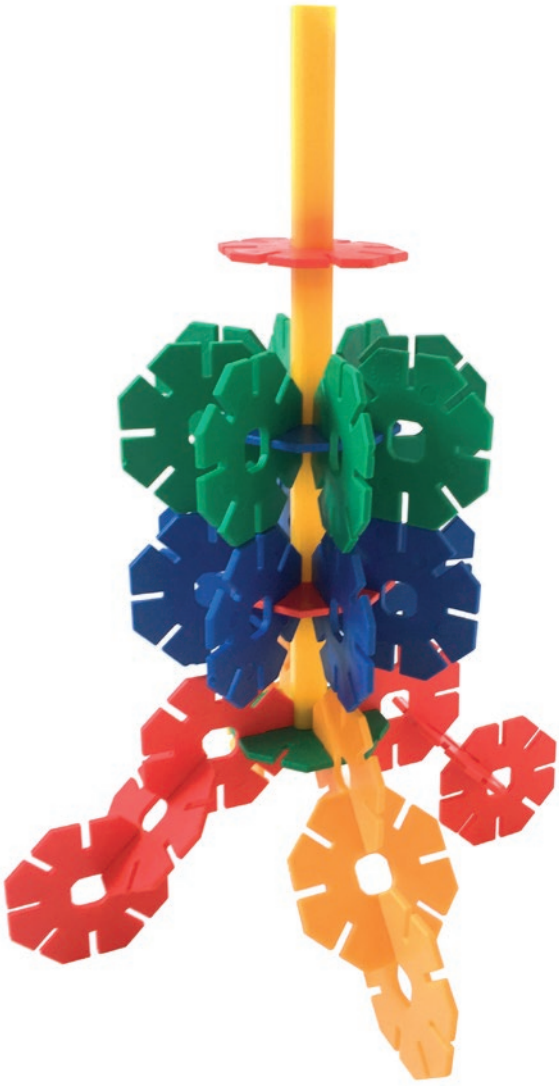
Exploring OCTO PLAY™



Neil Burton

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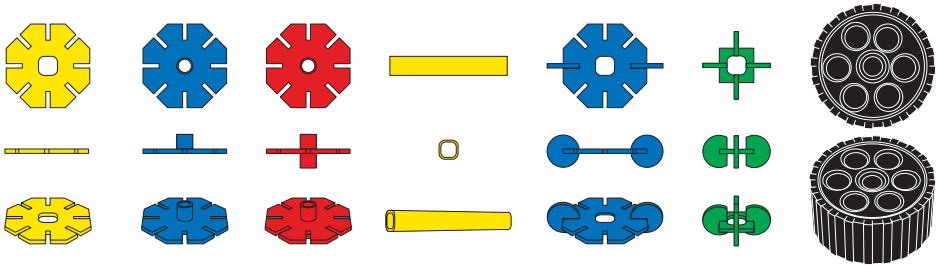
Introduction

This booklet aims to help the teacher identify and realise the potential of OCTOPLAY as a means of enabling children to develop their mathematical, spatial awareness and design technology capability.

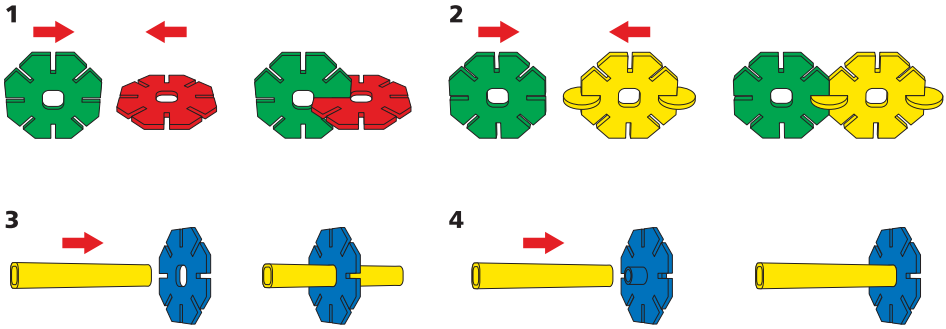
The Octoplay Range

The OCTOPLAY range of components;



Flat | Single Peg | Twin Peg | Long & Short Struts | Twin Disc | Quad Disc | Wheel

Connecting OCTOPLAY components together



1. Simply slide 2 Octoplay Flats together
2. Connect an Octoplay Flat and a Twin Disc
3. Slide a Strut through an Octoplay Flat
4. Push a Strut onto a Single or Twin Peg

Using Octoplay

OCTOPLAY is a simple construction system, designed with younger children in mind, to promote an exploratory and creative approach to the development of certain mathematical and technological capabilities.

Connecting the components together will help the children to improve their fine motor coordination and offer opportunities for them to communicate their ideas in a physical and creative way.

Developing an Understanding of Mathematics

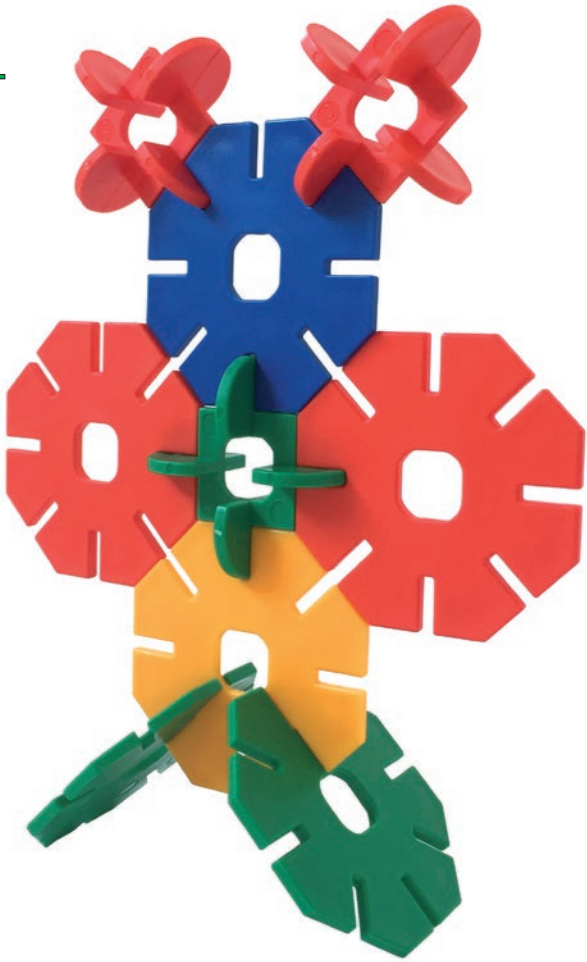
The children can be encouraged to use the components in sorting and sequencing activities as a prelude systematic planning of D&T.

People

You will need

6
flats

3
quad
discs

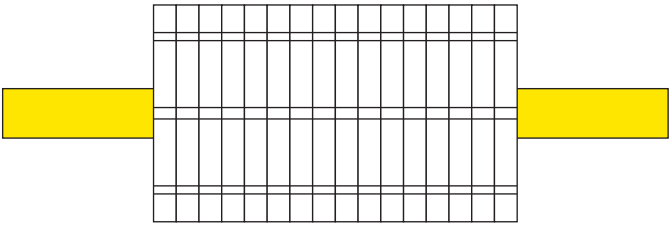


- ❑ Can you make different people using other shapes from the range?
- ❑ Can you build short people?
- ❑ Can you build tall people?

Sequencing

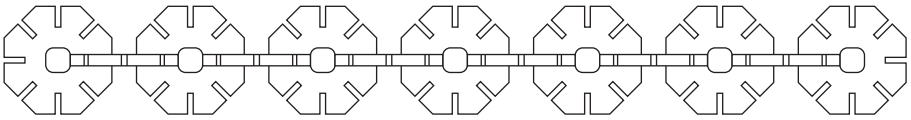
❏ Using a and lots of  make up some repeating patterns.

Record them here.



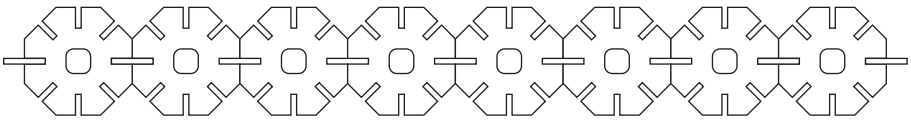
❏ Using just  colours of  make chains that have repeating patterns.

Record them here.



❏ Using  &  make chains that have repeating patterns.

Record them here.



Crown

❑ You will need 16  to start with (8 each of 2 colours)

❑ How many different patterns can you make?

❑ Can you make the patterns repeat?

❑ Try making Crowns with repeating patterns which;

have different numbers of each of the colours

use three colours

use all four colours

How high can you go?

You will need

5+
flats

2+
twin
discs

- ❏ How tall can you build your tower before it topples over?
- ❏ Use other Octoplay pieces to make it more stable.

How wide can you go?

You will need

11+ flats

1 peg

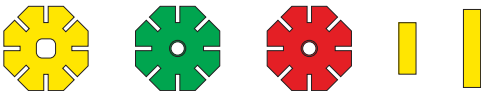
1 quad disc

1 long strut

- ❏ How much wider can you go before the tower topples over?
- ❏ How important is symmetry?
- ❏ Can you build a balanced tower which isn't symmetrical?

Rocket

You will need



30 flats | 1 peg | 1 twin peg | 1 + 1 struts

- ❑ Is your Rocket easy to knock over?
- ❑ Do you need to make it more stable?
- ❑ How will you do this?

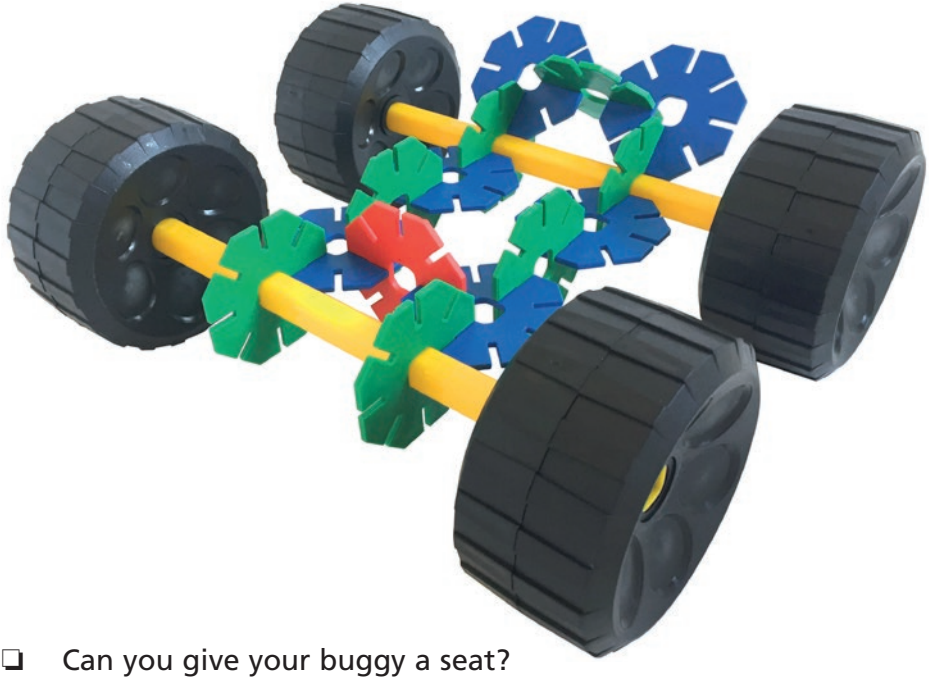
Buggy

You will need

14
flats

2
long
struts

4
wheels



- ❏ Can you give your buggy a seat?
- ❏ Can you give your buggy a roof?
- ❏ Can you make it longer?

Roundabout

You will need

12+ flats

1 peg

1 short strut

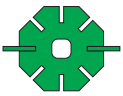
1 wheel

- ❏ How long can you make the arms of the roundabout?
- ❏ Do all the arms need to be the same?
- ❏ Can you make plasticene people to sit on your roundabout?

Octopus

You will need

56
flats



1
twin
disc

- ❏ Can you make the octopus so that each of the legs is different?
- ❏ How many of the legs must touch the ground?
- ❏ How high can the legs go?

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