

## Focus plan for Problem solving, Reasoning and Numeracy

### Activity -Ladders and ropes -

#### Learning intention

Use developing mathematical ideas and methods to solve practical problems.

#### Resources

Pictures of fire fighters/fire engines

Bendy plastic tubing of different lengths to be hoses

Thick string of different lengths to be ropes

Different lengths of ladders cut from card

Small world people, wooden bricks

#### How the activity will be carried out

Look at the pictures of fire fighters with the children. Talk about what sort of equipment they use to help people who are trapped by a fire. Invite the children to each build a tower with the bricks. Can they stand one of the small world people on top of their tower? This person needs to be rescued. Ask the children to choose a ladder to help the fire fighter to reach their person. Talk with them about how long the ladders are. Is it long enough to reach to the top of their tower? Is there one that would reach further? Count how many bricks long a ladder is. Allow the children to help the play person climb down the ladder. Invite them to build a different tower, and stand another person on the top. Explain that this time the fire fighter is going to use a rope to rescue them. Ask them to choose a rope that is long enough for their tower. Is there a rope that can link two towers together for the play person to get to safety?

#### Questions to ask/Language to use

How long? Too short/too long/tall/short/reach/longer/shorter/high/low

#### Differentiation (Birth to Three)

Use the wooden bricks to make towers that are tall and short. Lay them along the ground to make lines of bricks that are short or long.

#### Extension

Give children a length of bendy hose and ask them to find things in the nursery that are longer than it. Or Shorter. Make a collection.

#### Evaluation