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| **Mathematics: Shape, Space and Measures: Spatial Awareness - Developing Knowledge and Skills Sequentially** |
| **Range/Knowledge** | **Positive Relationships** | **Enabling Environments** |
| 1. | • Explores space when they are free to move, roll and stretch• Developing an awareness of their own bodies, that their body has different parts and where these are in relation to each other | • Support babies’ developing awareness of their own bodies e.g. through baby massage and singing songs • During floor play sometimes place objects that are just in or just out of reach, including small objects on cloths that babies can pull towards themselves. | •Provide opportunities for babies to move freelyon carpets, grass etc. Observe and sensitively support babies’ play and give them long stretches of uninterrupted time to explore.• Provide low mirrors to support babies to develop abody awareness |
| 2. | • Explores space around them and engages with position and direction, such as pointing to where they would like to go | • Use spatial words during every-day play and routines. or one-word comments e.g. as you get children *in* and *out* of a highchair.• Play hide and reveal games with objects in boxes and under cups. • Support babies’ physical experience of positions and direction, e.g. describing *up* and *down*. | • Play games that involve curling and stretching, popping *up* and bobbing *down.* • Provide boxes, cloths and bags for children to store, hide and transport items.• Provide nested boxes, cups and toys of different sizes that fit inside each other. • Share books that provide opportunities to use spatial language and describe movement |
| 3. | • Enjoys filling and emptying containers• Investigates fitting themselves inside and moving through spaces | • Model thinking during tidy up routines to promote reasoning and logic about where things fit/are kept • Support children’s interest in body-sized spaces -provide commentary on the child going *inside, under, over, between/squeezing through* • Look for opportunities to use spatial language during play activities. | • Designate specific places or spaces for items to be kept and fitted into for tidying • Respect children’s urge to explore spaces, to get inside and move between • Build towers *up* for the child to knock *down.* • Provide shape sorters and packaging wherechildren can hide, enclose or post items through holes. |
| 4. | • Moves their bodies and toys around objects and explores fitting into spaces• Begins to remember their way around familiar environments• Responds to some spatial and positional language• Explores how things look from different viewpoints including things that are near or far away | • Encourage children to predict what they will see next on familiar route • Take everyday opportunities to use words for position and direction accompanied by gesture (e.g. *in, on, inside, under, over*) Use equivalent terms for these in home languages through liaison with families • Enjoy games involving jumping, running/hiding/make simple obstacle courses, e.g. *going up/down*.• Model your thinking when arranging things, using some position words • Help children create simple roads/rail tracks - talk about position • Value children’s explorations of spaces and viewpoints and their interest in how things look different. | • Design outdoor spaces where children learn via a variety of spatial experiences (*going* *under, over, around, on top, through*) and hear spatial language in context • Encourage children to communicate freely their mathematical thinking through gesture, talk and graphical signs • Plan stimulating indoor/outdoor spaces where children make choices about where to go and create their own routes. • Provide materials to create trails.• Provide resources for transporting. |
| 5. | • Responds to and uses language of position and direction• Predicts, moves/rotates objects to fit the space or create the shape they would like | • When children are exploring, use language of position/direction in context (*in, on, inside, under, over,* *between, beside, next to through, along*, including relative terms which depend on where you are, e.g. *behind, in front of, forwards/backwards*). Use equivalent terms for these in home languages - in liaison with families.• On walks/in pictures/while playing, point out how things/people that are faraway look smaller • Support children’s problem solving when they are creating rail tracks/road layouts • In block play, support and challenge experienced builders to make bridges and enclosures • Encourage perseverance with jigsaws, e.g demonstrate “hovering” jigsaw pieces to check if they fit. | • Provide spaces to display children’s ongoingmathematical thinking, e.g. their own ways of representing their thinking and scribing children’s words.• Provide opportunities for children to explore position themselves *inside, behind, on top* etc.• Provide picture books to stimulate discussion about position and direction • Create trails and treasure hunts with the children • Organise the indoor/outdoor environment with outlines for objects or specific places for children to tidy up items by fitting them into the designated space. |
| 6.  | • Uses spatial language, including following and giving directions, using relative terms and describing what they see from different viewpoints• Investigates turning and flipping objects in order to make shapes fit and create models; predicting/visualising how they will look (spatial reasoning)• May enjoy making simple maps of familiar andimaginative environments, with landmarks | • Encourage use of relative terms (*in front of, behind, before and after, in a line, next to and between)* • Encourage children to explore what they can see from different viewpoints • Encourage children to describe position /give directions in play*/*in daily routines • Encourage children to create scaled-down models such as in small world play • When children are fitting shapes into an outline or making a modelfrom a 2D picture, help them to select more spatially challengingactivities • Encourage children to make maps of routes they have walked ortravelled in some way. | • Play barrier games (where players have an identical set of objects which are hidden from each other; one player makes an arrangement of objects and gives instructions to the other to try to make the same arrangement).• Plan opportunities for children to describe and recall familiar routes.• Engage families in taking photos of familiar thingsfrom different viewpoints |