Lesson - Position and direction

Year: Year 1

Hello, I am Otto! Where is your pencil? Is it on the table, under the table or next to the book? Words about position tell us where things are. Words about direction tell us which way to move. Today we learn these words.

Starter activity

Play "Simon says" with position words. Stand next to your chair. Stand behind it. Put your hand above your head and below your knees. Then take 3 steps forwards, 2 steps backwards, and turn right. Can you follow every instruction?

Position words

Definition: position

The **position** of something tells us where it is. We use position words such as **on**, **under**, **above**, **below**, **next to**, **between**, **in front of**, **behind**, **inside**, **outside**, **near** and **far**.



Look at the three boxes A, B and C. Box B is **between** A and C. Box A is **next to** B. Box C is **at the end** of the row.

Example 1

A bird sits on top of a tree and a rabbit sits under the tree. Where is the bird?

The bird is **above** the rabbit. The rabbit is **below** the bird.

Left and right

Definition: left and right

Your **left** hand is the one on the left side of your body. Your **right** hand is on the other side. If you write with a pencil, you may write with your right hand or your left hand. Hold up your right hand and make a capital R shape to remember it.



Look at the row. Number 1 is on the **left** end. Number 5 is on the **right** end. Number 3 is in the **middle**. Number 2 is to the **left of** 3. Number 4 is to the **right of** 3.

Key fact: left and right

- We read from left to right.
- Our left hand and left foot are on the left side.
- Left and right depend on which way you face.

Example 2

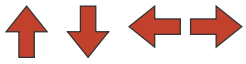
The row is 1, 2, 3, 4, 5. Which number is between 2 and 4?

The number between 2 and 4 is **3**.

Direction and movement

Definition: direction

Direction tells us which way to move. We use words such as **forwards**, **backwards**, **up**, **down**, **left** and **right**. A **step** is one move.



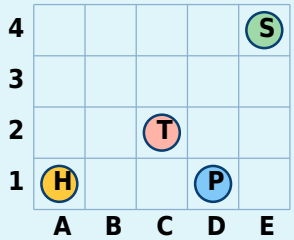
These arrows point up, down, left and right.

Method: following directions

1. Start at the starting square.
2. Do the first instruction. Move one square for each step.
3. Do the next instruction from where you are now.
4. Stop at the end and say where you are.

Example 3

You start on the square marked H. Move 2 squares right and 1 square up. Which square are you on now?

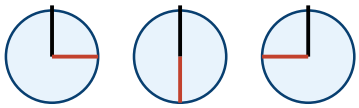


H is at column A, row 1. Two squares right takes you to column C. One square up takes you to row 2. You are on square **C2**, which has the letter T.

Turns

Definition: turn

A **turn** is a move where you spin around. A **whole turn** takes you all the way round back to where you started. A **half turn** is half of the way round. A **quarter turn** is one quarter of the way. A **three-quarter turn** is three quarters of the way.



These pictures show a quarter turn, a half turn and a three-quarter turn.

Rule: turning

- A quarter turn is the same as 90 degrees. You will learn about degrees later.
- Two quarter turns make a half turn.
- Four quarter turns make a whole turn, back where you began.
- Turns can be clockwise (like the clock hands) or anticlockwise (the other way).

Example 4

You face the door and make a half turn. What are you facing now?

A half turn takes you to face the opposite way. You are now facing **away from the door**.

Example 5

A robot faces forwards. It makes a quarter turn right. Then another quarter turn right. How much has it turned in all?

A quarter and a quarter make two quarters, which is a **half turn**.

Example 6

Which is bigger, a quarter turn or a half turn?

A half turn is bigger. It is two quarter turns. A half turn is **bigger**.

Watch out

- Left and right change if you turn round. Your own left hand stays the same.
- Do not count the starting square. Count only the squares you move to.
- A whole turn brings you back where you started. It is not a small turn!

Did you know?

Pilots and sailors use compass directions: north, south, east and west. Ships long ago found their way by using the stars. Maps use grids with letters and numbers, just like the grid in this lesson!

Otto's tip

Use your hands to check left and right. And when you follow directions, point with your finger and move one step at a time. Take your time, like a wise owl!