

The Flourish Federation—Knowledge Organiser

Brookfield Infant and Junior Schools



Subject Focus: Maths **Year 1 - Term 6** **Geometry (Position and Direction)**

What? (Key Knowledge)

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

What? (Key Vocabulary)

Vocabulary	Comments
Position	Use language of: top, in between,
Direction	Use language of: left, right, for-
Turns	Describe the turn of a shape or object. How much does it turn? Whole, half, quarter or three-

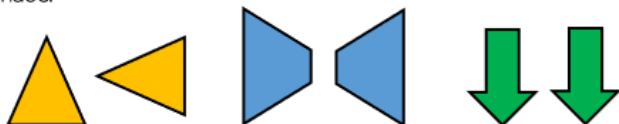
Visuals/Diagrams

Draw what each shape will look like once it has turned a:

- quarter turn
- half turn
- three-quarter turn
- full turn



Complete the sentence to describe the turns these shapes have made.



The shape has turned a _____ turn.

Children should physically move objects, shapes and themselves.

Use a big circle split into quarters (children to stand in the centre and turn) to help the children visually see what a quarter/half/whole turn looks like.

Does it matter which way you turn?

Think about where you are sitting in the classroom. What can you see around you? Complete the table.

In front of me	Behind me	To the left of me	To the right of me

Use 5 cubes to build a tower.

- Start with a yellow cube.
- Place a blue cube on top of the yellow cube.
- Place a white cube below the yellow cube.
- Place a red cube on the top of the tower.
- Place the green cube in between the yellow and white cube.

Use a grid to move a bot to different places. Use the words 'left', 'right', 'forwards' and 'backwards' to describe the movements.



Complete the sentences using 'left' and 'right' to describe the position of the coins.



The £1 coin is to the _____ of the 1p coin.

The 50p coin is to the _____ of the 1p coin.

The 2p coin is to the _____ of the 50p coin.

Examples of Reasoning

Are these statements correct?
Is there more than one answer?
Explain how you know.

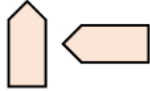
The shape has made a quarter turn.



The shape has made a half turn.



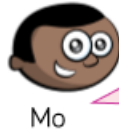
The shape has made a three-quarter turn.



Correct in either direction. It could also be a three-quarter turn in either direction.

Correct in either direction.

The shape could have made a three-quarter turn clockwise or a quarter turn anti-clockwise.



The pink doughnuts are on the left.

The pink doughnuts are on the right.



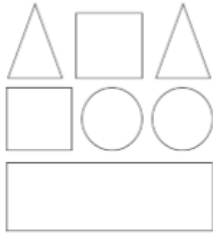
Who is correct?
Explain how you know.

Both children could be correct because they have not stated what the pink doughnuts are left or right in relation to.

The pink doughnuts are on the left of the yellow doughnuts and the pink doughnut are on the right of the blue and brown doughnuts.

Examples of Problem Solving

Use the clues to colour the shapes.



- The circle in the middle is blue.
- The circle on the right is red.
- The shape up from the right circle is green.
- The shape down from the circles is green.
- The square to the left of the green triangle is red.
- The four-sided shape up from the rectangle is blue.
- The triangle on the left is red.



Alex turns her number shape and it finishes facing this direction.



What direction could it have started facing?

What turn could it have made?

A half turn.



A quarter turn



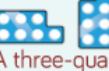
A whole turn



A quarter turn



A three-quarter turn



A three-quarter turn



ICT Opportunities

Purple Mash:

- https://www.purplemash.com/#tab/maths_shape_position_direction
- Many instructional and pattern games

Education City:

- Videos, tutorials, a range of activities and games

Manga High:

- A wealth of games, activities and competitions

Daily Maths

- Questioning during the register (How many people are absent? How many children are here? How many more children have school dinners than packed lunch).
- Lining up games - counting on/back, 2x, 5x and 10x table games
- Days of the week/months of the year