

STAGE ONE – INTRODUCING BIOMIMICRY

Teacher Notes

The first stage is to define the problem or opportunity students want their design to address. It helps to set the goal students want their design to deliver and any factors they will need to consider. Critical in this stage is to consider the context their design will operate in and the functions (what it does) it needs to deliver.

We suggest you:

- *Start with the 'Introduction to the Challenge and Biomimicry' presentation (30 mins).*
- *Use the Seed Design Task if you have time (30 mins).*
- *Present the challenge using the 'Defining your Challenge' presentation and accompanying student worksheets (30 mins).*

The following resources will support you.

1. Introduction to the Challenge and Biomimicry

The PowerPoint presentation introduces the challenge and provides an introduction to biomimicry. It includes a student task to recognise how nature has inspired human design. See also a set of printable cards available for download.

2. An Introduction to Biomimicry

An introduction to the principles and practice of biomimicry. Good background reading prior to starting.

3. Biomimicry Principles

A description of each of the nine biomimicry principles. Useful handout for students.

4. Seed Design Task

This quick task provides an opportunity for students to develop their biomimicry thinking. This is described in the PowerPoint presentation 'Seed Design Task'.

5. Defining your Challenge

The PowerPoint presentation provides a structure for students to define the challenge they wish to address. This is accompanied by the student worksheet.