

Supporting learning

Observe children as they engage in construction. Model mathematical language by commenting on and questioning children about how they select and arrange objects.

- *I would like to make a train with five carriages. Can you choose blocks to use from this pile?*
- *I think you have put the blocks in a special pattern. You have put a red one, then a yellow one, then a red one again. What are you going to put next?*

Encourage children to describe their choices and explain their reasoning.

- *You have used the big blocks on the bottom of your castle. Did you do that for a reason?*
- *Where is the road you are making going to? How many more tiles do you think you will need? Do you think there are enough?*

Use prompts and questions to support children in making direct comparisons.

- *Which tower is taller now? How many blocks do you think you would have to add to yours, Vicky, to make it the same size as Evie's?*
- *You have both used tiles to make long roads. I wonder how many more tiles are in Sam's than Jake's. How could we find out?*

Construction

Illustrated learning outcomes

- Recognise and continue repeating patterns (NWN Phase 1)
- Count out a smaller number of objects (up to six) from a larger group (CS Phase 3)
- Compare sets of up to 20 objects, using language such as 'more' or 'fewer' (CS Phase 5)
- Estimate a number of objects that can be checked by counting (CS Phase 5)
- Count large groups of objects by using efficient strategies (CS Phase 6)
- Understand subtraction as 'take away' and find a 'difference' by counting up (CS Phase 6)

Look, listen and note:

- how children describe their models, including any patterns within them
- strategies children use to count items accurately
- whether children make sensible estimates based on previous experience or reasoning
- how children compare, e.g. two towers of different heights and whether they are able to find the 'difference'

Resources and suggested activities

- Blocks of different shapes and sizes, including some with numbers on
- Assorted construction equipment such as:

crates	planks	balls
boxes	tubes	wheels
dowelling	tiles	play mats
- Additional craft materials such as:

card	string	tape
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- A variety of commercial construction kits

Look for opportunities to use the visual images provided by models, such as towers, to encourage children to make direct comparisons, for example:

- encourage children to make similar models;
 - ask children to discuss what is the same and what is different about their models, encouraging them to move the models next to each other, where possible, to compare them;
 - talk about which model contains more or fewer items, how many more or fewer and how to check their ideas.
- Provide mark-making equipment for children to use, to incorporate words and numbers as labels into their models. Include: pens, paper, sticky tack, number cards, plastic or wooden numerals. Assemble them in carpenters' aprons.