S3 Design and Manufacture:
Wk 5: Idea Generation

Idea Generation

On the next slides you have an explanation of an idea generation technique, an example of the technique in use and a task.

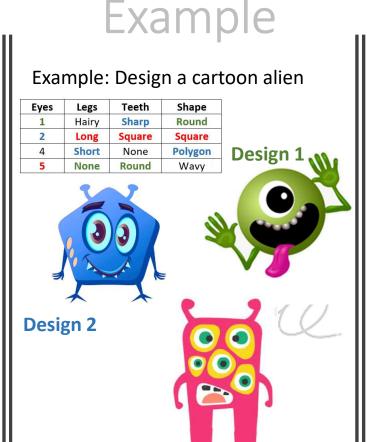Complete the task using the idea generation technique described

Idea Generation – Morphological Analysis

Description

This is when you create lists of the different variations you could make a product then mix and match between options to create different solutions.

Steps:

1. Identify the different things that could be changed in a product and use them to create columns.
e.g Material, power source etc

2. Think of the different options that could be available for each of these factors e.g Material: wood, metal..

3. Select a different option for each factor/column and design a product with these options

Example

Example: Design a cartoon alien

Eyes	Legs	Teeth	Shape
1	Hairy	Sharp	Round
2	Long	Square	Square
4	Short	None	Polygon
5	None	Round	Wavy

Design 1

Design 2

Design 3

Task

Use the description and example to support you in creating 3 different ideas for a boat or spaceship.

First complete the table and list the different factors that could be changed

Then you will fill out the different options you can think of for each factor.

Then you can pick and mix from the different columns and use these to create your designs

Factor 1	Factor 2	Factor 3	Factor 4

Idea Generation – Take your pencil for a walk

Description

Uses randomly generated shapes to inspire a products design.

Steps:
1. Without lifting your pencil off the page fill your paper with random lines and shapes
2. Identify a shape or pattern within the lines that you can use to inspire your design; this might be the overall shape or a component part
3. Use this shape to generate a design solution.

Example

Example: Monster Design

Trying not to take my pencil off the paper too often I drew a series of random shapes
I then looked at the shape and added in basic detail/made changes. Finally I added colour and detail

Task

Use the description and example to support you in creating ANYTHING you like.

This can be adding detail to the overall image like in the example or it can be picking out shapes and using them as your main shape for a product

Try the technique out and see what product or products you can make from your shapes.