottings. Methods include: adding a unit to a ten, adding three single-digit numbers and adding and subtracting multiples of ten leading to pairs of two-digit numbers. They find the difference between numbers and reason about when it is quicker to find the difference or take away. They build up their understanding of commutativity and inverse relationships, using these to solve increasingly complex missing number problems. They apply their learning to problem-solving, and are able to ask questions, explain their choices and demonstrate their methods.

**Resources**

In addition to your standard maths resources, you will need:

- digital cameras

**Assessment Statements**

By the end of this unit;

children working towards the expected level will be able to:

- recall and use at least four out of six number facts to ten and derive their associated subtraction facts;
- add and subtract two-digit numbers and ones, and two-digit numbers and tens, where no regrouping is required;
- explain their addition and subtraction methods verbally, in pictures or using apparatus;
- understand that two numbers can be added in any order and the answer will be the same.

children working at the expected level will be able to:

- recall number facts to add and within ten and subtraction facts. Use these to derive number and within 20 and 100;
- add and subtract within 100: a two-digit number and ones, a two-digit number and tens, two two-digit numbers;
- add three one digit numbers using efficient methods;
- understand that addition is commutative but subtraction is not, and explain what this means;
- use the inverse relationship between addition and subtraction to solve problems and check their calculations;
- solve addition and subtraction problems in context of quantities and measures, using pictures and mentally.

**Addition and Subtraction**

Maths | Year 2 | Steps to Progression Overview

The aim of this overview is to support teachers using Planit Maths to show the most coherent and progressive sequence to teach each area of maths. We also want to fully support teachers who use the White Rose Maths scheme of learning to make full use of the resources available within Planit Maths. Whenever possible, lesson packs have been matched to each of the small steps on the White Rose Maths scheme of learning.

**Yearly Overview**

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value		Number: Addition and Subtraction					Measurement: Money		Number: Multiplication and Division		
Spring	Number: Multiplication and Division		Statistics		Geometry: Properties of Shape			Number: Fractions		Measurement: Length and Height Consolidation		
Summer	Position and Direction		Problem Solving and Efficient Methods		Measurement: Time		Measurement: Mass, Capacity and Temperature		Investigations			

See our [Addition and Subtraction Steps to Progression](#) document.

Twinkl Planit is our award-winning scheme of work with over 4000 resources.



# Subtract Across Ten



# Aim

- To subtract across 10.

# Success Criteria

- I can recall number facts of 10.
- I can use ten-frames to subtract across ten.
- I can use part-whole models to subtract across ten.

# Remember It



Use number facts to subtract from ten.  
Pick a piece of fruit and hold up your fingers to show the missing part.

 $10 - 2 = \boxed{8}$

 $10 - 5 = \boxed{5}$

 $10 - 3 = \boxed{7}$

 $10 - 8 = \boxed{2}$

 $10 - 9 = \boxed{1}$

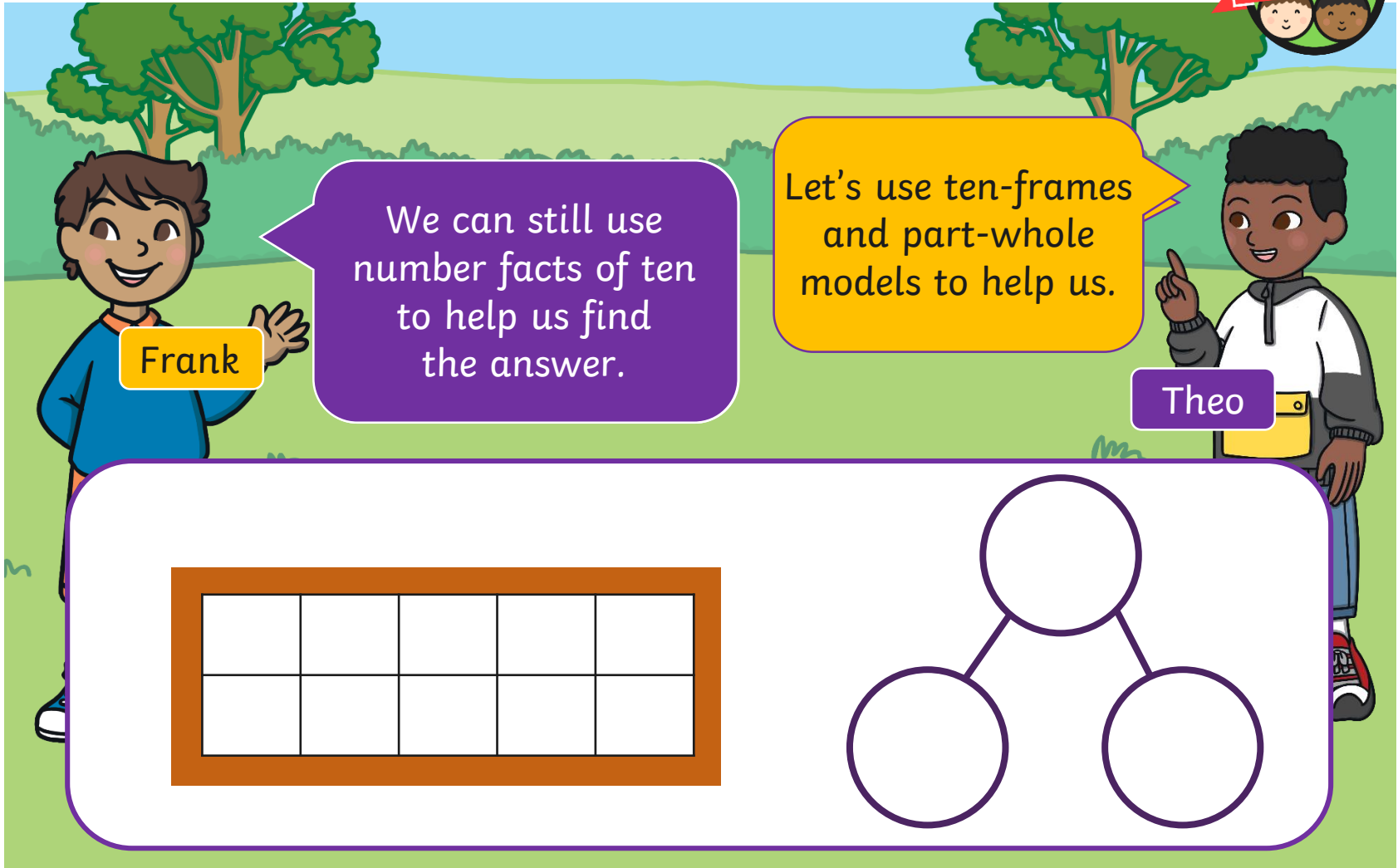
 $10 - 6 = \boxed{4}$

 $10 - 4 = \boxed{6}$

 $10 - 7 = \boxed{3}$

Click on the fruit to reveal the answer.

# Buy It

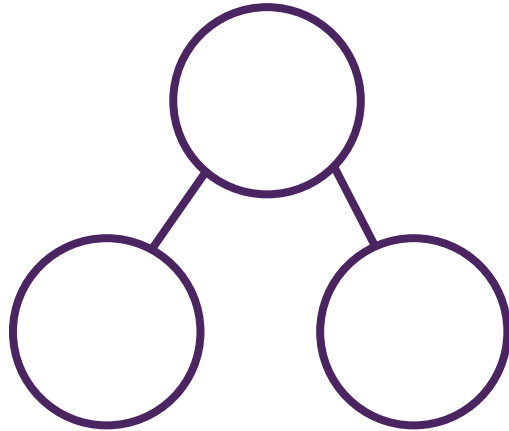
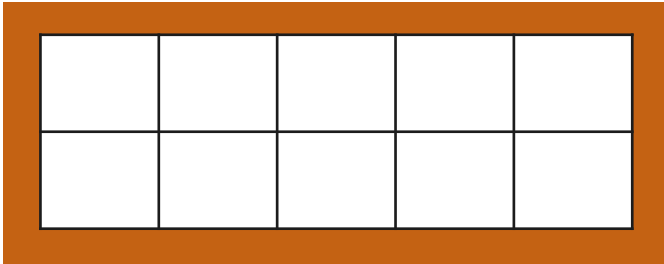


Frank

We can still use number facts of ten to help us find the answer.

Let's use ten-frames and part-whole models to help us.

Theo



# Buy It

Whole Class

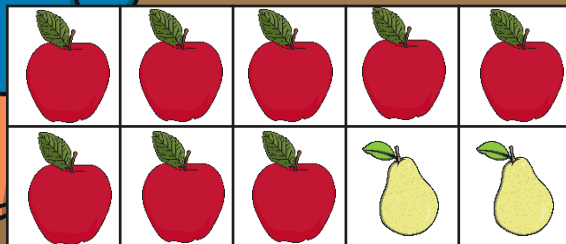
Frank and Theo are selling fruit. Each box can hold ten pieces.

Empty a ten-frame before taking fruit out of another one.

$$14 - 6 = 8$$

I know that 6 is a 4 and a 2. So I'll take 4 from here, then I'll take 2 from the other ten-frame.

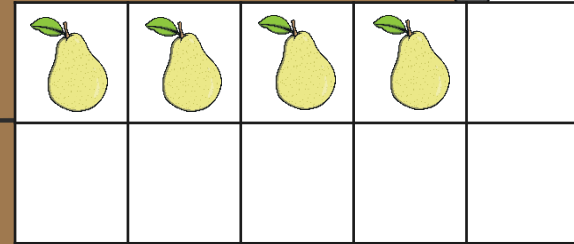
Frank



$$14 - 4 = 10$$

$$10 - 2 = 8$$

Theo



They subtracted to the nearest ten, then subtracted the other part.

# Buy It

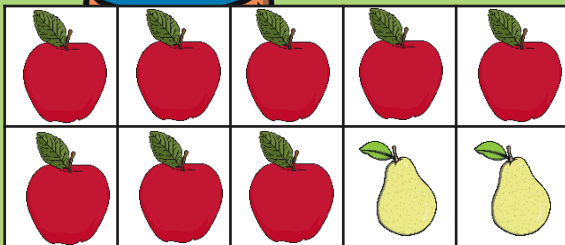
Whole Class

They subtracted to the nearest ten, then subtracted the other part.

$$14 - 6 = 8$$

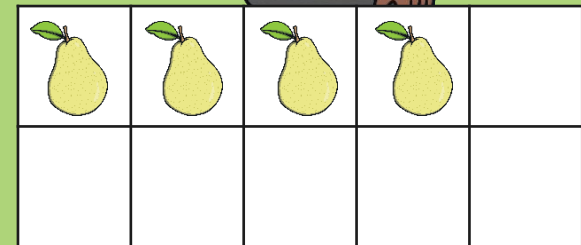
4

2



$$14 - 4 = 10$$

$$10 - 2 = 8$$





# Buy It

Whole Class

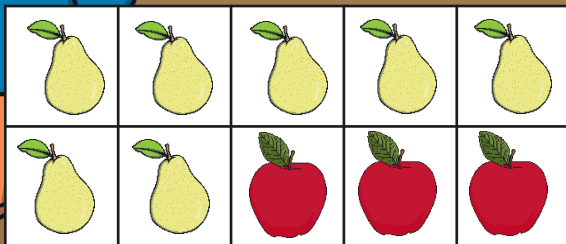
Frank and Theo are selling fruit. Each box can hold ten pieces.

Empty a ten-frame before taking fruit out of another one.

$$12 - 5 = 7$$

I know that 5 is a 3 and a 2. So I'll take 2 from here, then I'll take 3 from the other ten-frame.

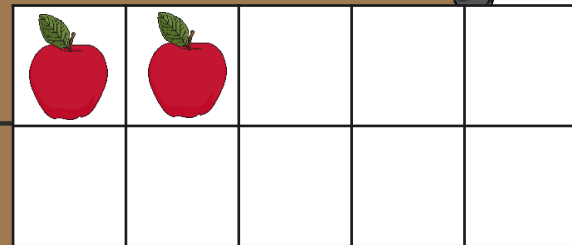
Frank



$$12 - 2 = 10$$

$$10 - 3 = 7$$

Theo



They subtracted to the nearest ten, then subtracted the other part.

# Buy It

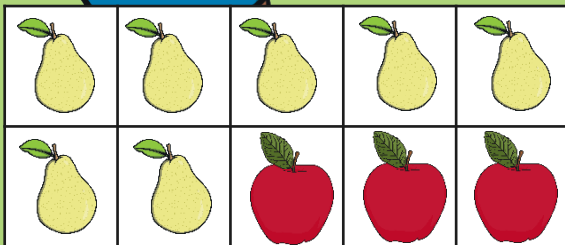
Whole Class

They subtracted to the nearest ten, then subtracted the other part.

$$12 - 5 = 7$$

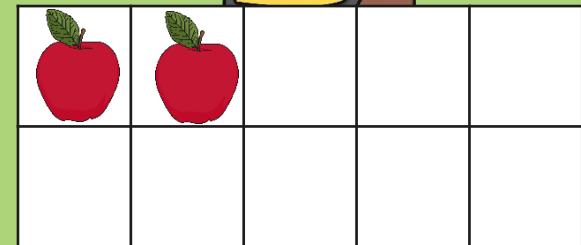
2

3



$$12 - 2 = 10$$

$$10 - 3 = 7$$



# Buy It

Whole Class

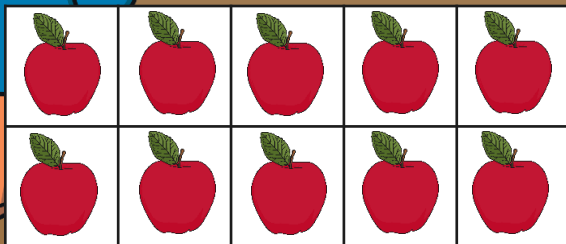
Frank and Theo are selling fruit. Each box can hold ten pieces.

Empty a ten-frame before taking fruit out of another one.

$$13 - 8 = 5$$

I know that 8 is a 3 and a 5. So I'll take 3 from here, then I'll take 5 from the other ten-frame.

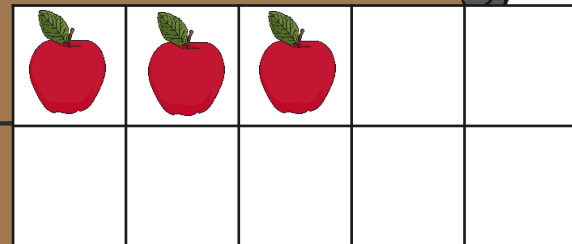
Frank



$$13 - 3 = 10$$

$$10 - 5 = 5$$

Theo



They subtracted to the nearest ten, then subtracted the other part.

# Buy It

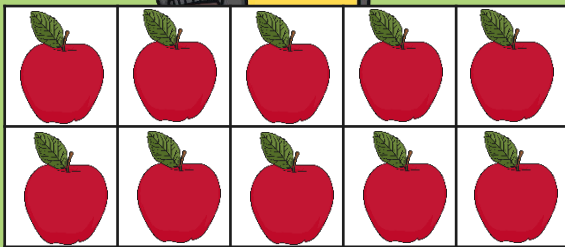
Whole Class

They subtracted to the nearest ten, then subtracted the other part.

$$13 - 8 = 5$$

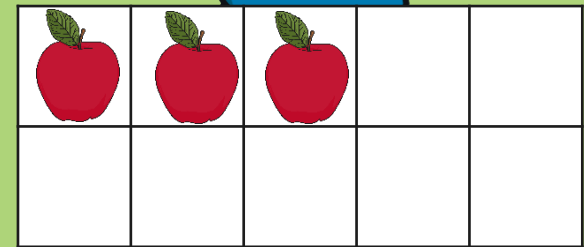
3

5



$$13 - 3 = 10$$

$$10 - 5 = 5$$



# Buy It

Whole Class

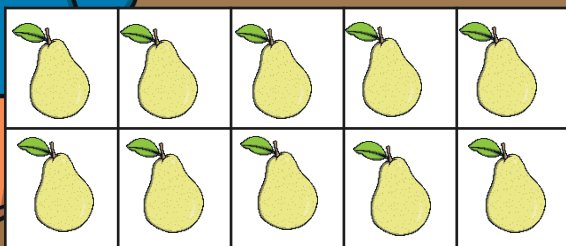
Frank and Theo are selling fruit. Each box can hold ten pieces.

Empty a ten-frame before taking fruit out of another one.

$$15 - 9 = 6$$

I know that 9 is a 5 and a 4. So I'll take 5 from here, then I'll take 4 from the other ten-frame.

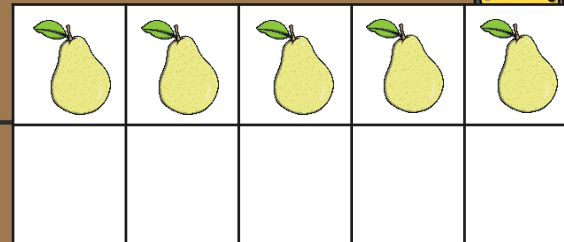
Frank



$$15 - 5 = 10$$

$$10 - 4 = 6$$

Theo



They subtracted to the nearest ten, then subtracted the other part.

# Buy It

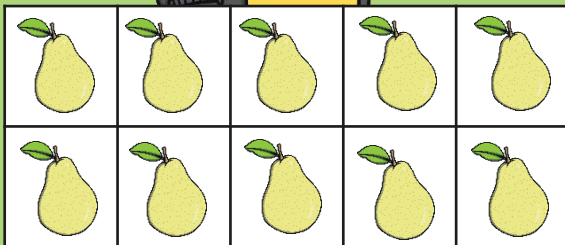
Whole Class

They subtracted to the nearest ten, then subtracted the other part.

$$15 - 9 = 6$$

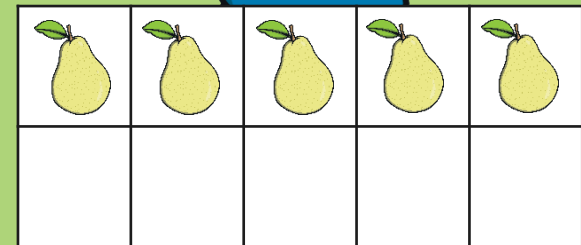
5

4



$$15 - 5 = 10$$

$$10 - 4 = 6$$



# Try It



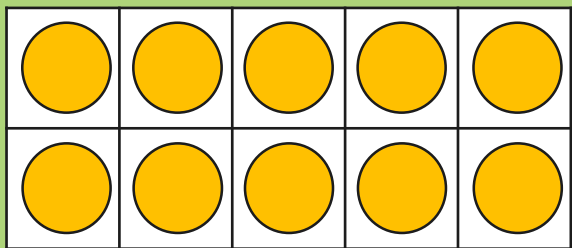
Find 11 counters.

$$11 - 2 = 9$$

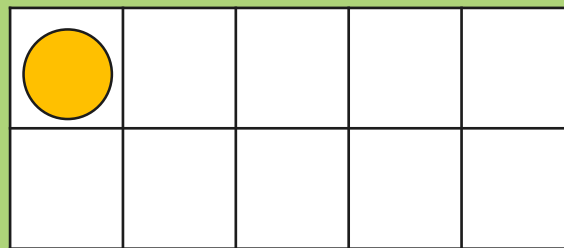
1

1

Fill this ten-frame with 10 counters.



Put the other counter here.



There's only 1 counter in this ten-frame. ↑  
How many should we take from the other ten-frame to make 2?  
How many counters are left?

# Try It

Whole Class

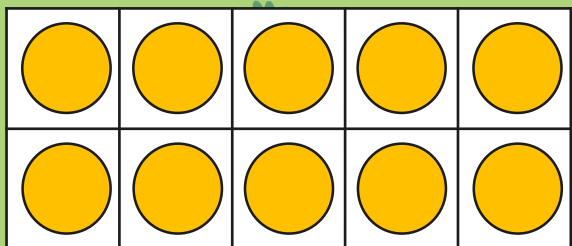
How many counters do you need to start with?

$$14 - 7 = 7$$

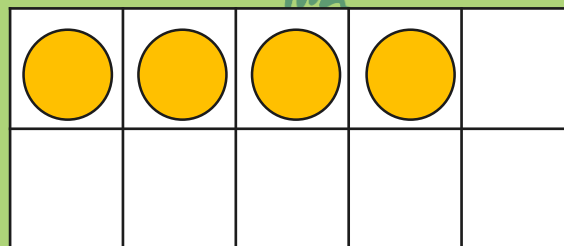
4

3

Fill this  
ten-frame first.



How many more do  
you have to put here?



↑ How many do you need to take away? ↑  
How many counters can you take from this ten-frame?  
How many will you need to take from this ten-frame?  
How many counters are left?



# Try It

Whole Class

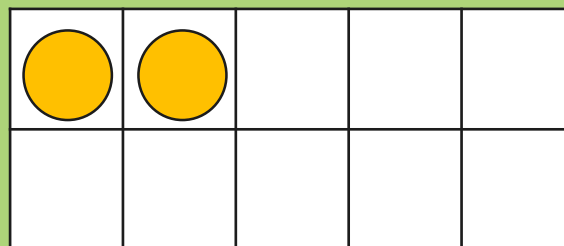
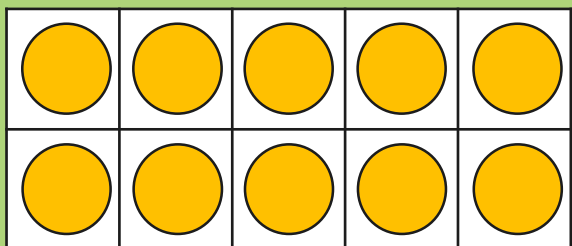
How many counters do you need to start with?

$$12 - 4 = 8$$

2

2

Where do the counters go?



Which ten-frame will you empty first?

What will you do next?

How many counters are left?

# Subtract Across 10 Activity Sheets



## Subtract Across 10

I can subtract across 10.

Use the part-whole models and ten-frames to subtract the numbers.



Cross out the pictures of fruit as you subtract them.

**Fresh Fruit**

$18 - 9 = \square$

8 1

**Fresh Fruit**

$16 - 8 = \square$

6 2

**Fresh Fruit**

$11 - 6 = \square$

**Fresh Fruit**

$13 - 7 = \square$

10

**Fresh Fruit**

$6 - 7 = \square$

**Fresh Fruit**

$6 = \square$

10

**Fresh Fruit**

act the numbers.

$3 - 7 = \square$

3 4

**Fresh Fruit**

$4 - 9 = \square$

4 5

10

**Fresh Fruit**

$4 - 8 = \square$

**Fresh Fruit**

$7 = \square$

10

**Fresh Fruit**

act the numbers.

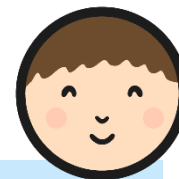
$4 - 5 = \square$

4 1

**Fresh Fruit**

$2 - 6 = \square$

## Diving into Mastery



Dive in by completing your own activity!



**Subtract Across 10**

Customers have ordered fruit to collect.

Help us pack the bags of fruit. How much fruit will we have left?

**Fresh Fruit**  $13 - 6 = \square$   
6 apples

**Fresh Fruit**  $12 - 4 = \square$   
4 pears

We have 11 apples left to sell. I want to buy 5 to take home.

How many would be left?

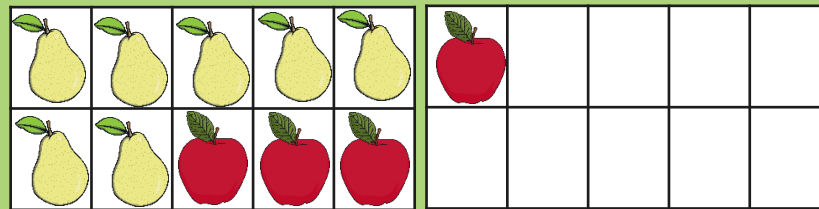
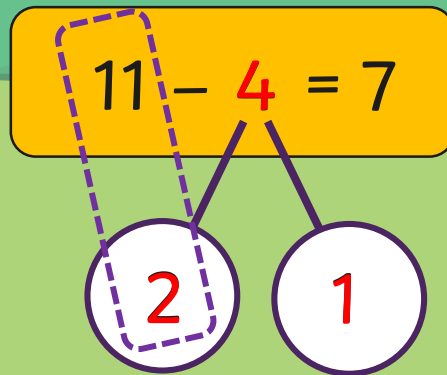
$\square - \square = \square$

or  
ions  
out?

# Check It



Frank and Theo are learning how to subtract with part-whole models and ten-frames. Can you spot their mistakes?

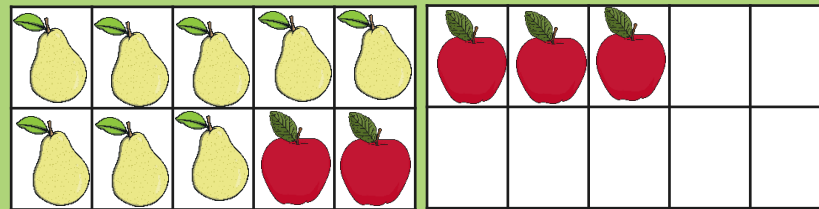
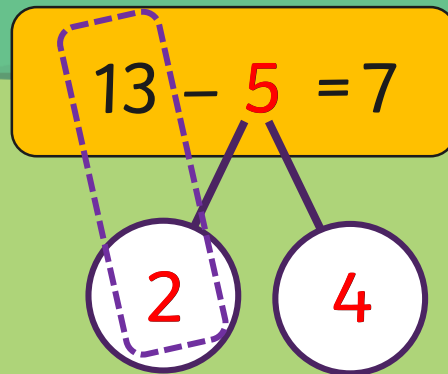


What could they practise to help with their learning?  
Practising number facts would help Frank and Theo.

# Check It



Frank and Theo are learning how to subtract with part-whole models and ten-frames. Can you spot their mistakes?



What could they practise to help with their learning?  
Practising number facts would help Frank and Theo.

# Aim



- To subtract across 10.

# Success Criteria

- I can recall number facts of 10.
- I can use ten-frames to subtract across ten.
- I can use part-whole models to subtract across ten.

