



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 marked to teach 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.



Number Facts of 100



Aim

- To derive and use addition and subtraction facts of 100 (multiples of 10).

Success Criteria

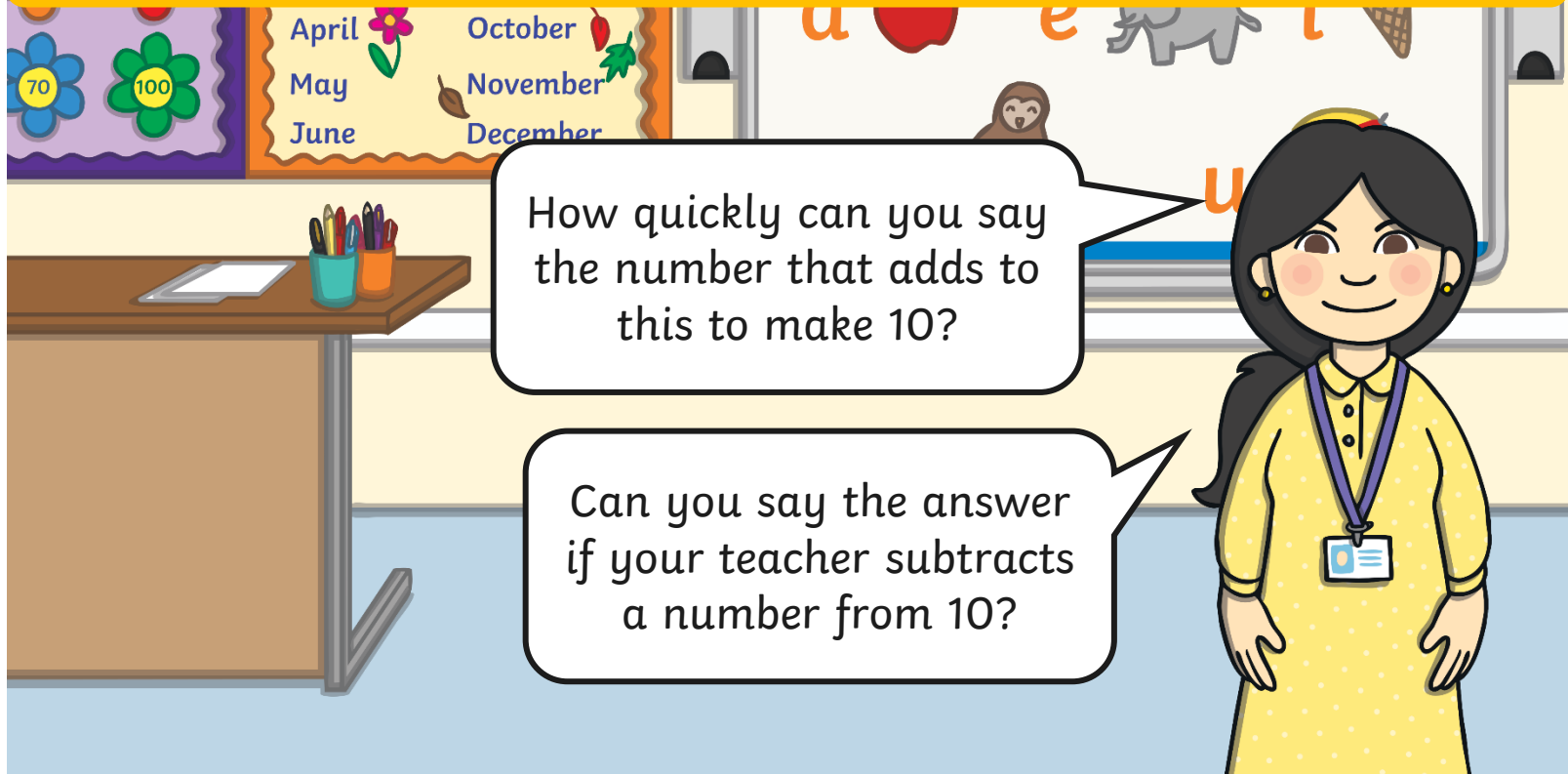
- I can derive addition and subtraction facts of 100 (multiples of 10).
- I can use these addition and subtraction facts in a context.

Remember It



Your teacher will throw a beanbag to someone in the class.

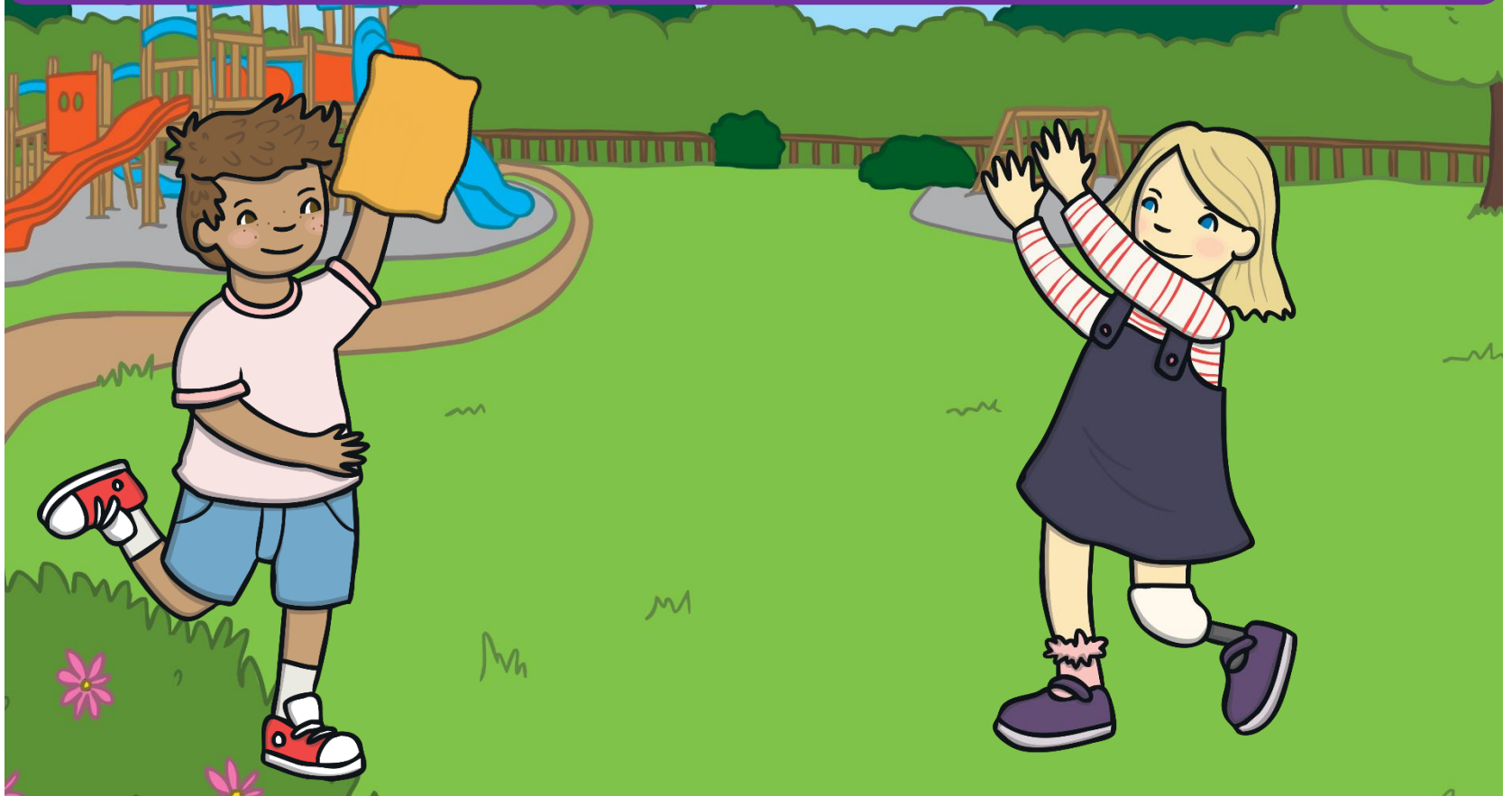
They will say a number from 0 – 10.



Remember It



Try playing the game with a partner. You could throw a bean bag or start with 10 cubes and hide some.



Number Bonds



You will already know lots of facts.

We can use these to make new facts.



$$7 + 3 = 10$$

$$10 - 7 = 3$$

$$3 + 7 = 10$$

$$10 - 3 = 7$$

Number Bonds



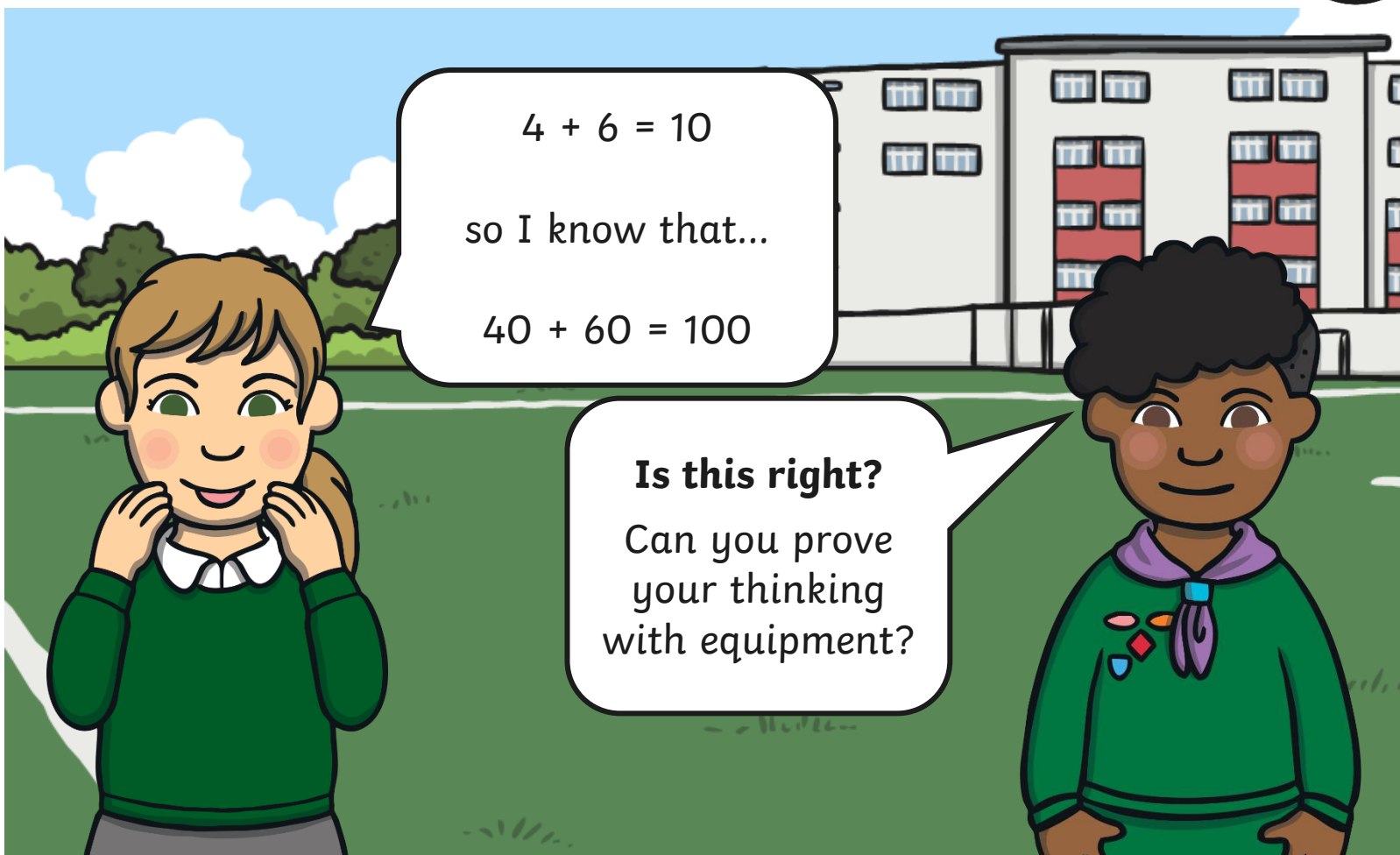
$$4 + 6 = 10$$

so I know that...

$$40 + 60 = 100$$

Is this right?

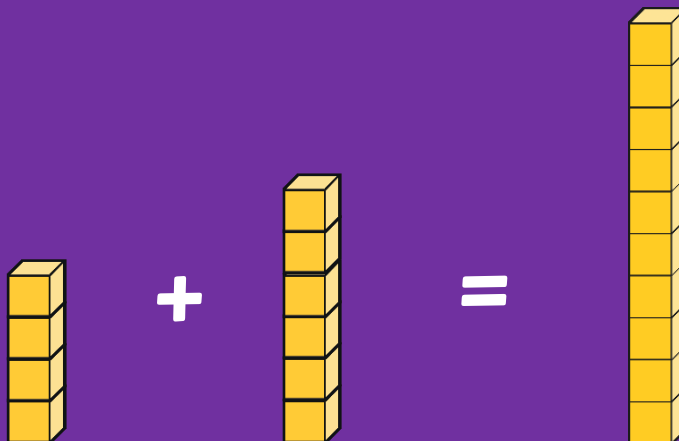
Can you prove
your thinking
with equipment?



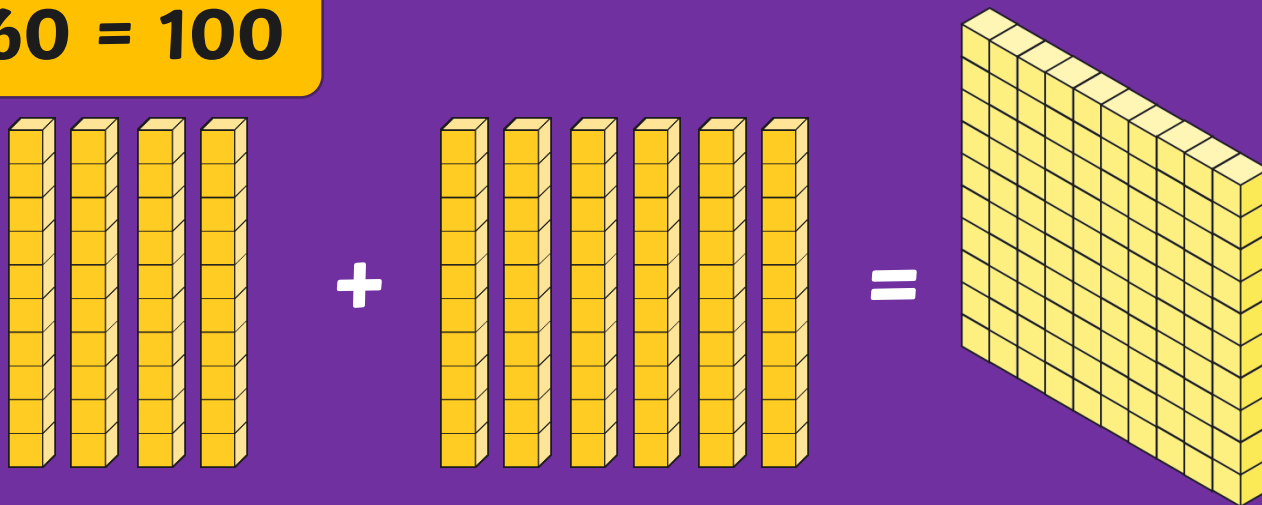
Number Bonds



$$4 + 6 = 10$$



$$40 + 60 = 100$$



Number Bonds



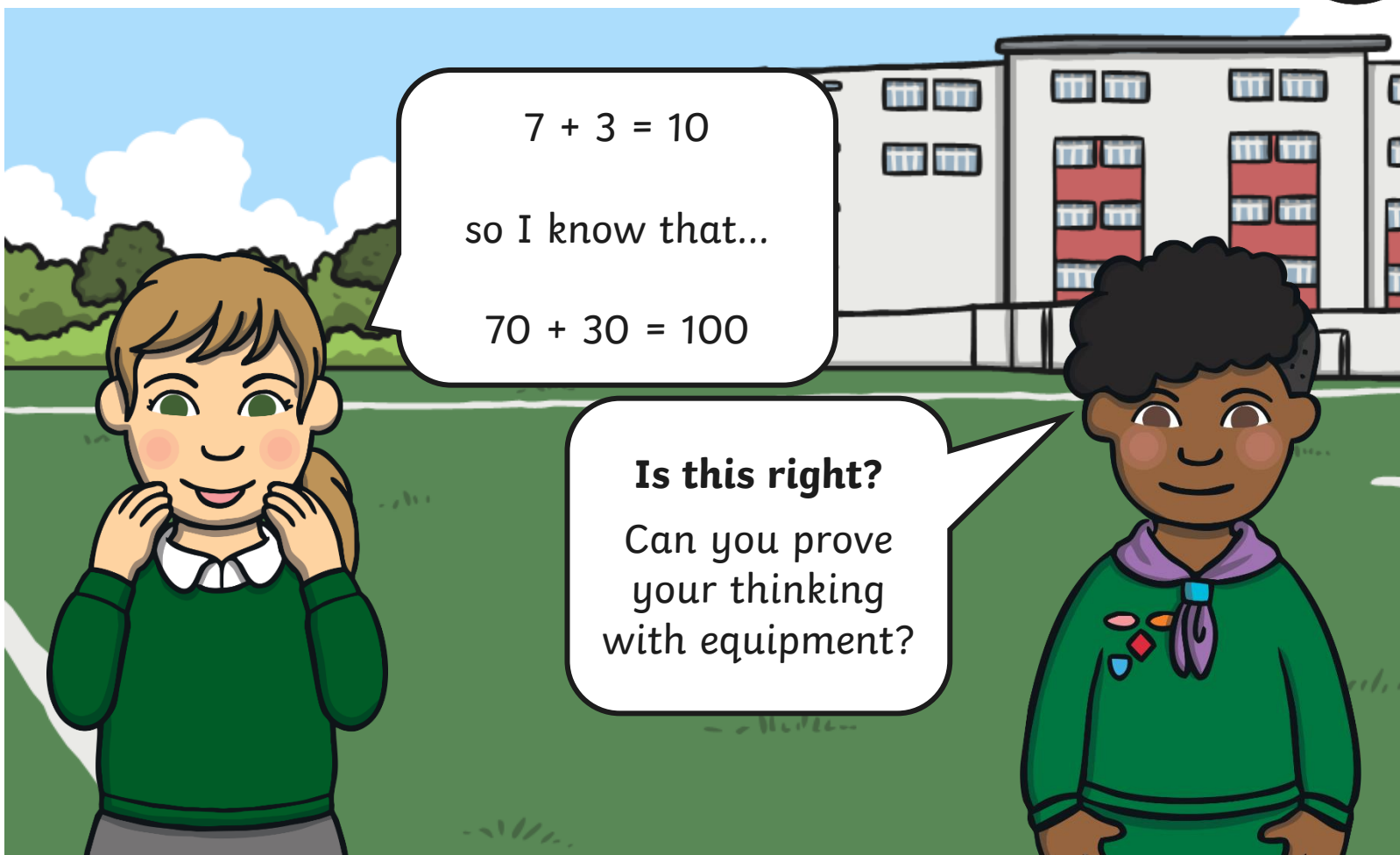
$$7 + 3 = 10$$

so I know that...

$$70 + 30 = 100$$

Is this right?

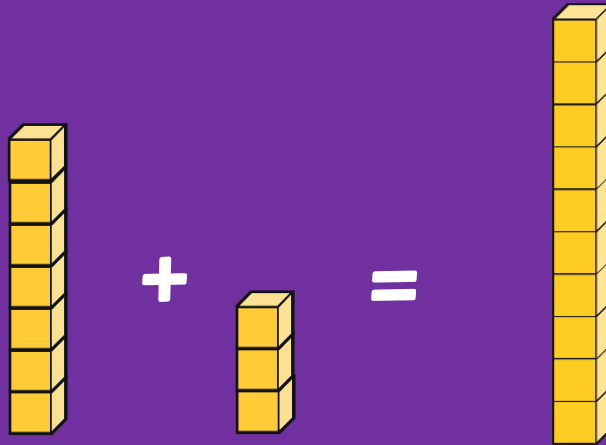
Can you prove
your thinking
with equipment?



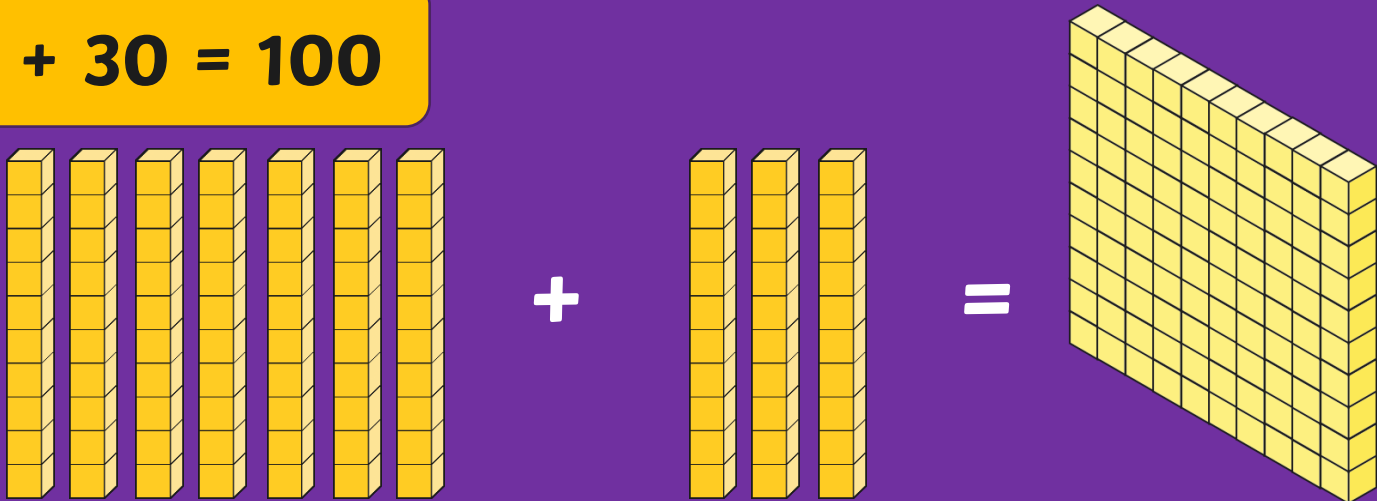
Number Bonds



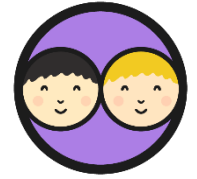
$$7 + 3 = 10$$



$$70 + 30 = 100$$

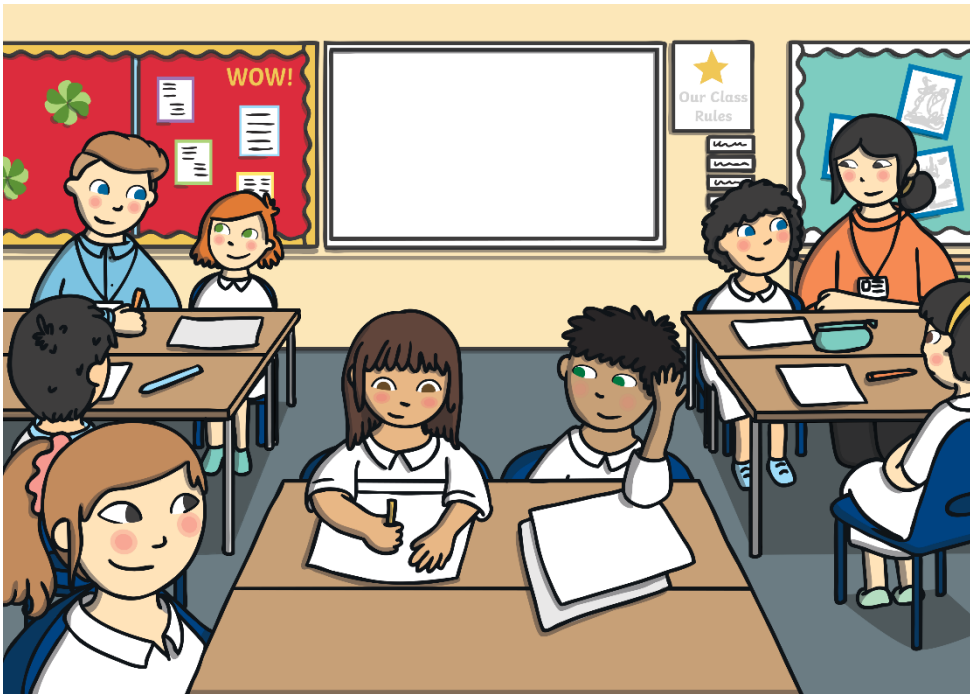


Make One Hundred



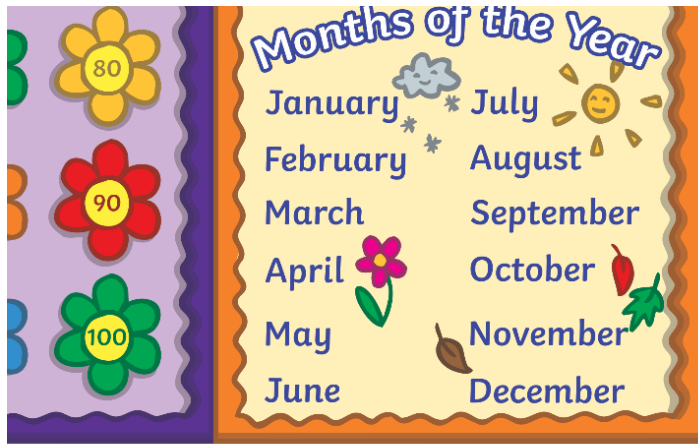
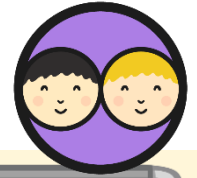
Explore number bonds of 10 with your partner and make a similar bond of 100.

What do you notice?



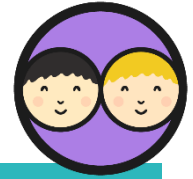
Start with 100 and hide some tens. Can your partner say how many have been hidden?

Make One Hundred



What do you notice?

Shopping



Shopping Game

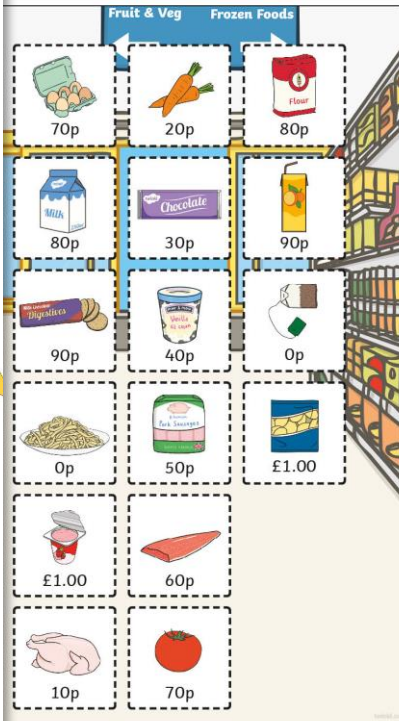
To derive and use addition and subtraction facts of 100 (multiples of 10).

Instructions

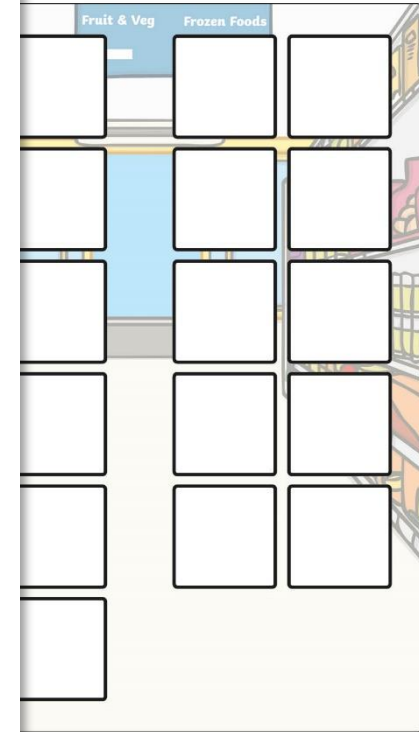
- This is a pairs game. Turn all the cards face down.
- Player One turns two cards over. If you make £1, you keep them. If not, turn them back and Player Two has a turn.
- When a player finds a pair that match, they must 'prove it' using coins or jumps on a number line.
- The player who ends with the most pairs is the winner.



Shopping Game



Shopping Game



Diving into Mastery

Dive in by completing your own activity!

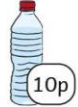









Number Facts of 100

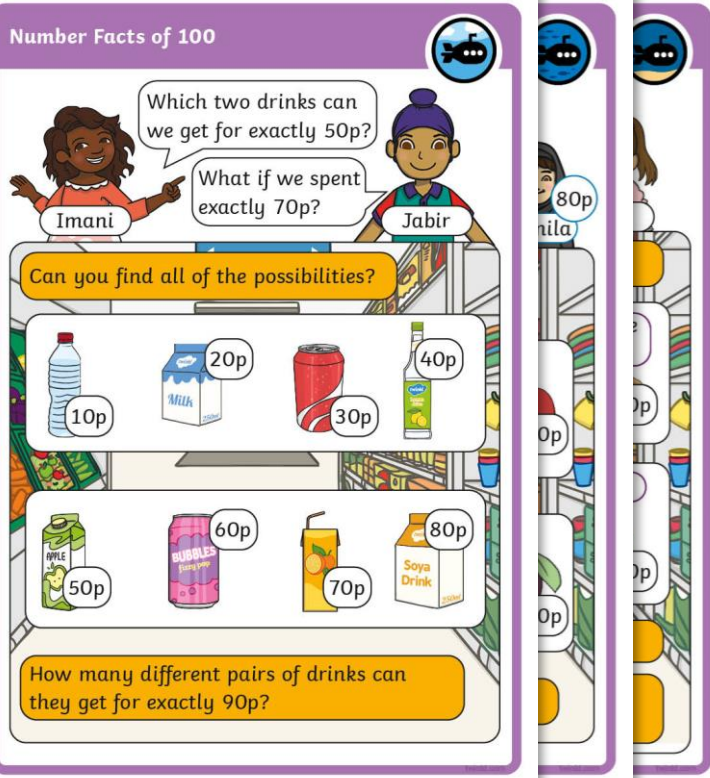
Which two drinks can we get for exactly 50p?
What if we spent exactly 70p?

Imani Jabir

Can you find all of the possibilities?

 10p	 20p	 30p	 40p
 50p	 60p	 70p	 80p

How many different pairs of drinks can they get for exactly 90p?



Reasoning



Hari asks the question:



If I start with 100 and subtract a multiple of 10, will my answer always be a multiple of 10?

Can you answer his question?

Can you give a reason for your thinking?

Reasoning



If I add 5 to any number with 5 ones, I will always make the next ten.



$$55 + 5 = 60$$

$$75 + 5 = 80$$

$$15 + 5 = 20$$

Do you agree?

Can you think of any more numbers that fit the pattern?

Aim



- To derive and use addition and subtraction facts of 100 (multiples of 10).

Success Criteria

- I can derive addition and subtraction facts of 100 (multiples of 10).
- I can use these addition and subtraction facts in a context.

