

Summer Block 3

Position and direction

Small steps

Step 1

Describe turns

Step 2

Describe position – left and right

Step 3

Describe position – forwards and backwards

Step 4

Describe position – above and below

Step 5

Ordinal numbers

Describe turns

Notes and guidance

In this small step, children use the terms “full”, “half”, “quarter” and “three-quarter” to describe turns. They will be familiar with “half” and “quarter” from the previous block on fractions, but “three-quarter” will be a new concept to them.

Children should be given lots of opportunities to practically turn objects as well as experience the motion of turns themselves. Giving them opportunities to play games and follow simple instructions will support this.

Children should be able to identify the size of a turn by looking at the starting and finishing position of a shape as well as drawing the result of a turn. This provides a useful opportunity to revisit learning on 2-D and 3-D shapes.

Children should investigate whether they can end up facing the same direction if they complete different turns, but they do not need to describe the direction of turns at this stage.

Things to look out for

- Children may forget where they began the turn.
- Children may naturally always turn in one direction and should be encouraged to explore both ways.

Key questions

- What is a turn?
- How do you make a full turn?
- How do you make a half/quarter turn?
- If this is a quarter turn, what do you think a three-quarter turn is?
- Does it always matter which direction you turn?
- Can you get to the end position in more than one way?

Possible sentence stems

- This is a _____ turn.
- The _____ has turned a _____ turn.
- I have turned a _____ turn.
- A _____ turn is the same as ...

National Curriculum links

- Describe position, direction and movement, including whole, half, quarter and three-quarter turns

Describe turns

Key learning



Give children instructions using positional language, for example: “All turn a quarter turn.” Ask children if they have all turned the same way? Does it matter?

This could be developed as an everyday routine as the children line up.

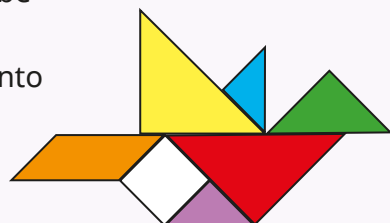
Children can then work in pairs to give and follow instructions.



Provide children with a selection of tangram shapes and encourage them to explore making different representations of pictures by moving and turning the shapes.

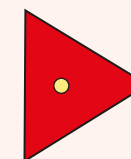
Ask children what animals they can make.

Challenge them to describe how they turn each tangram shape to put it into position in their animal.



Provide children with a range of pictures of 2-D shapes such as triangles, squares and rectangles.

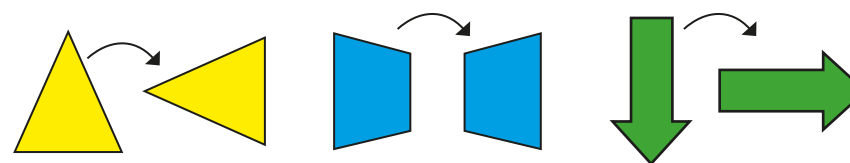
Use paper fasteners to attach the shapes to a piece of A3 paper and explore what they look like after different turns.



Explore full turns, asking what they notice about the start and end positions.

Discuss half, quarter and three-quarter turns and whether it matters which way they turn the shape.

- Match the shapes to the turns.



half turn

quarter turn

three-quarter turn

Describe turns

Reasoning and problem solving

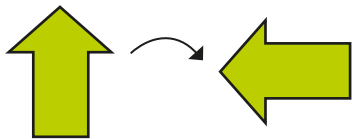
Here is an arrow.



I am going to turn it a quarter turn and then another quarter turn in the same direction.

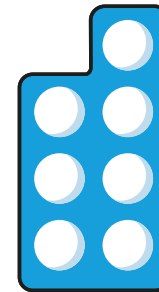
Describe Mo's turn in a different way.

Find two ways to describe the three-quarter turn the arrow makes.



- multiple possible answers, e.g.
- a quarter turn in the other direction
- a half turn and a quarter turn
- 3 quarter turns

Ann turns a number piece and it faces this way.



What direction could it have faced at the start?

What turn could it have made?

How many answers can you find?

Draw your answers.

Describe the turn for each one.



- possible answers:
- a half turn
 - a quarter turn (both directions)
 - a three-quarter turn (both directions)
 - a whole turn



Describe position – left and right

Notes and guidance

In this small step, children are introduced to the terms “left” and “right” for the first time, although they may have experienced this language outside of the classroom before.

Children often confuse the two directions, so look for ways to support children in remembering them, such as rhymes, the “L” shape shown between the index finger and thumb on the left hand and perhaps what hand they use to write with. Explore the positional language of left and right by playing games and singing rhymes and songs. Asking children to follow simple instructions throughout the day is a great way to support this skill.

Children also explore describing the direction of movement as being to either the left or the right, then describing the position of one object in relation to another, for example “The _____ is to the left/right of the _____”.

Things to look out for

- Children may confuse left and right.
- Children may become confused when an object is looked at from a different perspective from their own. When you are facing someone, the position of their left hand does not appear to match yours.

Key questions

- Which is your left/right hand/foot?
- What do you notice when you hold up the thumb and index finger of your left hand?
- How can you get to the _____?
- How can you get from the _____ to the _____?
- Is the _____ to the left or right of the _____?
- Which shape(s) is/are to the left/right of the _____?

Possible sentence stems

- The _____ moves to the _____
- The _____ is to the left/right of the _____

National Curriculum links

- Describe position, direction and movement, including whole, half, quarter and three-quarter turns
- Use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside (non-statutory guidance)

Describe position – left and right

Key learning



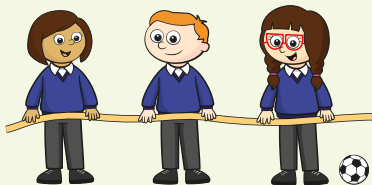
In a large space, as a class listen to, sing and act out songs and rhymes to reinforce the concept of left and right. Examples include *Cha-Cha Slide* by DJ Casper, *Dem Bones* by James Weldon Johnson and the *Hokey Cokey*, an English folk song.



Play human table football in the playground.

You need skipping ropes or pieces of long string and a football.

Position children so that they are lined up in rows of either three or four, all facing the same direction and holding the rope in their hands.



The rest of the class give players instructions to try to get the football into the goal. The players can only move when given an instruction, for example “Row 2, move three steps to the left.”

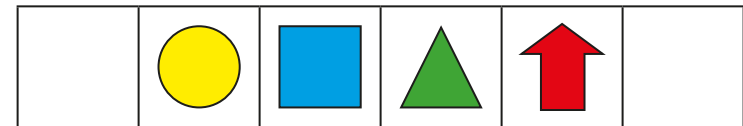


Use chalk to draw a row of four different-coloured circles on the playground.

Give children different instructions using left and right. For example, “Put your left foot in the red circle.”

Then ask children to move between circles. For example, “Move two circles to the right. What colour circle are you standing in now?”

- Here are some shapes.



- Write **left** or **right** to complete the sentences.

The triangle is to the _____ of the arrow.

The square is to the _____ of the circle.

The circle is to the _____ of the square.

- The circle moves 1 square left.



The triangle moves 2 squares right.

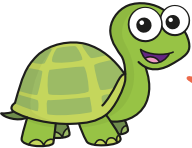
Where are the shapes now?

Describe position – left and right

Reasoning and problem solving


Sam is waving her hand.



Sam is waving her left hand.


Tiny



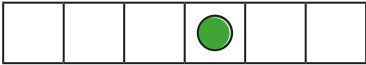

Sam is waving her right hand.

Max

Who do you agree with?
Explain your answer.




Max


Ben moves the counter 3 squares to the left.
He then moves it 5 squares to the right.
How can Ben get to the same place in one move?

2 squares to the right

Here are some shapes.



Complete the sentence.
The _____ is to the _____ of the _____
How many different ways can you complete the sentence?
Compare answers with a partner.



There are six possible sentences.

Describe position – forwards and backwards

Notes and guidance

In this small step, children develop their precision when describing positions by introducing “forwards” and “backwards”.

Children describe the positions of objects and shapes from different starting positions. To begin with, they move their bodies in line with instructions to move forwards and backwards and understand what these terms mean in a practical context. Instructions can then become more specific, such as “3 steps forwards”.

Using pre-programmable electronic toys or playing a range of simple games where children must move forwards and backwards, including small-scale dice games or large-scale outdoor track games, will support this understanding.

Once confident, children can then combine prior knowledge of “left” and “right” with “forwards” and “backwards” to describe more complex movements.

Things to look out for

- Children may confuse facing forwards with moving forwards.
- Children may have difficulty with combining various instructions, for example “Move 3 squares forwards, then 2 squares left, then 1 square backwards.”

Key questions

- How can you get from the _____ to the _____?
- How could you describe the movement?
- If two objects both move forwards/backwards, are they moving in the same direction?
- How many squares forwards/backwards/left/right has the _____ moved?

Possible sentence stems

- The _____ moves _____ squares forwards/backwards.
- To get to the _____, the _____ needs to move forwards/backwards.
- To get to the _____, the _____ needs to move _____ squares forwards/backwards, then _____ squares left/right.

National Curriculum links

- Describe position, direction and movement, including whole, half, quarter and three-quarter turns
- Use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside (non-statutory guidance)

Describe position – forwards and backwards

Key learning



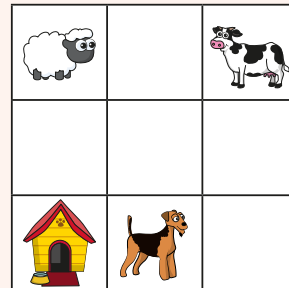
Take the class into the playground. Give children instructions such as “Move 3 steps forwards.” or “Move backwards 6 steps.”



Set up a grid for children to use and apply positional language.

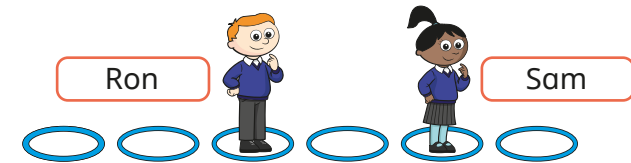
Encourage children to tell a story to say what the animals are doing.

For example, “The cow is walking forwards, towards the sheep.” Ask questions such as “How can the dog get to its kennel?”



Give children cones and skipping ropes to mark a route for a partner to follow to a treasure chest.

Children should use “left”, “right”, “forwards” and “backwards” to describe the route their partner must follow.

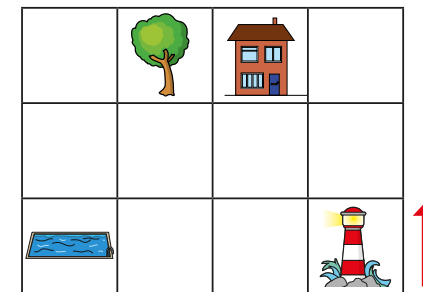


- ▶ Ron moves 3 hoops forwards.

Where is Ron now?

- ▶ Sam moves 2 hoops backwards.

Where is Sam now?



Tom and Kay are at the lighthouse and facing the top of the grid.

- ▶ Tom moves 2 squares forwards and 1 square left.

Where is Tom now?

- ▶ Kay moves 2 squares left and 2 squares forwards.

Where is Kay now?

Describe the journey from the swimming pool to the house.

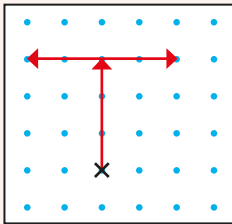
Describe position – forwards and backwards

Reasoning and problem solving



Model how to give instructions for writing a letter on dotted paper, starting at the point marked with a cross.

Explain that you are writing Tiny's name, and to write the letter "T" you draw 3 forwards, 2 left and 4 right.

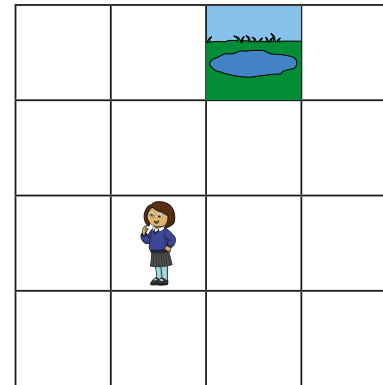


Ask children to give a partner instructions for writing the first letter of their own name.

They may need support in retracing a line they have already drawn, as in this example.

Answers will vary, depending on letter and starting position.

Kim is trying to get to the pond.



- left
- right
- forwards
- backwards

How can you get Kim to the pond?

Use the words to show three different ways.

Compare answers with a partner.



multiple possible answers, e.g.

- 1 backwards, 2 right
- 1 forwards, 2 right, 2 backwards

Describe position – above and below

Notes and guidance

In this small step, children build on the directional language developed in previous steps, extending to include “above” and “below”. They use this language to firstly describe the position of objects in relation to each other, for example, “The _____ is above/below the _____”. This could also include learning from previous steps on left and right. They then follow and give positional instructions and clues to others, for example to build a tower of cubes.

Children develop their ability to recognise and represent direction using marks and symbols. They explore the position of objects and shapes from different starting points. Where possible, this concept should be explored practically both inside and outside the classroom.

Children can also start to explore the terms “top” and “bottom”.

Things to look out for

- Children may use “over” and “under” when thinking about “above” and “below”.
- When interpreting 2-D representations, children may confuse “above” and “below” with “forwards” and “backwards”.

Key questions

- How could you describe “above”?
- How could you show me “below”?
- What is above the _____?
- What is below the _____?
- Is the _____ above or below the _____?
- Which _____ is at the top/bottom?

Possible sentence stems

- The _____ is below the _____
- The _____ is above the _____
- The _____ at the top/bottom is _____

National Curriculum links

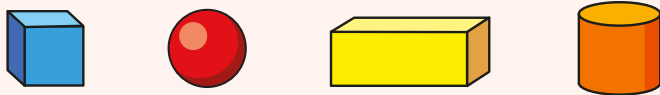
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Describe position – above and below

Key learning



Provide children with a set of different 3-D shapes.

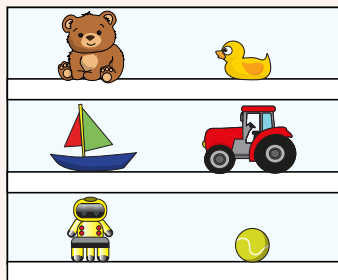


Give children instructions to follow, for example “Hold the sphere above the cube”.

Ask children to give each other instructions to follow using the words above and below.

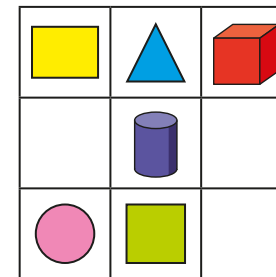


Set up a bookcase with various objects on the shelves.



Get children to talk about which objects are above or below in relation to each other. They can then move the objects into different positions and describe their new positions.

- Here are some shapes on a grid.



above

to the left of

below

to the right of

The triangle is _____ the cylinder.

The square is _____ the circle.

The cylinder is _____ the triangle.

The rectangle is _____ the circle.

The square is _____ the triangle.

- Here is a tower of cubes.



Complete the sentences.

The top cube is _____

The _____ cube is purple.

The cube below the yellow cube is _____

The cube _____ the yellow cube is red.

Describe position – above and below

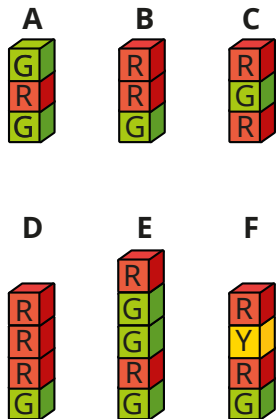
Reasoning and problem solving

Ron makes a tower of cubes.



The bottom cube is green and the top cube is red. I used fewer than 5 cubes.

Which towers could be Ron's?



Make another tower that could be Ron's.



B, D, F

multiple possible answers

all less than 5 cubes with red at the top and green at the bottom

Colour the circles to match the sentences.



- The bottom circle is blue.
- The circle below the top circle is yellow.
- The circle above the blue circle is red.
- The circle below the yellow circle is green.
- The rest of the circles are purple.

How many purple circles are there?

top to bottom:
purple, yellow,
green, purple,
red, blue

2

Ordinal numbers

Notes and guidance

This small step covers a non-statutory statement in the Year 1 curriculum. It has been included to support children to recognise numbers used to describe the position of something. It also links to previous learning such as ordering numbers.

Children may be familiar with the language relating to ordinal numbers from lining up, playing games or competing in races. Ensure that children have experience of not only 1st, 2nd, 3rd, but also identifying and representing other ordinal numbers and using them to explain events. They can record positions using numerals and the endings “st”, “nd”, “rd” and “th” as well as the words “first”, “second”, “third”, “fourth” and so on. Children may also use the word “last” to denote the final position in a group.

Things to look out for

- Children may confuse the ordinal number with the total number.
- Children may not be aware that ordinal numbers can change if the order changes. For example, if Kay is at the front of the line today, she is 1st, but if she is in another place in the line tomorrow, she is no longer 1st.

Key questions

- What does “first” mean?
- When would you use the word “last”?
- When might you use ordinal numbers?
- Is there always fourth?
- Is there always first and last? Why?
- Where is the _____ cube in the tower?
- How can you work out where _____ is?

Possible sentence stems

- I know that _____ is _____ because ...
- The person who wins the race comes _____
- _____ came last in the race.
- The position after _____ is _____
- The position before _____ is _____

National Curriculum links

- Practise counting (1, 2, 3...), ordering (for example, 1st, 2nd, 3rd ...) (non-statutory guidance)

Ordinal numbers

Key learning



Hold a mini sports day in the playground. In groups of 4 or 5, children compete in events such as running, throwing, balancing and jumping. Discuss with children how they can describe the position they finish in each event. Who came 1st/2nd/3rd ...?



Read *Chicken Licken* (traditional tale). Discuss who the characters are in the story and the order in which they appear.

Use small world characters as the animals from the story and order them from the first to appear, onwards. Can children explain their reasoning? For example, "The cow is 2nd because ...". Provide rosettes or cards with the ordinal numbers for children to match these to the animals.

To develop this further, children could make up their own stories and use ordinal numbers to order the appearances of the characters.



As a class, sing *There Was an Old Lady Who Swallowed a Fly*. Can children order the animals that the lady swallowed? Can they assign each one an ordinal number? Ask which animal was last.



Read *Mr Gumpy's Outing* by John Burningham.

Set up a car and choose children to be the characters from the story getting into the car in order. Which ordinal number matches each character? If they swap the order in which the characters enter the car, does their ordinal number stay the same or change?

- Here are some apples.



- ▶ Circle the first apple.
- ▶ Underline the 4th apple.
- ▶ Tick the last apple.

Ordinal numbers





Reasoning and problem solving





Kim and Mo use the clues to draw some shapes.



- There are four shapes.
- The 1st shape is a circle.
- The last shape is a square.
- The other two shapes are a triangle and a rectangle.

Here are their drawings.

Kim    

Mo    

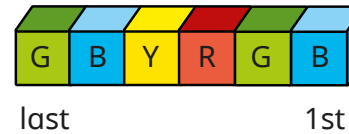
Who is correct?

Explain your answer.



Both children are correct.

Here is a line of cubes.



What colour is the 4th cube?

The red cube is taken away.

What place is the yellow cube in now?



yellow

3rd

Ben, Sam, Jo and Max run in a race.



Use the clues to work out the order of the children.

- Jo finishes 4th.
- Max wins the race.
- Ben finishes between Sam and Jo.

1st Max
2nd Sam
3rd Ben
last Jo

