Dereham Church of England Infant and Nursery Academy- Mathematics

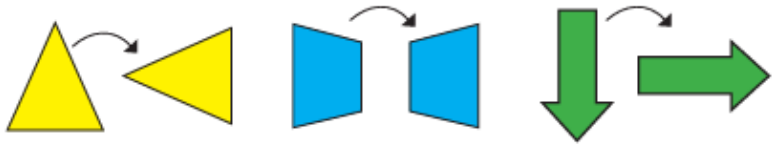
	Year group: 1	Area/topic: Mathematics- Position and direction
	Describe position, direction and movement, including whole, half, quarter and three-quarter turns Use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside (non-statutory guidance)	

Prior learning	Future learning
Children will be familiar with half and quarter from the previous block.	Children will use this leaning and further it to describe movement and turns

What pupils need to know or do to be secure	
Key knowledge and skills	Possible evidence
Describe turns	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 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

Ann turns a number piece and it faces this way.

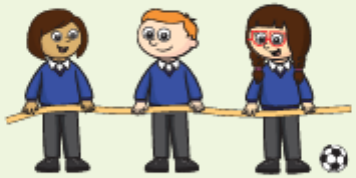
What direction could it have faced at the start?

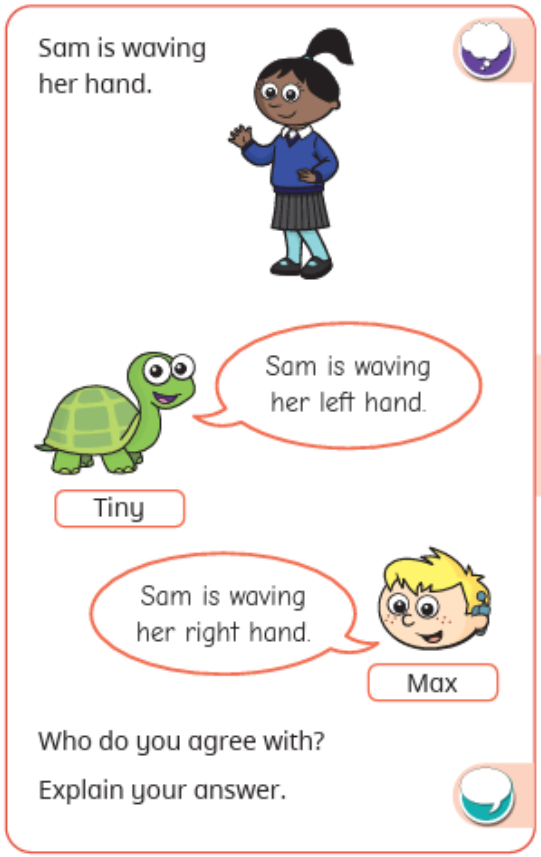
What turn could it have made?

How many answers can you find?

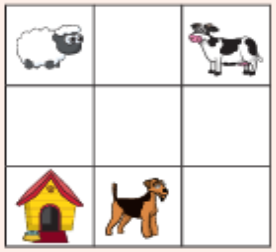
Draw your answers.

Describe the turn for each one.

Describe position- left and right	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. 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?" 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."

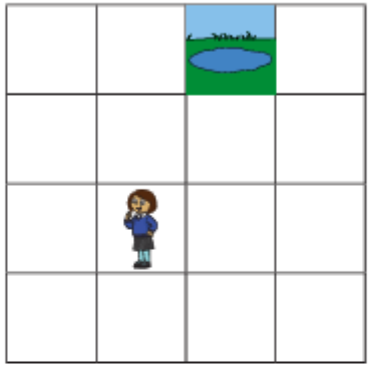
Describe position forwards and backwards	 Take the class into the playground. Give children instructions such as "Move 3 steps forwards." or "Move backwards 6 steps." Give children cones and skipping ropes to mark a route for a partner to follow to a treasure chest. Children should use "left", "right", "forwards" and "backwards" to describe the route their partner must follow.

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?"

Kim is trying to get to the pond.

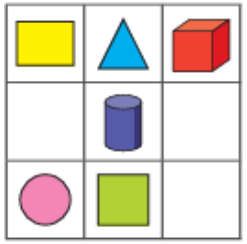


left | right | forwards | backwards

How can you get Kim to the pond?

Use the words to show three different ways.

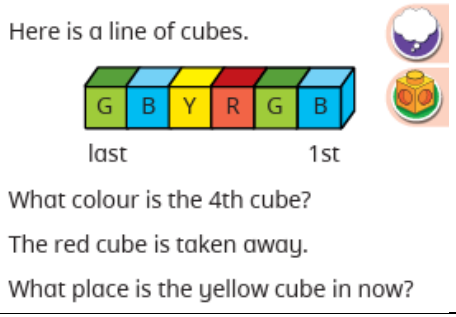
Compare answers with a partner.

Describe position above and below	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. Use the words to complete the sentences.  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.
Ordinal numbers	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 ...?

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?

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.



Key vocabulary
Turn, full turn, half turn, quarter turn, direction, position, left, right, above, below, top, bottom, first, last, ordinal,

Common misconceptions	Books linking to this area
Children may forget where they began the turn. Children may naturally always turn in one direction and should be encouraged to explore both way 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. 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. 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".	Chicken licken- traditional tale Mr Gumpy's outing by John Burningham
Memorable first hand experiences	**Opportunities for communication**
Hold a mini sports day to explore ordinal numbers Complete a range of dances that have instructions in them- hokey cokey, cha-cha slide etc	Ask key questions and discuss Share possible sentences stems and explore

Play human table football in the playground	

DCINA Reasonable adjustments for pupils with SEND

Communication and Interaction	Cognition and Learning
Use a range of visual aids Give clear instructions one at a time Repetition Provide simple instructions Pre teach vocabulary Use working wall where modelling is displayed Give children thinking time Model task	Check understanding regularly Allow rest breaks Give thinking time Colour code signs that could be confusing Work checklists Break down tasks into small steps Give opportunities for over-learning
Social, Emotional and Mental health	**Sensory and Physical**
Allow access to a quiet and calm space Give child a special role to increase self esteem Provide a visual support- what to do if you are stuck Provide a movement break Seat pupil by more confident peer Now and next board Sand timers Movement breaks Break down tasks into small steps	Consider carpet space position Reduce background noise Provide a range of manipulatives- dienes may be too small Appropriate seating Wobble boards Writing slope Enlarge text Variety of writing tools available