

## Making Caterpillars

Comparing lengths using non-standard measures  
Describing 3D shapes



**Children often** enjoy using modelling clay to create long thin rolls of dough, like caterpillars.

**Adults could** support them to compare the lengths and thicknesses of their models and to use linked cubes to measure them.

### The Activity

Provide children with modelling clay and pictures of caterpillars, and invite them to create their own caterpillars.

### Encouraging mathematical thinking and reasoning:

#### Describing

What will your caterpillar be like? How can you make one?  
Tell me about your caterpillar.  
How is your caterpillar similar to/different from ...?

#### Reasoning

Can you make a train of linked cubes the same length as your caterpillar?  
How long is your caterpillar?  
Who has made the longest caterpillar? How do you know?  
Who has made the shortest caterpillar? How do you know?

#### Opening Out

How could you make a longer one?  
How could you make a shorter one?  
How could you make a heavier one? A lighter one?

#### Recording

Draw a picture or take a photo to show how long your caterpillar is.

## The Mathematical Journey

### Properties of shapes:

- using everyday language to describe, for example, length, weight, thickness, thinness, hardness, softness and how these properties change as the children make the caterpillars

### Same and different:

- developing language to compare and contrast different caterpillars e.g. longer, shorter, thicker, thinner ...

### Size and measures:

- measuring lengths, weights etc in different ways
- understanding that the more dough is used, the heavier the caterpillar will be

### Development and Variation

Children are often fascinated by watching caterpillars. A caterpillar hunt might be a suitable introduction to the task.

Children might also compare:

- lengths of different familiar objects such as shoes, scarves, skipping ropes
- weights of household objects and groceries such as pieces of fruit.

### Story, rhyme and song links

The Very Hungry Caterpillar by Eric Carle is, of course, a popular and familiar story. It offers opportunities to make cross-curricular links and links to counting and number comparisons, as well as the order of the days of the week.



### Resources

- Play dough/plasticine/modelling clay/salt dough
- Equipment for measuring caterpillars, where appropriate, such as interlocking cubes, counters, rulers, balance scales
- Photographs of caterpillars

This activity is adapted, with permission, from 'Mathematics Through Play in the Early Years' by Kate Tucker

Photo acknowledgements <http://www.kidsbutterfly.org>

