



# 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 the resources are presented.

**Mathematical Statements (1):** Introducing the Equals Symbol  
This engaging lesson introduces children to the equals symbol. Children use the equals symbol between representations of the same value. Children use different strategies for adding and subtracting numbers, including counting on and counting back, bridging ten and finding the difference. They will apply these skills to problem-solving and reasoning challenges. Children will use different concrete resources and representations to help deepen their understanding. They will learn to explain their learning as they investigate challenges.

**NC Statement:** Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.  
**Lesson Aim:** To use the equals symbol.

**Add and Subtract Numbers (1):** Make Numbers up to 10 from 2 Parts  
This delightful yet themed lesson introduces children to part-whole models and are taught how to use part-whole models to represent their dice rolls all of the possibilities. They look for patterns and use these to make predictions, presentations, differentiated activities and mastery challenges to help them understand.

**NC Statement:** Represent and use number bonds and related subtraction facts within 20.  
**Lesson Aim:** To make numbers to 10 from 2 parts.

**Mathematical Statements (2):** Introducing the Addition Symbol  
This helpful lesson introduces children to the addition symbol. Children learn addition with pictures, number stories and addition sentences. The lesson is differentiated activities and mastery challenges to help children develop fluency. This is the second of a set of four lessons teaching children to read and write.

**NC Statement:** Represent and use number bonds and related subtraction facts within 20.  
**Lesson Aim:** To use the addition symbol.

**Introduction**

In this unit, children will begin to use symbols in written number sentences and will use a variety of vocabulary around these. They will explore number facts to 20 and will find different ways to represent them. Children will reason about the number facts and will apply these to solve problems in different contexts. They will learn different strategies for adding and subtracting numbers, including counting on and counting back, bridging ten and finding the difference. They will apply these skills to problem-solving and reasoning challenges. Children will use different concrete resources and representations to help deepen their understanding. They will learn to explain their learning as they investigate challenges.

**Assessment Statements**

By the end of this unit, children working towards the expected level will be able to:

- recognise the signs +, - and = and explain their meaning;
- recall and represent number facts within five and some higher facts;
- add and subtract numbers within ten by combining and partitioning practically;
- use pictures, equipment and numbers to represent addition and subtraction stories;
- provide simple explanations of mathematical concepts;
- add and subtract zero.

children working at the expected level will be able to:

- read, write and understand calculations involving addition (+), subtraction (-) and equals (=) signs;
- recall number facts to ten and related facts, using these to derive number facts to 20, including zero;
- add and subtract one-digit and two-digit numbers, including zero;
- solve one-step problems in familiar contexts involving addition and subtraction, using pictures and models;
- use number facts to solve missing number problems.

**Addition and Subtraction**  
Maths | Year 1 | 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. Wherever possible, lesson packs have been matched to each of the small steps on the White Rose Maths scheme of learning.

**Yearly Overview**

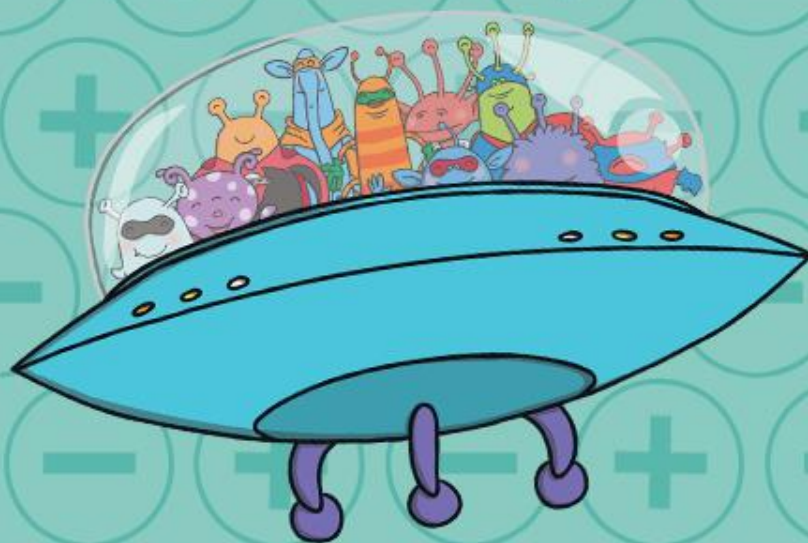
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn				Number: Addition and Subtraction (within 10)			Geometry: Shape		Number: Place Value (within 20)			Consolidation
Spring		Number: Addition and Subtraction (within 20)			Number: Place Value (within 50) (Multiples of 2, 5 and 10 to be included)		Measurement: Length and Height		Measurement: Weight and Volume			Consolidation
Summer	Number: Multiplication and Division (Multiples of 2, 5 and 10 to be included)		Number: Fractions		Geometry: Position and Direction		Number: Place Value (within 100)	Measurement: Money		Time		Consolidation

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

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



# Find and Recall Number Bonds of 10



# Aim

- To find and recall number bonds of 10.

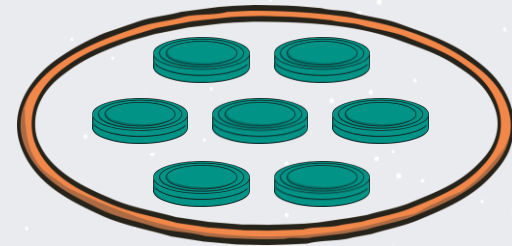
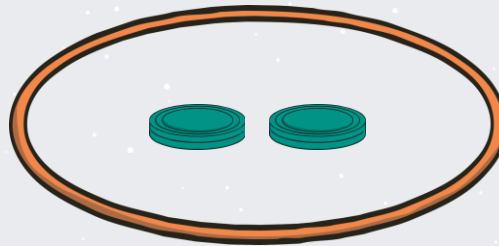
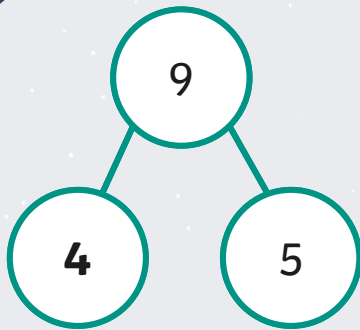
# Success Criteria

- I can find number bonds of 10 by adding two numbers.
- I can recall number bonds of 10.
- I can work systematically to find all possibilities.

# Remember It

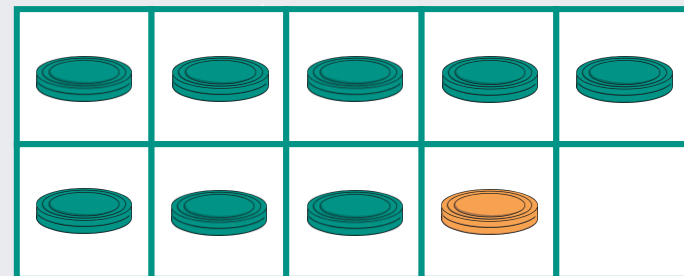


Recall number bonds of 9 to find the missing numbers.



$$9 = \boxed{0} + 9$$

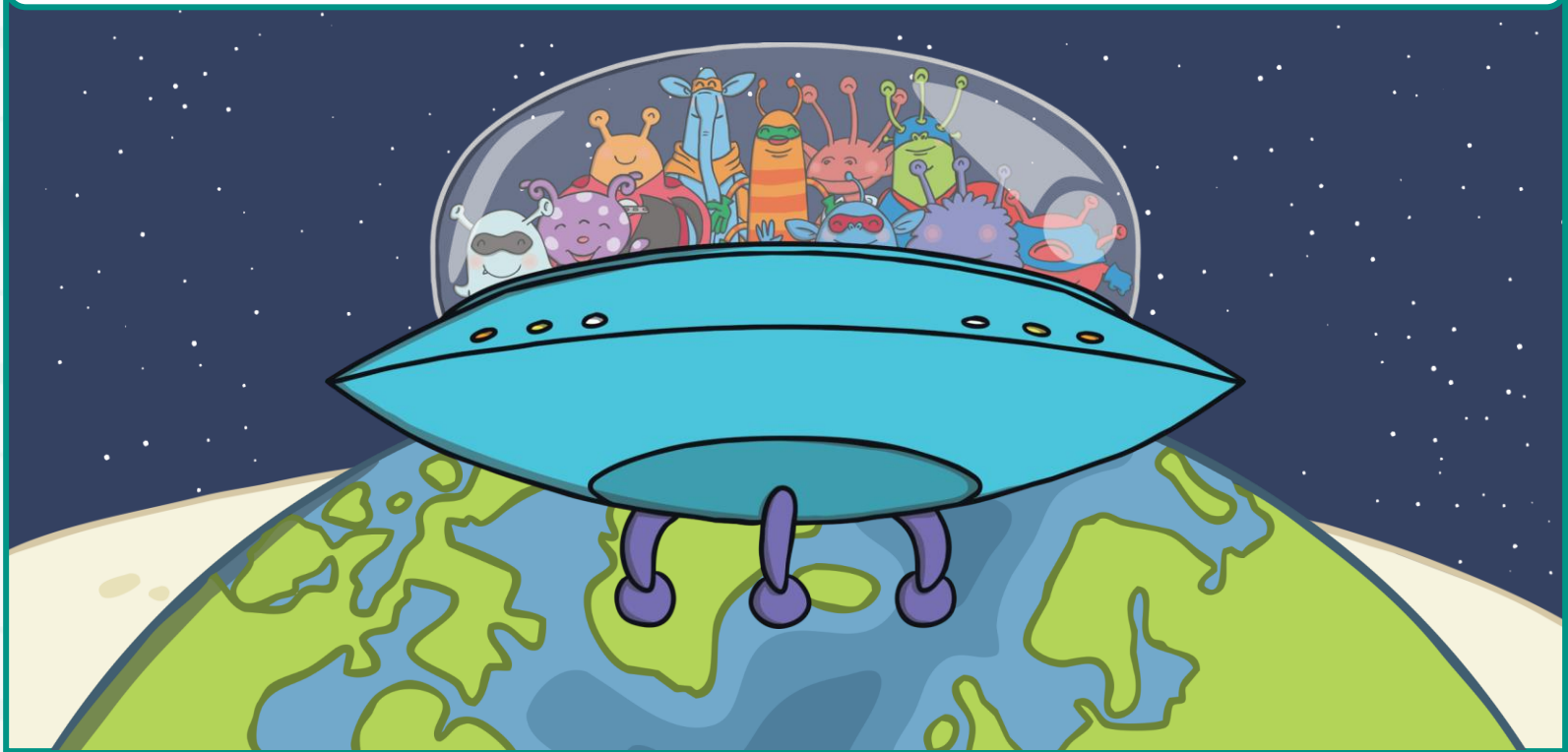
9	
6	3



# Alien Visit



How many like the sights so decide to stay  
and how many fly away again?



# Alien Visit



$$10 + 0 = 10$$

10

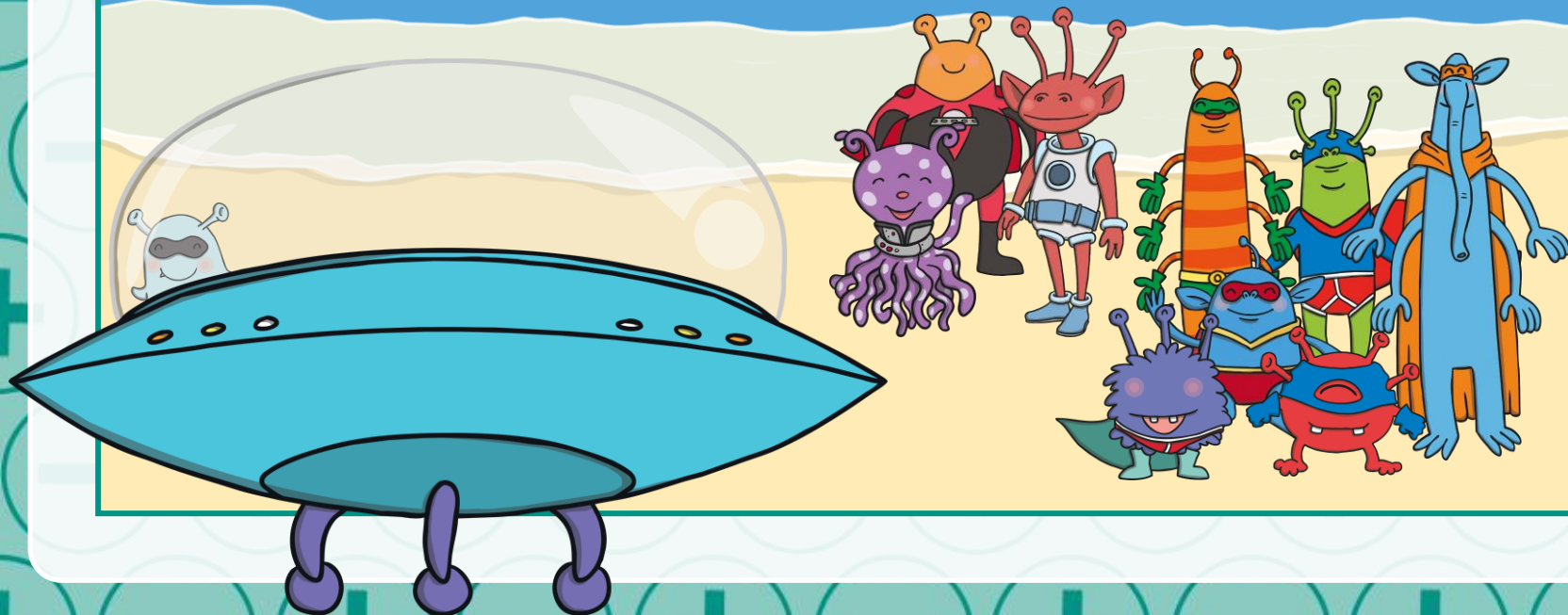


# Alien Visit



$$9 + 1 = 10$$

9



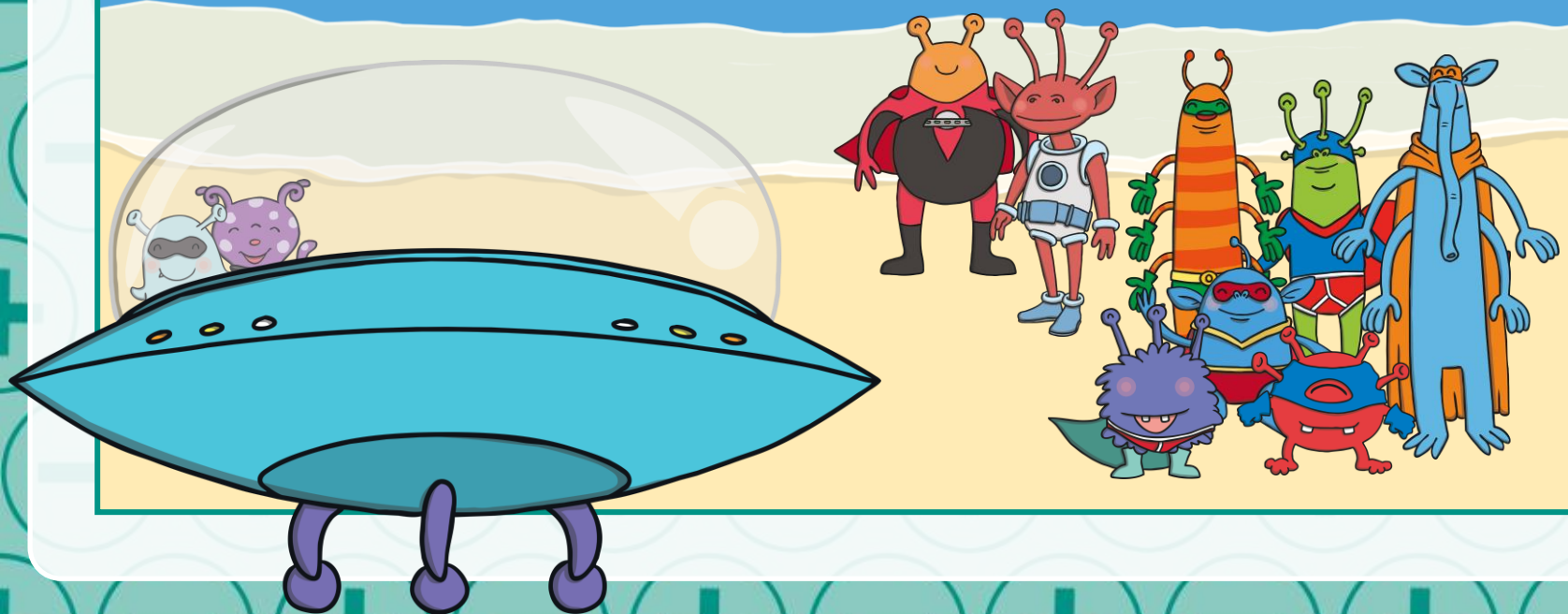


# Alien Visit



$$8 + 2 = 10$$

8

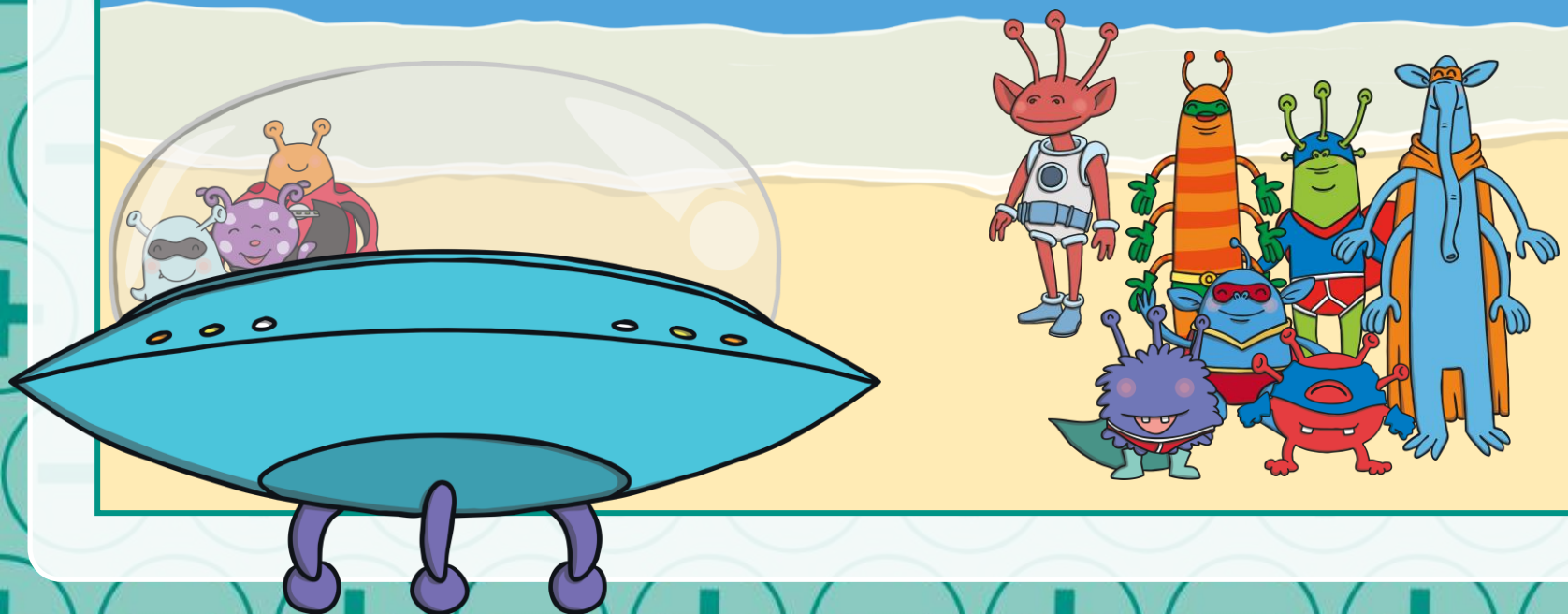


# Alien Visit



$$7 + 3 = 10$$

7

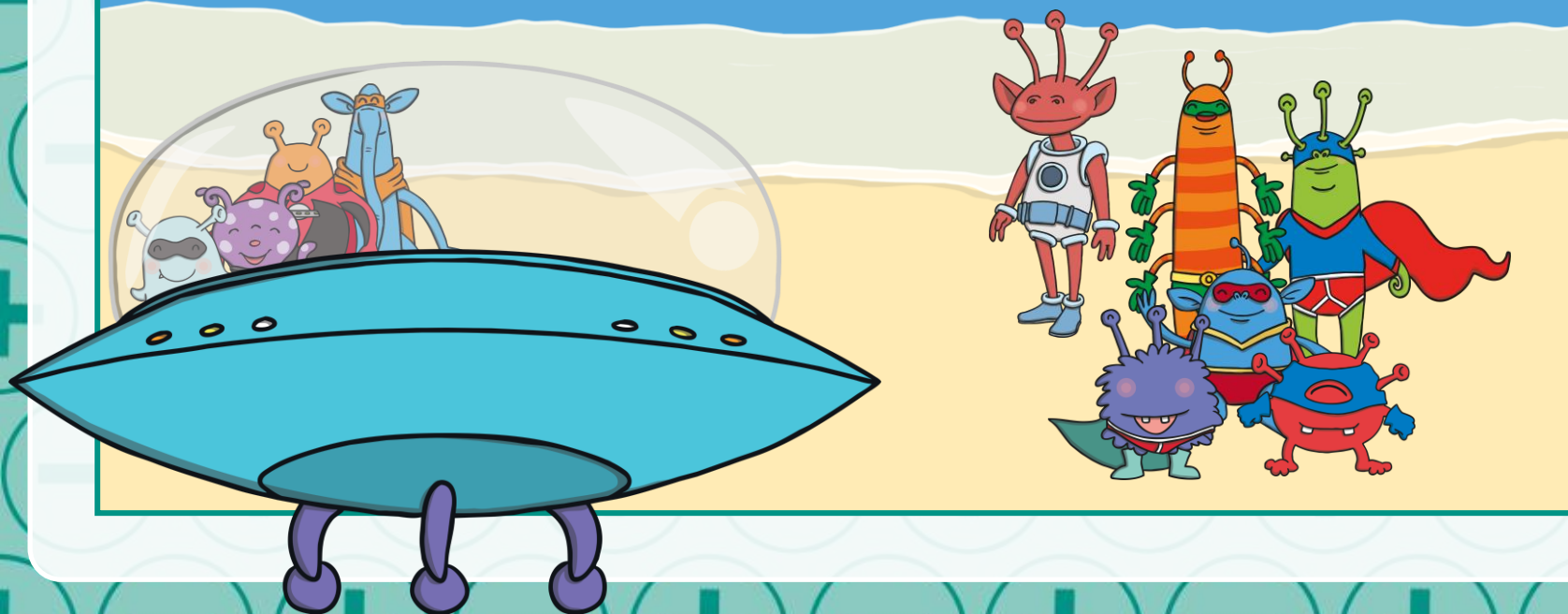


# Alien Visit



$$6 + 4 = 10$$

6

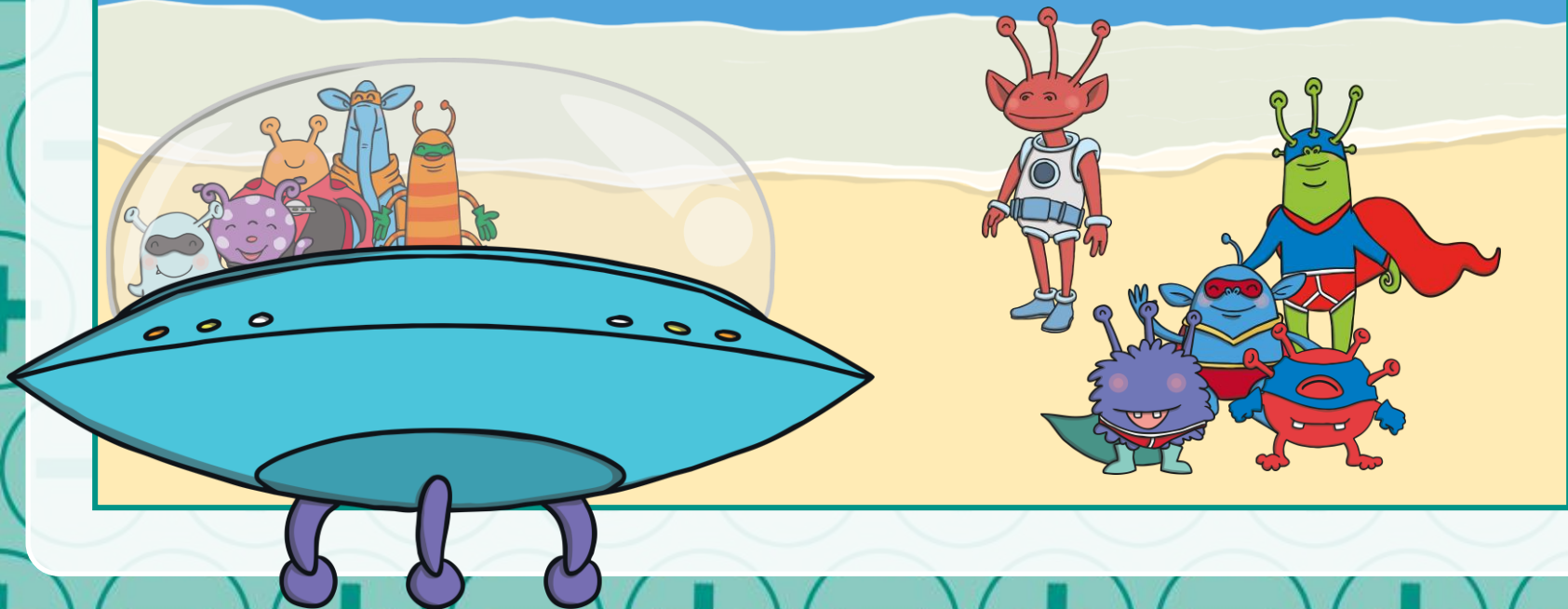


# Alien Visit



$$5 + 5 = 10$$

5

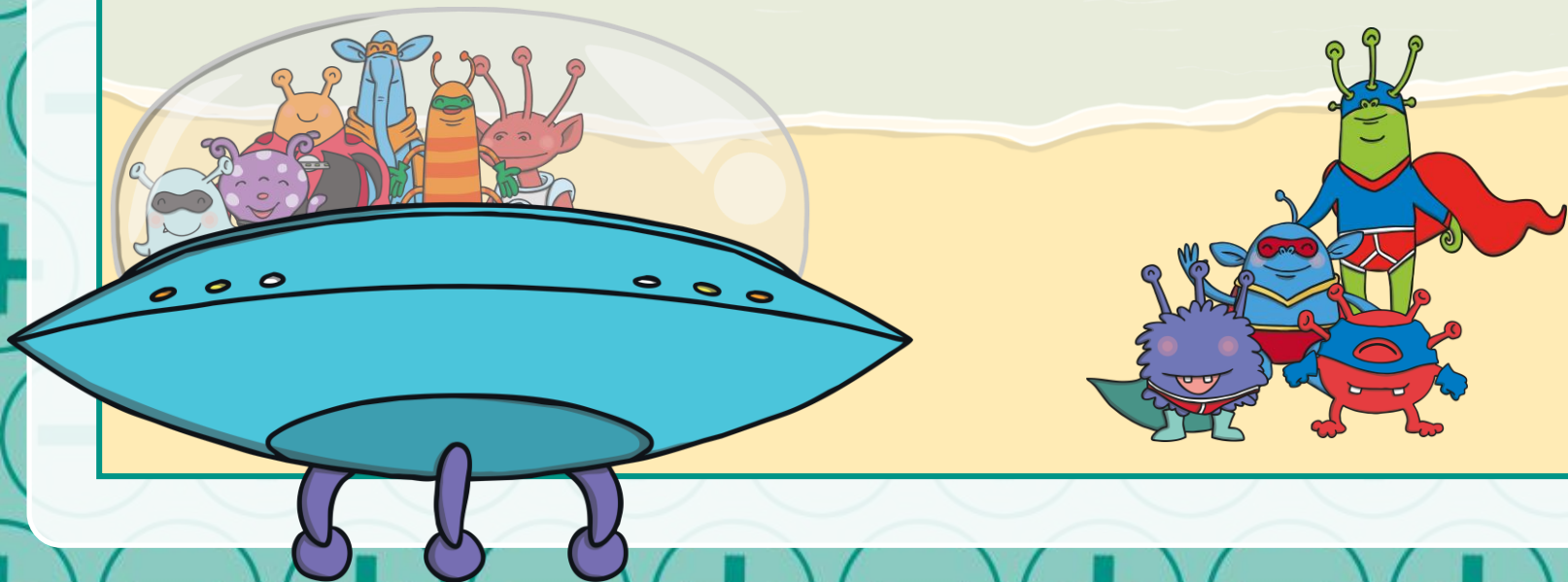


# Alien Visit



$$4 + 6 = 10$$

4

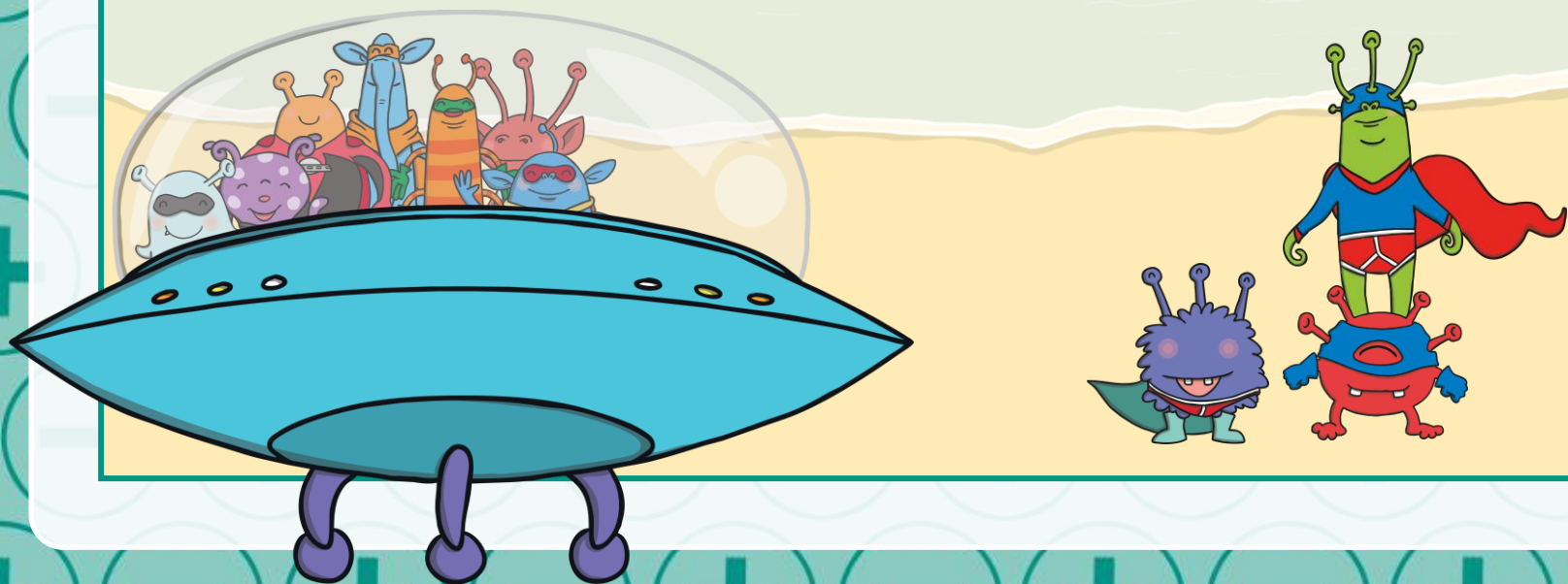


# Alien Visit



$$3 + 7 = 10$$

3

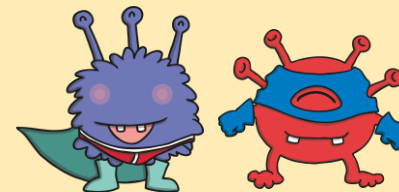
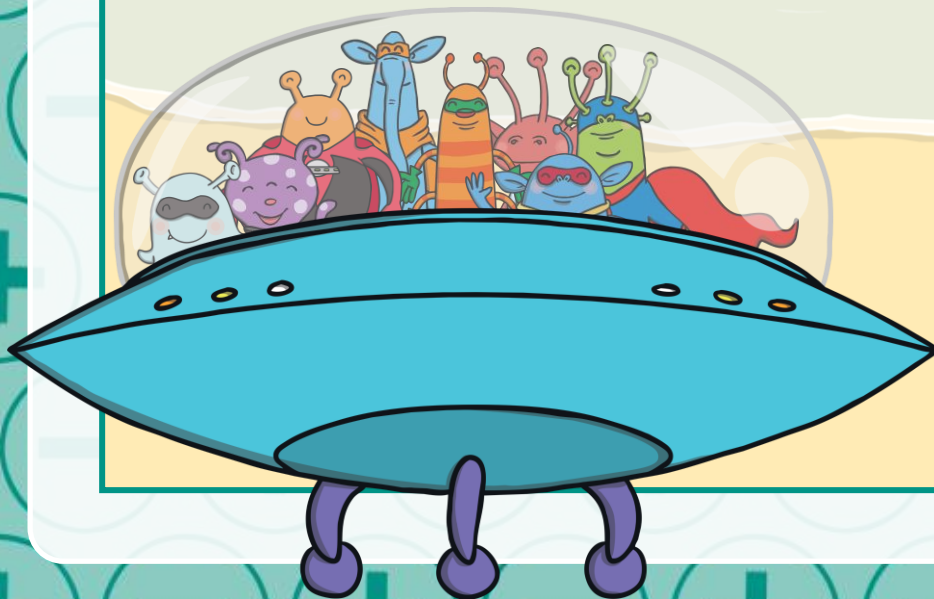


# Alien Visit



$$2 + 8 = 10$$

2

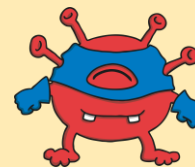
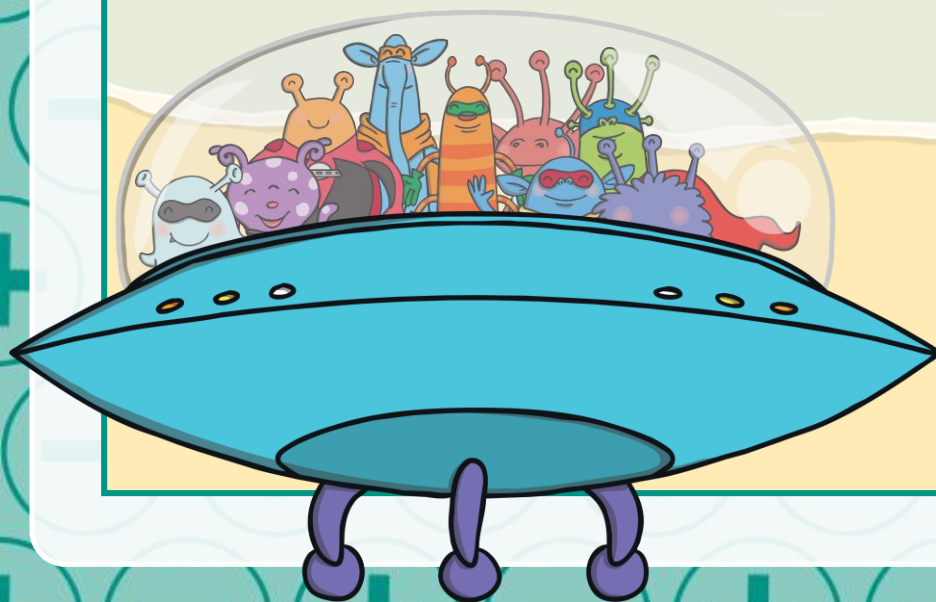


# Alien Visit



$$1 + 9 = 10$$

1



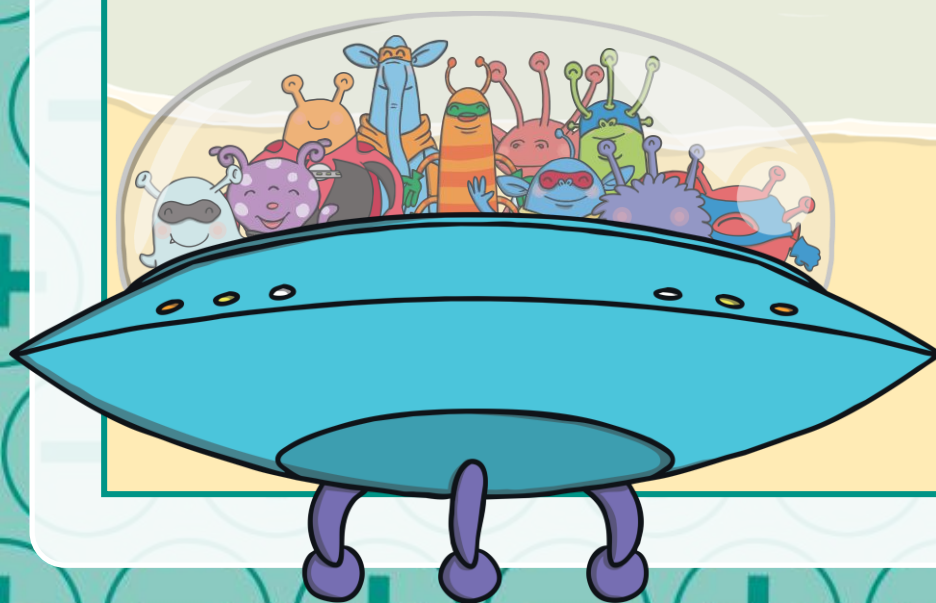


# Alien Visit



$$0 + 10 = 10$$

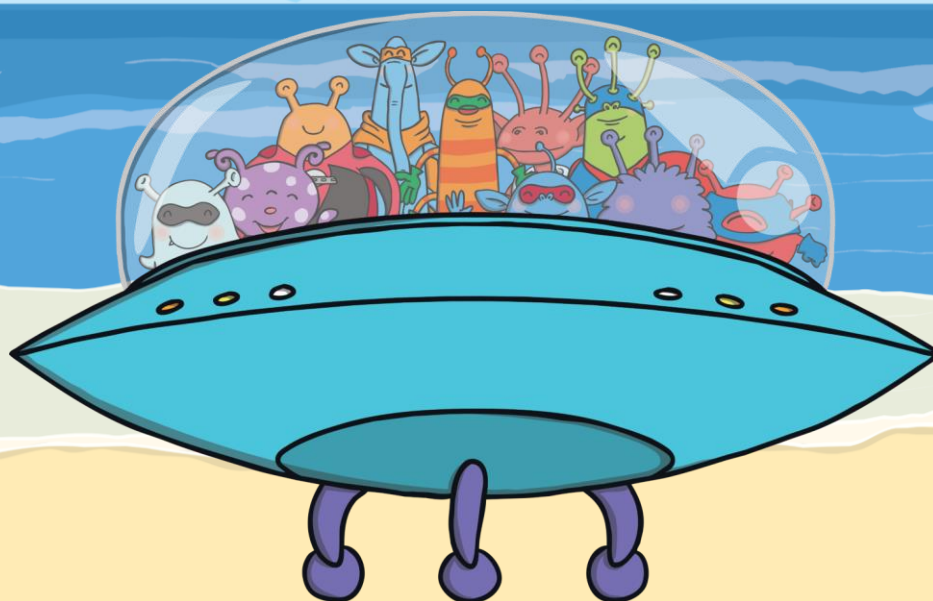
0



# Alien Visit



All the aliens have decided to fly away!



Blast off!

# Number Bonds of 10



$$0 + 10 = 10$$

$$1 + 9 = 10$$

$$2 + 8 = 10$$

$$3 + 7 = 10$$

$$4 + 6 = 10$$

$$5 + 5 = 10$$

$$6 + 4 = 10$$

$$7 + 3 = 10$$

$$8 + 2 = 10$$

$$9 + 1 = 10$$

$$10 + 0 = 10$$



Can you see a pattern?

Are they all different?

Explain your answers.

# Alien Puzzles



Zog collects 10 green lightbulbs. He swaps 3 for pink lightbulbs.  
How many green lightbulbs does he still have?

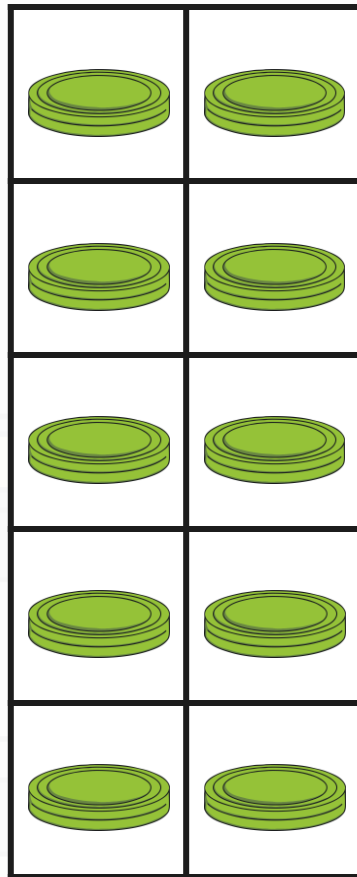


Use your ten-frame to show how you know the answer.

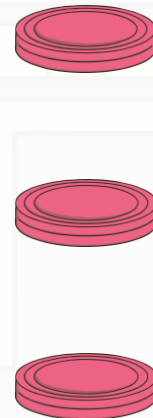
# Alien Puzzles



He still has 7 green lightbulbs.



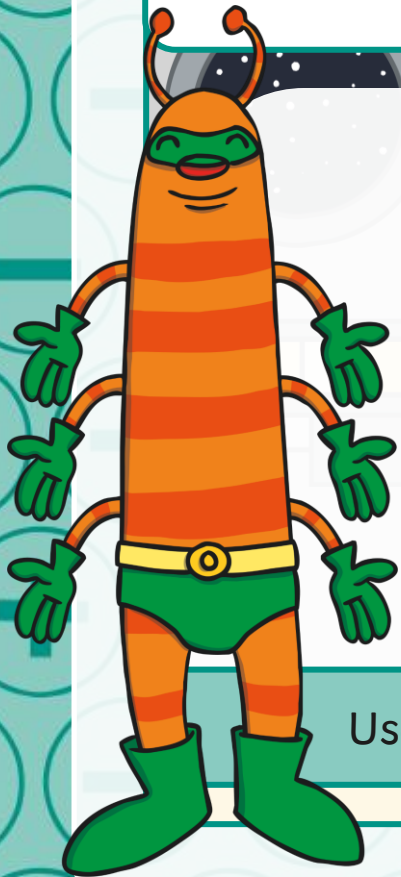
$$10 = 7 + 3$$



# Alien Puzzles



Zag collects 10 tin cans. He keeps 5 and gives some to Zig.  
How many does Zag give to Zig?



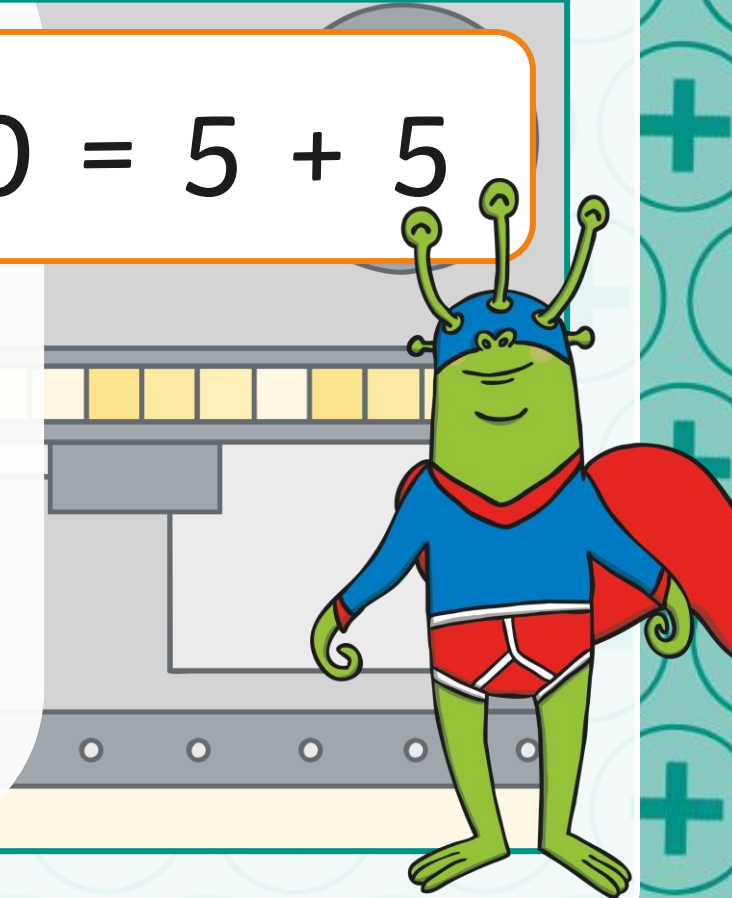
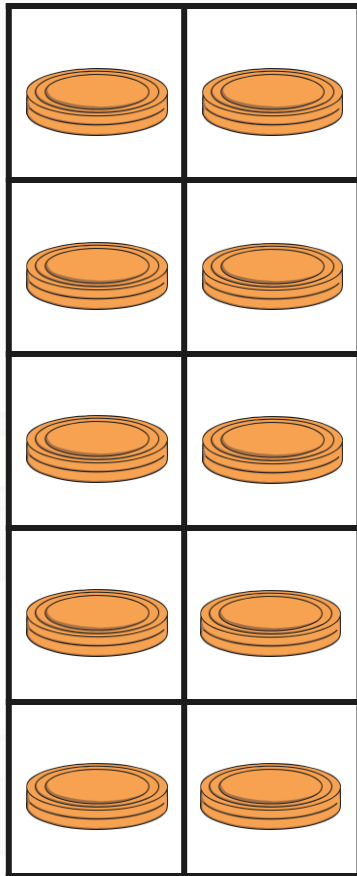
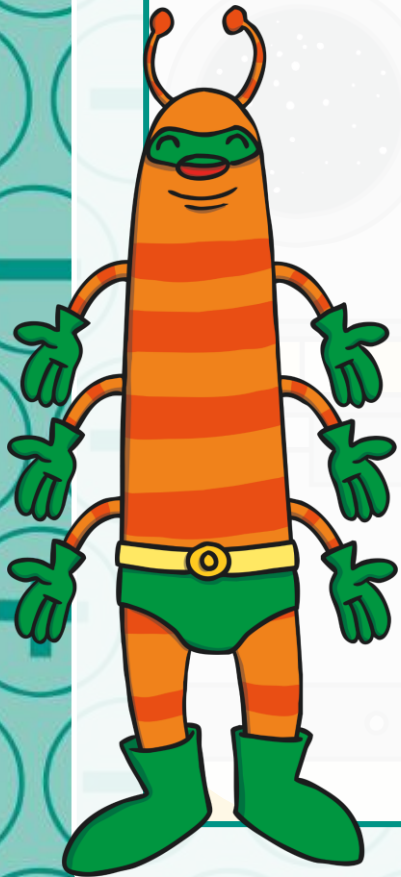
Use your ten-frame to show how you know the answer.

# Alien Puzzles



Zag gives Zig 5 tin cans.

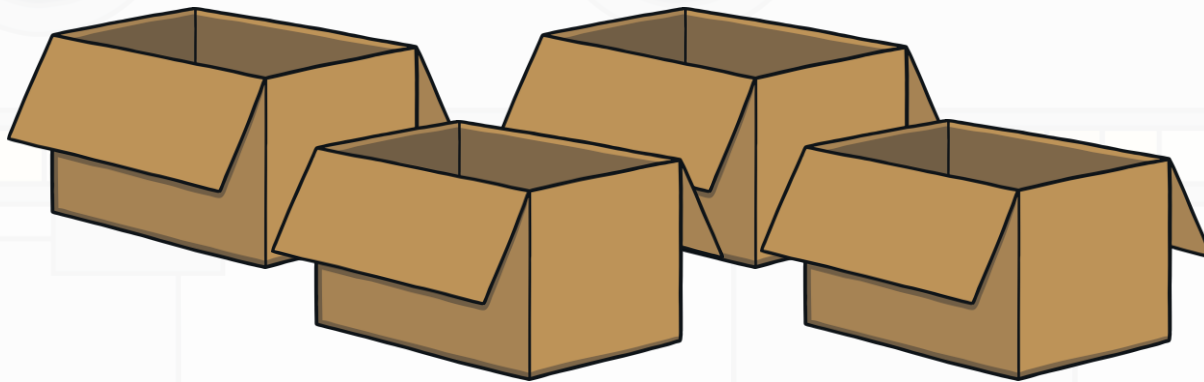
$$10 = 5 + 5$$



# Alien Puzzles



Zig can fit 10 boxes in the spaceship. He has 4.  
How many more can he get?



Use your ten-frame to show how you know the answer.

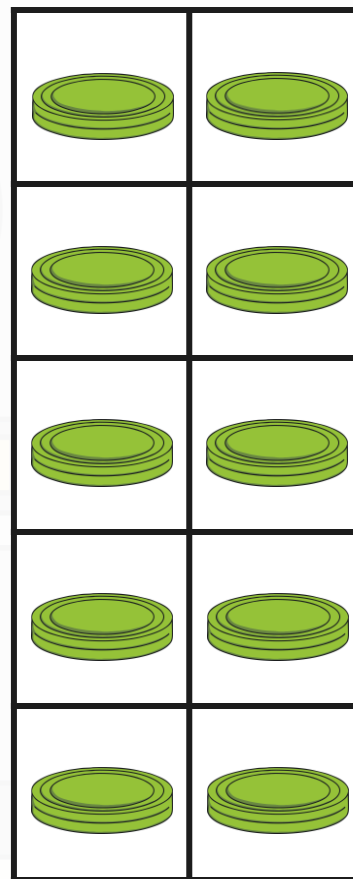
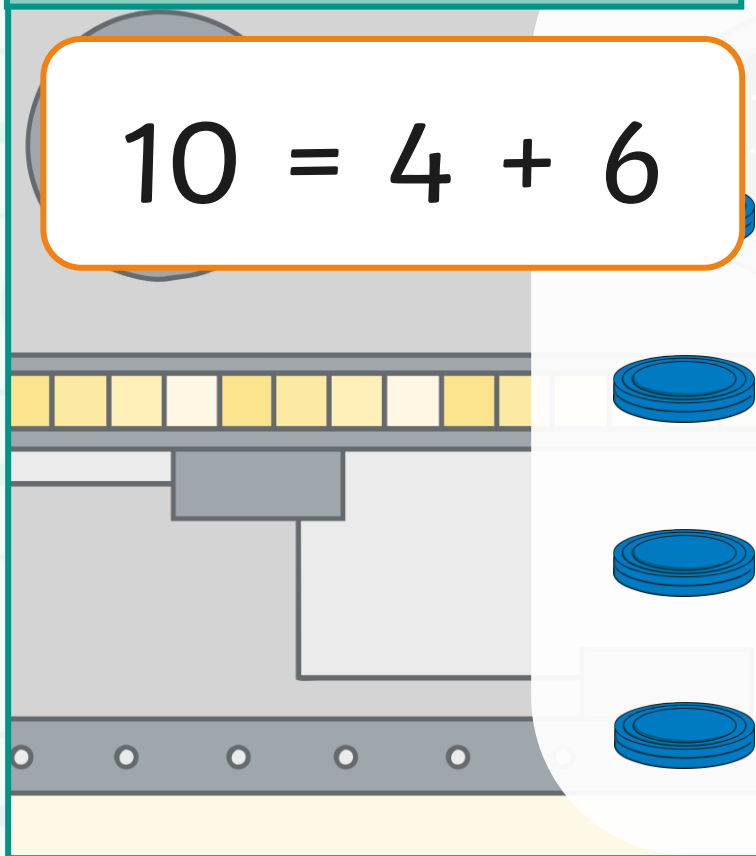


# Alien Puzzles



Zig can get 6 more boxes.

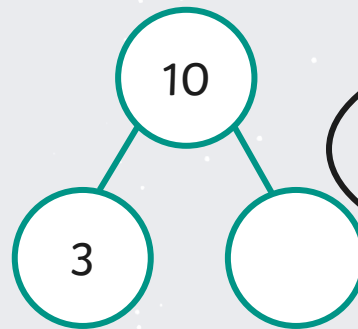
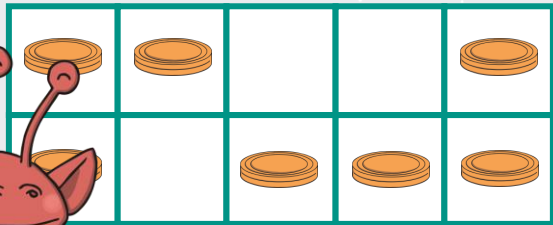
$$10 = 4 + 6$$



# Alien Tricks



Zig, Zag and Zog are playing 'Odd One Out'.  
They have made 10 in different ways.



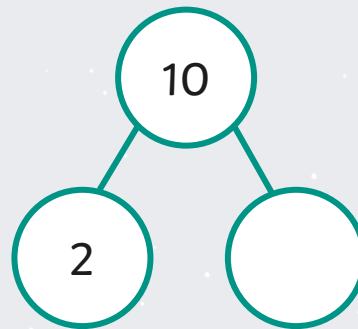
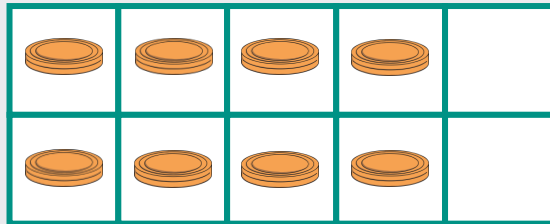
Can you spot the odd one out?



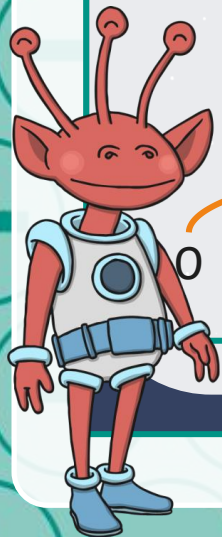
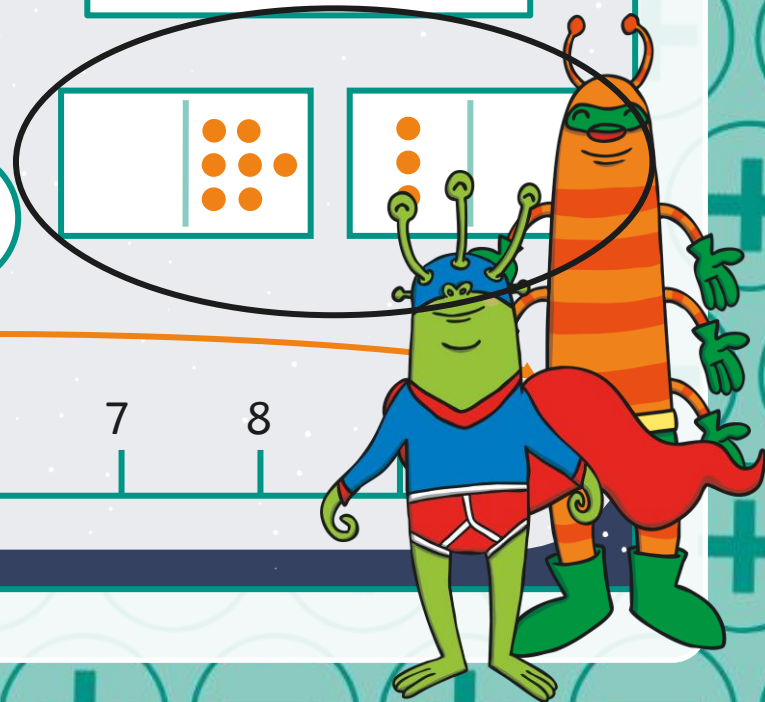
# Alien Tricks



Zig, Zag and Zog are playing 'Odd One Out'.  
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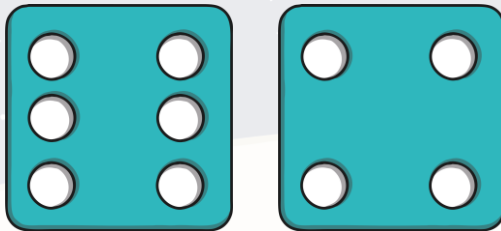
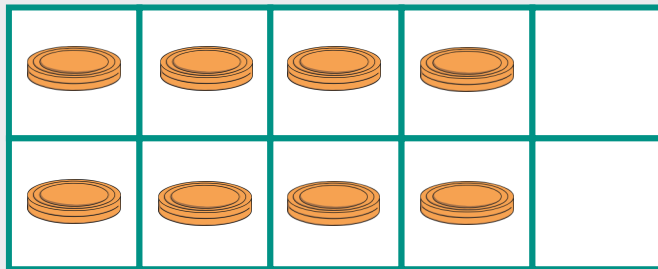
$$10 = \square + 8$$



# Alien Antics



Find the matching pairs of number bonds.  
You might need to fill in some missing information  
before you can make a pair.



The worksheet pages contain the following content:

- Page 1:** A number line from 0 to 6 with the equation  $10 = 8 + 2$  below it. A row of 8 orange dots is shown, with 2 dots circled. Below the number line is a pair of hands.
- Page 2:** A number line from 0 to 6 with the equation  $10 = \square + \square$  below it. A row of 8 orange dots is shown, with 2 dots circled. Below the number line is a pair of dice showing 3 and 4.
- Page 3:** Titled "Alien Antics". It contains instructions: "To find and recall number bonds of 10." and "Cut out and match pairs of number bonds. Fill in any missing information. Draw a representation for any number bonds that don't have a partner and write an extra representation to go with each pair." It includes:
  - A number line from 0 to 10 with the equation  $10 = \square + 0$  below it.
  - A number bond diagram for 10, split into 9 and 1.
  - A number line from 0 to 10 with the equation  $10 = \square + 0$  below it.
  - A question: "Harry has 10p and he buys a sweet for 2p. How much money does he still have?"
  - A number line from 0 to 10 with a blue dot at 8 and a yellow dot at 10.
  - A number bond diagram for 10, split into 6 and 4.
  - The equation  $10 + 0 = 10$ .
  - A grid of 10 orange dots.

## Diving into Mastery



Dive in by completing your own activity!



### Find and Recall Number Bonds of 10



Using counters of two colours, find all the different ways of filling the ten-frame.


How many different ways can you find?

Record the ways with calculations.



10.

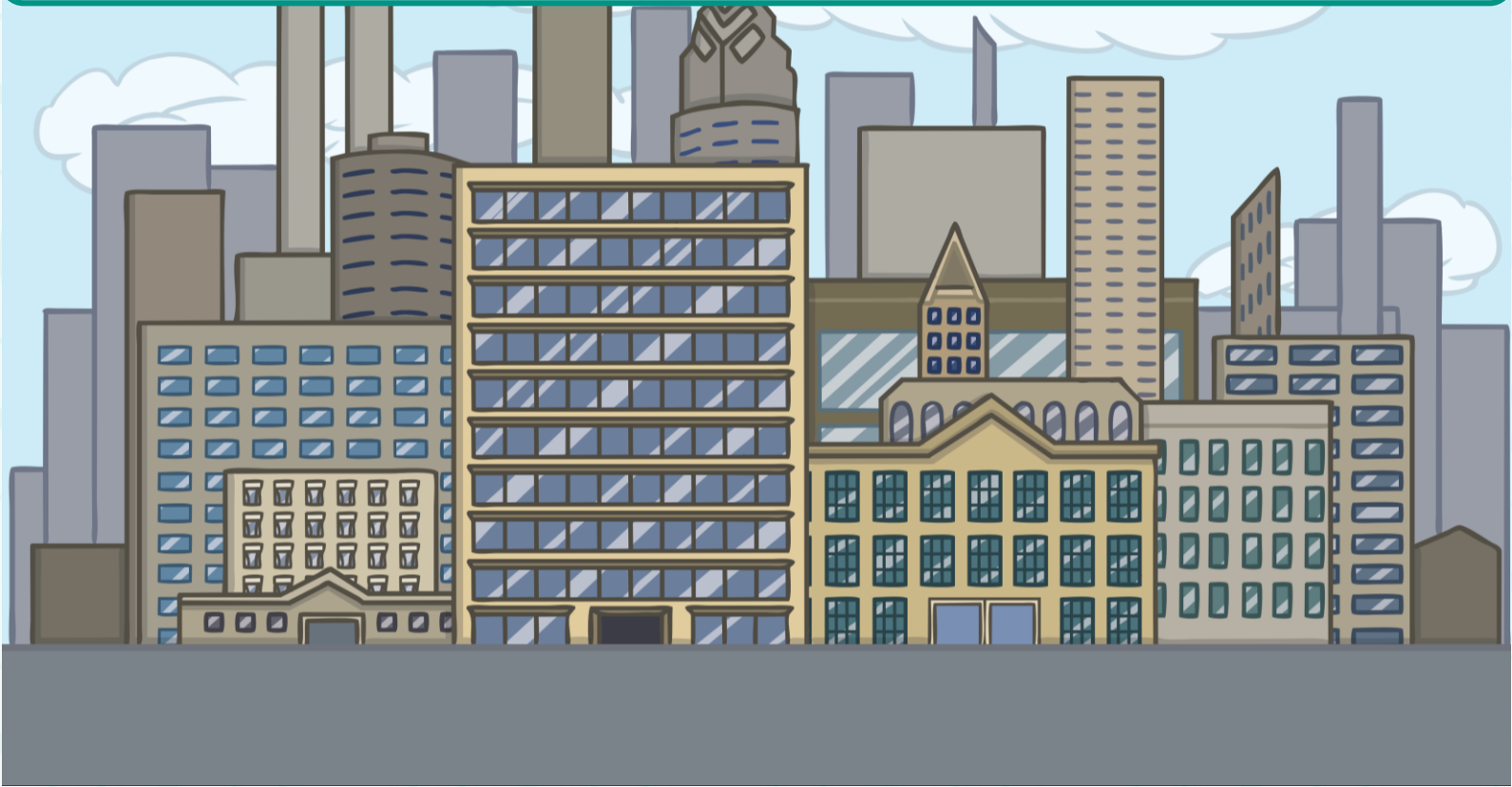
2.

10

# Sightseeing



The aliens are looking at the sights. Can you solve their puzzles?

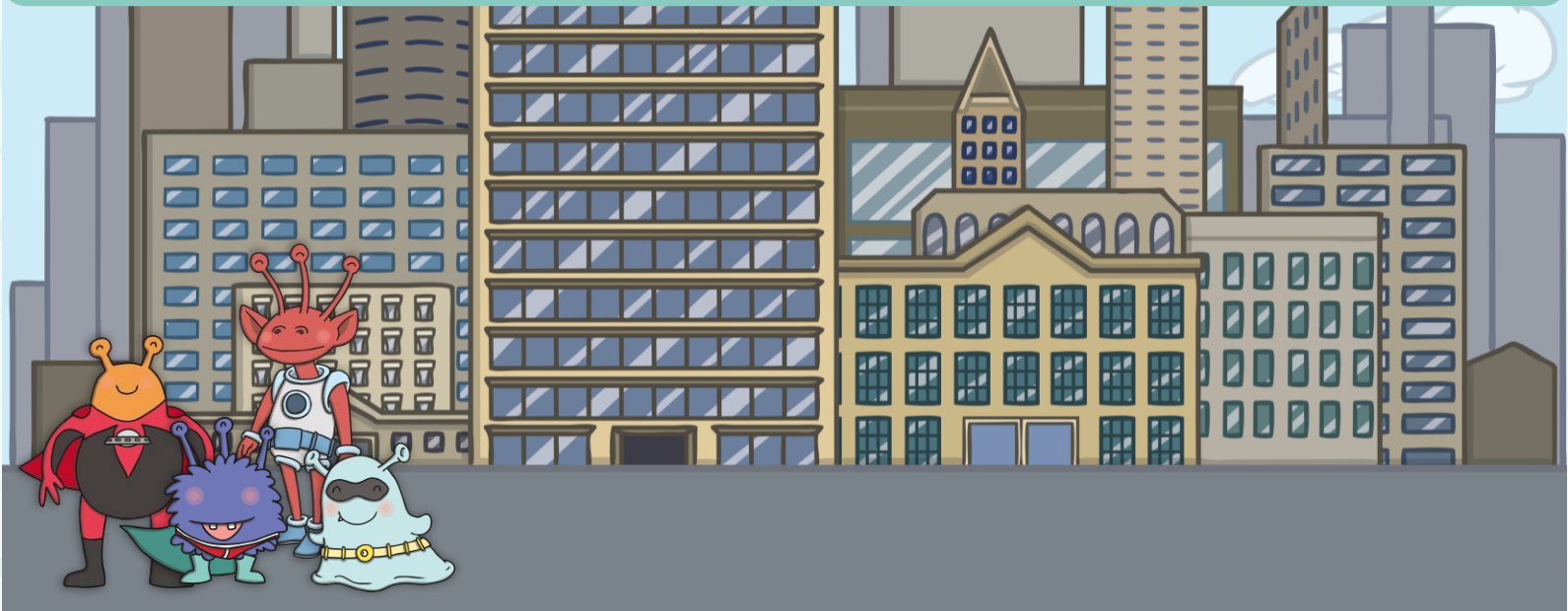


# Sightseeing



There are 10 seats on the bus. How many aliens are on the bus?  
How many more can go on?

$$6 + 4 = 10$$

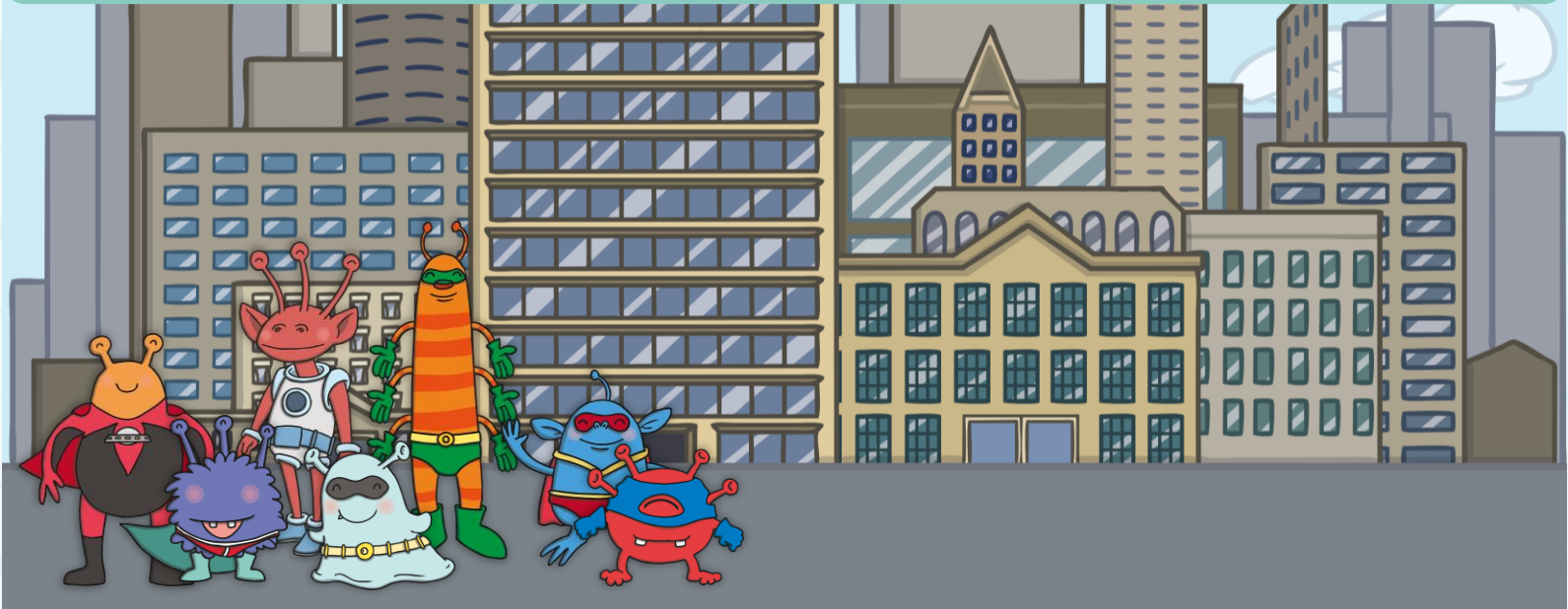


# Sightseeing



There are 10 aliens altogether. How many aliens can you see?  
How many friends are they waiting for?

$$10 = 7 + 3$$



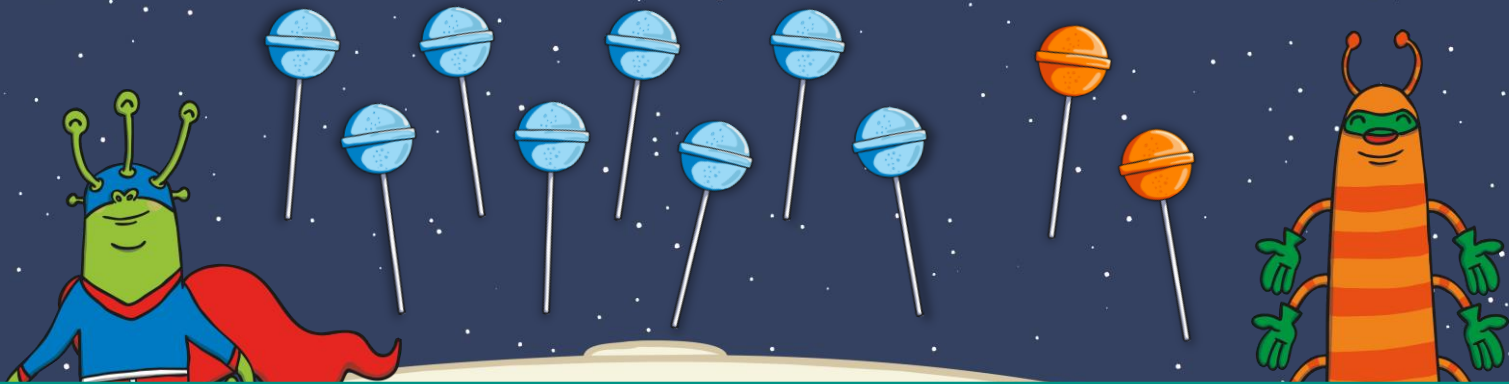


# Sightseeing



Zig bought 8 lollipops in one shop and 2 in another. He says:

$$8 + 2 = 2 + 8$$



Zag says this is wrong.

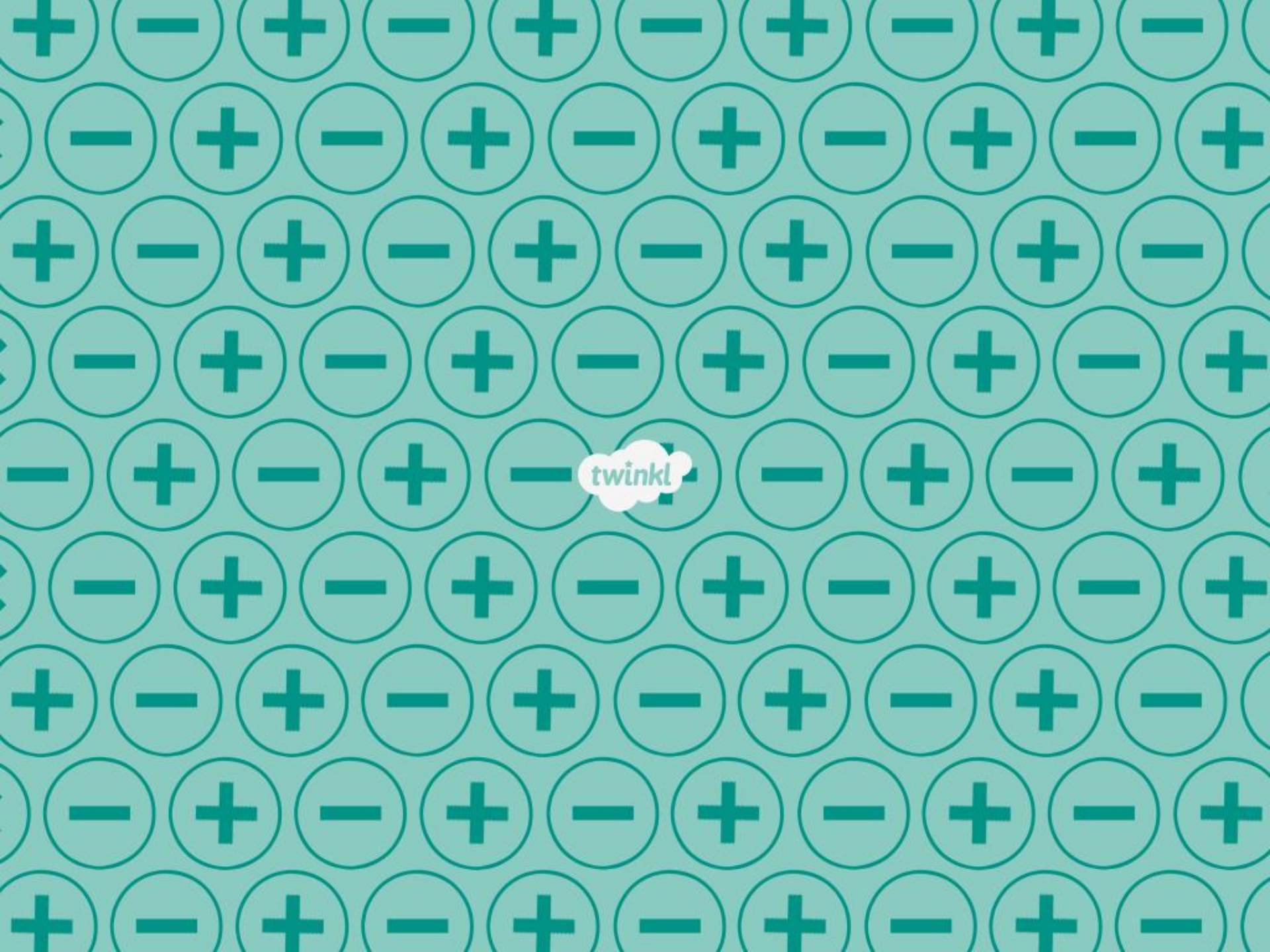
What do you think? Use your ten-frame to help you.

# Aim

- To find and recall number bonds of 10.

# Success Criteria

- I can find number bonds of 10 by adding two numbers.
- I can recall number bonds of 10.
- I can work systematically to find all possibilities.



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