

# Problem to Pitch – Lesson 1



## Problem to Pitch - Project Management

## Introduction to Design Thinking

### **Lesson Title and Summary:** What is Design Thinking?

Design Thinking is the cognitive, strategic and practical processes for creative problem solving. This lesson will introduce students to the 5 stages to build a foundational Understanding of the process.

**Vocabulary:** Empathy; Context, Culture; Qualitative; Users; Stakeholders

### **In this lesson, the learner will:**

- be introduced to Design Thinking
- explore the 5 stages of Design Thinking
- create their own understanding of the stages through quick practical tasks
- work as pairs and individuals to begin to understand the iterative processes
- practice time management

### **Materials:**

- Introduction to Design Thinking worksheet
- A4 paper
- Internet access
- Lesson 1 Flipped Classroom worksheet
- Stakeholder mapping activity

**4** QUALITY  
EDUCATION



**11** SUSTAINABLE CITIES  
AND COMMUNITIES



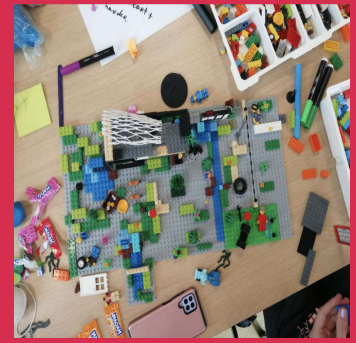
**12** RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION



**13** CLIMATE  
ACTION



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## Activity Instructions

### Activity 1 Introduction to Design Thinking (25mins) Use

- 1) If working digitally share the worksheet or this can also be projected. You can also circulate handouts and ask them to keep all their work in a folder to be assessed at the end of the module. The first activity completes the worksheet up to the section on Define.
- 2) Watch the short video on Design Thinking Introduction worksheet then have students working in pairs to find the meanings of the words and re-write them in their own words.
- 3) Have each pair share their meanings with the class, photograph each groups answers and use this to create a 'group' design thinking vocabulary list / glossary.
- 4) As a class discuss the 5 stages of Design Thinking image – reviewing any terms that are new

### Activity 2 – Ideate - Worst Idea Good Idea – (30 mins)

- 1) Allow students 30 minutes to complete the Ideate and Prototype task of the worksheet in pairs. Remind them that they will have to manage their time to allow for the prototyping and testing stage. The aim is not to create masterpieces but to work quickly and experimentally – it should be made clear that given the limitations, it's just to quickly show the idea in 3D.

Have students complete the Flipped Classroom worksheet before the next lesson.

Reflective exercise – see below (5 mins)

### REFLECTIVE EXERCISE: 3-2-1

- Three things they feel they have learnt from the tasks
- Two things they found most interesting and would like to explore more
- One – their opinion they have about the tasks

### EXTENSION / REDUCTION ACTIVITIES:

**Reduction:** For a shorter class remove activity 2 and spend more time in building the collective vocabulary list – have each student type up their words and definition and add to a shared document.

**Extension:** For a longer class give students more time and materials for the Ideate – Prototype stages of Design Thinking.

If students have project themes in mind they could also begin to research their stake holders and local organisations through the stakeholder mapping worksheets – see media box

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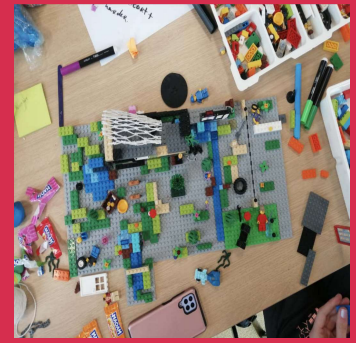
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## MEDIA BOX: (materials, online video links, extra resources, case studies etc)

- **Design thinking Mindsets**  
<https://drive.google.com/file/d/0B9jWVYCVFZu6RWFSem1TYIljeEU/view>
- **Design Thinking introduction worksheet**
- **Flipped classroom worksheet** - introduction to complexity
- **Stakeholder Mapping worksheet** supports students to focus on their local place, its issues and its audience.
- **Linked learning:** Communication Skills and Media Communication Skills micro-modules support the development of the 4Cs skills – Creativity, Communication, Critical Thinking and Collaboration. Tutors are encouraged to work with other tutors to develop the project through multiple outcomes such as video, poster, Pecha Kucha, Interviews or Podcasts and SDG 4 supporting Skills - reports.

**SDG Focus:** See Introduction to Sustainable Development Goals lessons

- **Introduction to SDGs for Young People** <https://www.un.org/sustainabledevelopment/youth/>
- **Explore the SDGs** <https://sdgs.un.org/>

**To focus on SDG 14:** combine SDG 4 Problem to Pitch with SDG 14 Problem to Pitch Marine Plastic Waste micro-module lesson plans and worksheets

## Local Trip / Expertise / Additional Work and Assessments

If students have some ideas or issues they wish to work with have them undertake a local stakeholder mapping to begin to find out what's in their area.

Have students complete Lesson 1 Flipped classroom on wicked problems for next lesson

Have students complete a stakeholder mapping of their local place – village, town or city.  
See also stakeholder mapping sheet additional tasks

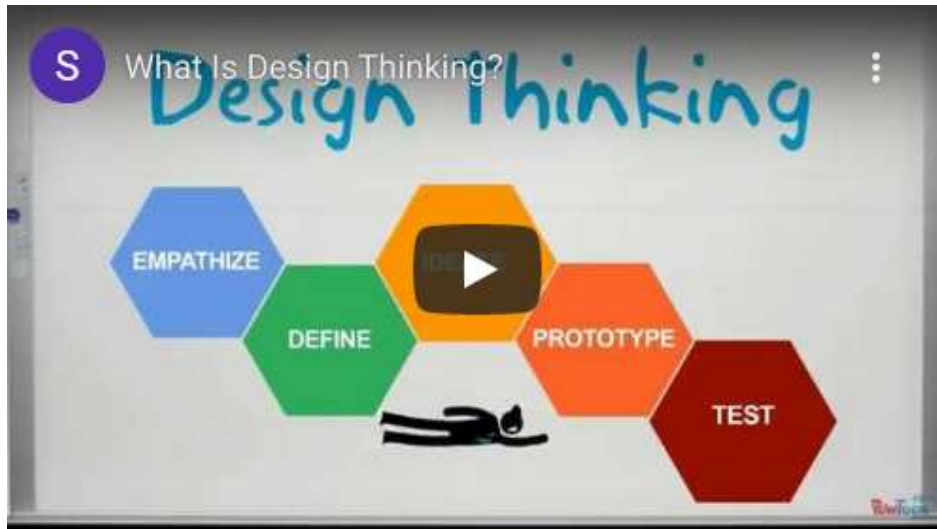
Encourage students to keep a folder of all their work and worksheets of the Design Thinking module

# LESSON 1 DESIGN THINKING INTRODUCTION

4 QUALITY EDUCATION



## WHAT IS DESIGN THINKING?



Working in pairs google these words (or use a dictionary) to find out what they mean and re-write the definitions in your own words

1. Ergonomic -

2. Context -

3. Culture -

4. Stakeholders -

Your answers will be shared with the class to build a vocabulary list and definitions - this is called a glossary

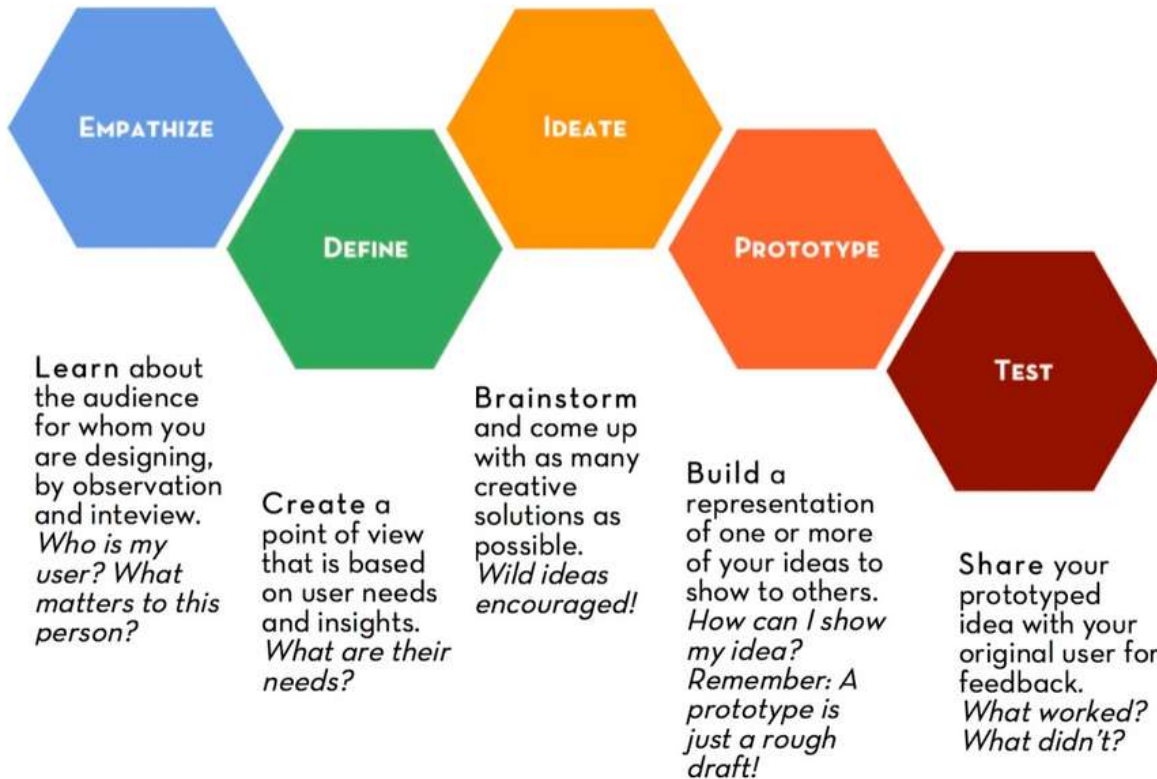


# LESSON 1 RECORDING INFORMATION

4 QUALITY EDUCATION



## The 5 stages of Design Thinking:



Before you start to work on your problem or project have a look at each stage and see what you need to think about in any project. You will also have to manage your time as the last three tasks will take more time.



Empathise - Most projects will involve people at some point. What might you need to think about - Discuss with your partner and write down 3 things that might matter to a user / audience member

1.

2.

3.

Define - What's your problem? Often we deal with symptoms - a runny nose, a sore throat but we need to deal with our immune system. In defining your problem you will look at the whole system. Write down 3 problems you know of in your community or the world.



1.

2.

3.

# LESSON 1 RECORDING INFORMATION



## The 5 stages of Design Thinking:



**Ideate** – This is the stage in the process to think about as many ideas as possible. For now, write down the 2 worst ideas you can think of – swap them with your partner and try to create three good ideas from each others bad ideas.

Bad Ideas.

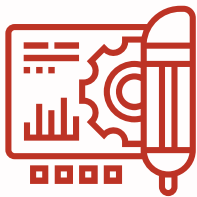
Good Ideas

1

1.

2.

2.



**Prototype**– using only 1 piece of paper build or make one of the good ideas above. You will have to be creative, how will you make the shapes; folding, tearing? If you are to fix it together, how might you do this – links, cutting, what other ways of joining things together can you experiment with?

**Remember:** There is no right answer this is about experimentation – have fun.



**Test** – The final stage is testing. In this stage you learn about the product, service or idea you have created . Share your 'good idea' prototype with your partner and they will share with you.

Things to discuss / consider:

**Test** – The final stage is testing. In this stage you learn about the product, service or idea you have created . Share your 'good idea' prototype with your partner and they will share with you.

Things to discuss / consider and questions to ask:

1. Who might the user be?
2. Look at how it is made – remember there were limits to materials so you are looking at their problem solving and creativity.
3. Is there anything they could try to make it better or improve it using the materials they had?
4. How might you explore the idea further if time and materials were not a limit?

# DESIGN THINKING STAKEHOLDER MAPPING 1



## Stakeholder Mapping

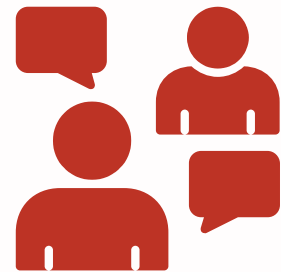
A project's stakeholders are the people or groups of people who can impact or are impacted by a project. If doing a project you will need to understand the different parties involved and how you will need to communicate and engage with them

You will now begin to undertake a stakeholder mapping of your local place. Usually you will start this by having your decision challenge at the centre of your mapping..

Individually or as a class create a list of all the different individuals, groups, or organisations that you can begin to identify and categorise who you might need to discuss or share your project with.



**SERVICES / PROVIDERS**



**USERS /  
BENEFICIARIES**



**GOVERNANCE**



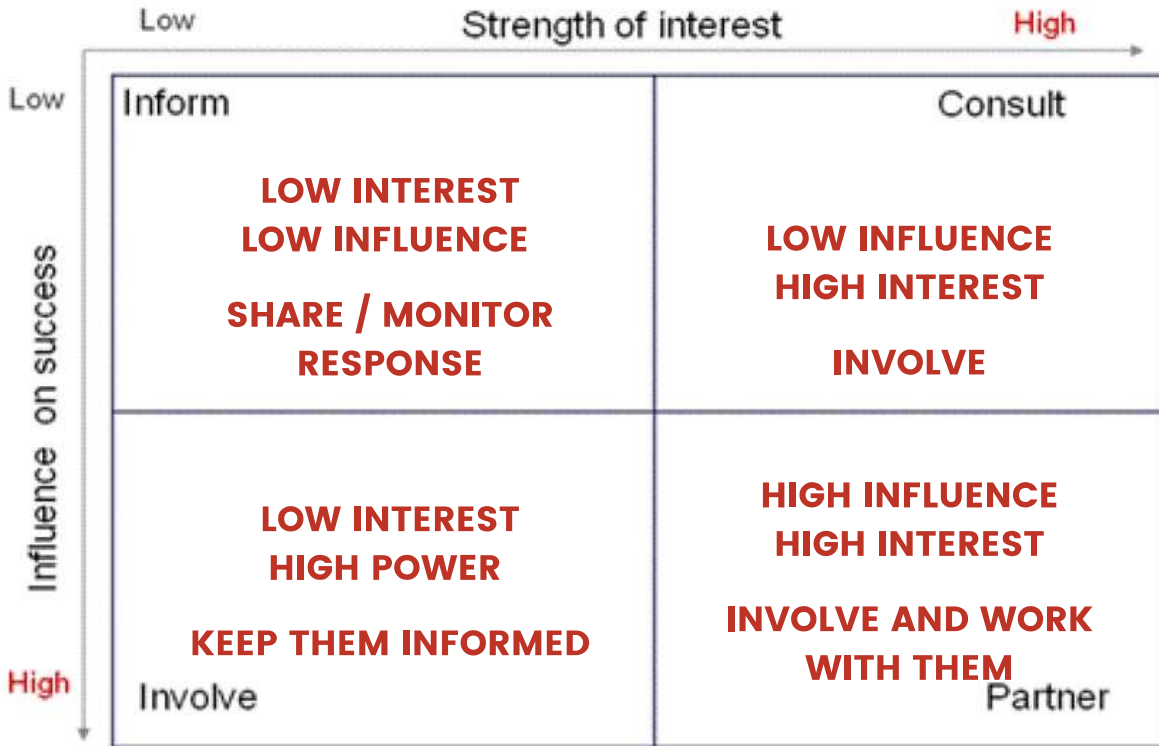
**INFLUENCERS**

# DESIGN THINKING STAKEHOLDER MAPPING 1



## DIFFERENT WAYS OF MAPPING

Now you have a list you are going to practice organising them with project samples



1. You are developing a skate park in a square in the centre of town – use your own town / village and pick the most central spot.

Use the grid above to organise your list of stakeholders and how you will need to communicate and engage with them.



2. You are want to create a youth music festival for your town / village.

Use the grid above to organise your list of stakeholders and how you will need to communicate and engage with them.

**You will undertake another stakeholder mapping once you have your own project idea..**



# LESSON 1 FLIPPED CLASSROOM ACTIVITY



## Learning about Complexity

What is complexity <https://www.youtube.com/watch?v=3ZpNZbLQ8Ik>



## What is a Wicked Problem (Rittel, 1973)?

What is a wicked problem <https://www.youtube.com/watch?v=IOKpB4KtUZ8>

Watch the video and give 4 qualities of a wicked problem.

- 1.
- 2.
- 3.
- 4.

## Climate Change is a Wicked Problem

<https://www.youtube.com/watch?v=XRoCxS6n53U>

## How can Design Thinking help with wicked Problems?

<https://www.youtube.com/watch?v=WrdSkqRypsg>

Watch both the videos above and give 3 areas you might use Design Thinking to work on an aspect of climate change

