

NCCA Primary Mathematics Toolkit – Support material

Shape and space: Spatial awareness and location - Suggestions for learning at home

Why learning about spatial awareness and location is important

Learning about spatial awareness and location supports the development of important lifelong skills. Spatial awareness is the understanding of the relationship between ones body and objects in our environment, while location describes the position of people, places or things. By developing knowledge and skills in this area, children learn how to give and interpret directions, accurately recognise and describe ways of movement, lines, angles, etc., and interpret grids, plans and maps. The skills and knowledge acquired can be applied both inside and outside school, to support children to understand and navigate their surroundings.



IDEAS TO SUPPORT LEARNING

- When giving your child instructions (e.g., when tidying up, getting dressed, fetching items from around the house), try to include a variety of prepositional language (e.g., on, beside, in front of). Encourage your child to give instructions and directions about the location of places and things.
- · Show children a map of Ireland (physical or online) and discuss the location and proximity of towns, counties and countries on the map. Use the location language of north, south, east and west. Relate this to places of interest, e.g., counties they have visited, places where relatives live.
- Read books to your child and discuss the location and distance in relation people and places in the story, e.g., this book is set in Australia - what direction would you need to travel to get there? The princess in this story has a long journey from the castle to the village, I wonder what she passes on her way? I wonder how long the
- While playing games such as chess, Connect Four, etc. with your child model the language of spatial awareness. Discuss and justify the movements that you made in the game and share strategies that you
- · Sports provide many opportunities to discuss language of location. When watching or playing sports, talk about the position a players in relation to each other, when passing the ball, when defending, etc., e.g., number 6 needs to watch out for the player coming up on her left, he hit that ball too far to the right, the horse has to move at a sharp acute angle to make the next jump.
- Involve your child when planning a trip, look at maps together and discuss the route and itinerary together.
- Plan and follow routes in the local area, e.g., a walk to the park or shop, and discuss the directions to be followed and any safety considerations, such as adhering to traffic lights.



BOOKS

- Rosie's Walk, Pat Hutchins, 4+ years
- We're Going on a Bear Hunt, Michael Rosen, 4+ years
- Bug Dance, Stuart J. Murphy, 4+ years
- The Greatest Gymnast of All, Stuart J. Murphy, 4+ years
- My Map Book, Sara Fanelli, 5+ years
- Hamster Champs, Stuart J. Murphy, 7+ years
- Treasure Map, Stuart J. Murphy, 7+ years
- Sir Cumference and the Great Knight of Angleland, Cindy Neuschwander, 9+ years
- Sir Cumference and the Viking's Map, Cindy Neuschwander, 9+ years
- *Your local library provides a wide range of free books and resources which support in developing children's mathematical learning

GAMES / ACTIVITIES

- Building blocks (these can be used to highlight relevant language such as beside, in front of, etc. or to create mini-towns, farms, etc. in which children can position and navigate toy people, vehicles or animals)
- Snakes and Ladders

- Battleships
- Puzzles and mazes
- Connect Four
- Draughts
- Jenga Chess
- Lego

- Simon Says, Follow the Leader, Mother May I (using language such as left, right, rotate)
- Red Light, Green Light
- Scavenger Hunts
- Songs with choreographed dance moves such as the Cha Cha Slide, the Hokey Pokey, the Macarena
- Tangram puzzles, jigsaws



LEARNING ONLINE

- Help My Kid Learn www.helpmykidlearn.ie
- Scoilnet www.scoilnet.ie/primary/theme-pages/mathematics/
- Maths Week Ireland Parents' Zone www.mathsweek.ie
- Maths Eyes https://haveyougotmathseyes.com/

Useful terms to search online: spatial awareness, location, shape and space, learning, primary, maths, positions, directions, maps, orientation, navigation, compass, grids, co-ordinates, locations, angles, games, activities

ates, locations, angles, games, activities

ARTS AND CRAFTS

- 3-D art projects such as constructions of real or imagined buildings or places design structures to scale, consider the lines and angles involved, and the positioning of these, explore and discuss from different perspectives such as birds-eye views.
- Mosaic art using junk art materials.
- Design and make a maze these can be drawn on paper or constructed with card.
- Design a treasure map for a house or garden treasure hunt.
- Follow instructions to make constructions and crafts.
- Tessellation activities search online for printable templates.



YOUR OWN IDEAS

