

**DES-  
IGN**

## DESIGN

# IMAGINING, DEVELOPING AND CREATING YOUR IDEAS

In this section you will explore your design concepts and ideas through drawing and model-making.

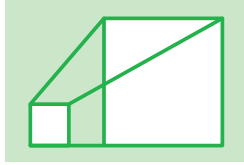
# DESIGN PRINCIPLES

Design terms to consider when you start designing

**CONTEXT**



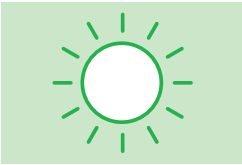
**SCALE**



**FORM**



**LIGHT**



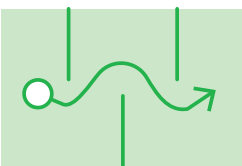
**MATERIALITY**



**STRUCTURE**



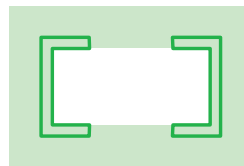
**CIRCULATION**



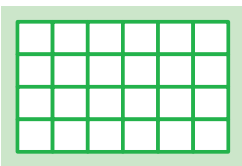
**ENCLOSURE**



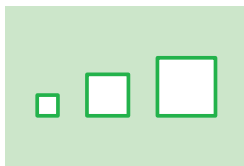
**SPACE**



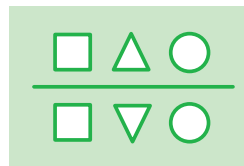
**REPETITION**



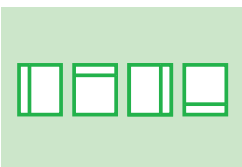
**PROPORTION**



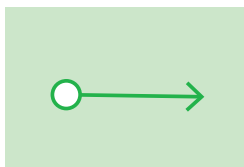
**SYMMETRY**



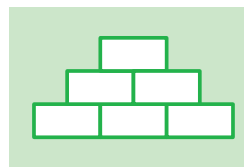
**RHYTHM**



**AXIS**



**HIERARCHY**



## CONCEPT DESIGN

Now that you have completed the **RESEARCH** stage, it's time to start designing!

A concept is a main idea or starting point for your design. You might explore many different concepts, later choosing one to move forward with. Your concept will continue to evolve and develop as you progress through the design process. Don't be afraid to let it go and start again, that's all part of designing!

### Online Resources – Design



[mydesignjournal.ie/students/design-idea](https://mydesignjournal.ie/students/design-idea)

[mydesignjournal.ie/students/2d-drawing](https://mydesignjournal.ie/students/2d-drawing)

Drawing definitions, scale, sketches, collage, perspective, plan, section

[mydesignjournal.ie/students/3d-model](https://mydesignjournal.ie/students/3d-model)

Context model, concept model, building model, photographing your model

### Activity

#### GENERATE IDEAS

It's best to work fast and freely with an open mind. Use your imagination and be flexible. Nothing is fixed at this stage! Use drawings and models as communication tools within your group.

#### What will your design look like?

- What are your initial responses to the site?
- Try out some freehand concept sketches to experiment with form and structure
- Quick concept models can also help you to explore and communicate your ideas
- Ask for feedback on your ideas

#### Allocate tasks within your group:

- Concept sketches
- Concept models

#### Materials / Resources

A1 or A2 paper, card, range of drawing and model-making materials

## 2D DRAWING

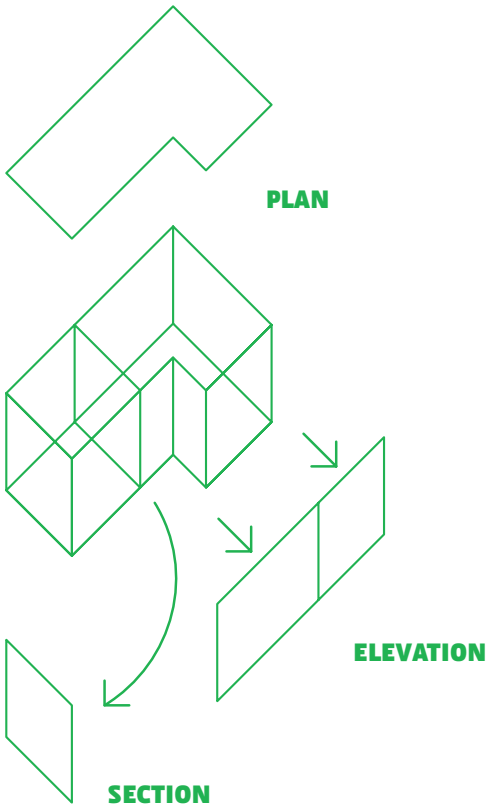
### Developing your ideas through drawing

**The next step is to develop your concept design ideas through drawing.**

Refer to your **RESEARCH** to help you focus on the site and the user requirements in more detail. As you design, you will be guided by both your **DESIGN BRIEF** and by your own creative responses to it.

**Why draw?**

Architects use different types of drawings to work out their designs, from freehand sketches to orthographic drawings and CAD (Computer Aided Design) drawings. Drawings are a very useful part of the design process as you can start to see the design taking shape.



**Activity**

**DRAW YOUR DESIGN**

**Orthographic drawings**

An orthographic drawing is a 2-dimensional representation of a 3-dimensional object or structure. Plans, Sections and Elevations are different types of orthographic drawings, drawn to scale. Clear examples of these drawings are available on the website.

**Scale**

Architects work with scaled drawings. A drawing that is scaled 1:100 means that 1 metre on paper = 100 metres in real space. Refer to the website for more information.

**Allocate tasks within your group**

- Site plan (1:1000, 1:500)
- Floor plans (1:100, 1:50)
- Sections (1:100, 1:50)
- Elevations (1:100, 1:50)
- Perspective sketch (not to scale)

**Materials / Resources**

Tracing paper, cartridge paper, pencils, erasers, charcoal, pastels, scale ruler, set square, OS maps of the site.

## 3D MODEL

# Developing your ideas through model-making

### Why make models?

Modelling your idea will help you to think about the spaces, structure and form of your design.

Architects often design through models as it helps them to think in 3D and to consider plan, section, elevations and perspective all at once!

‘Architecture is an untapped source of magnificent stories waiting to be imagined, visualised, and built.’

Matthew Hofmann, Architect

### Activity

## MODELLING YOUR DESIGN

### Getting started

There are many ways to approach model-making. Be prepared to experiment. Try out different materials and techniques to see what works best for your design idea. There are lots of inspiring examples and useful tips about materials and safety on the website. Photograph your models as you go along.

### Allocate tasks within your group

Context model – showing your idea within the site and surroundings (1:1000 or 1:500)

Building model – a model of the design (1:200, 1:100, 1:50)

### Materials / Resources

Cutting mat, steel ruler, foam-core board, mounting board, A1 and A2 card, balsa wood, lollipop sticks, barbecue skewers, glue, scalpel, scissors, staplers.

Computers: Minecraft and SketchUp can be used to design virtual 3D spaces.