

TITLE	Design Thinking Part 1: Innovation and Ideation
TIME (approx.)	90 Min
OUTCOMES	<ul> <li>Students will:</li> <li>Discuss Innovation and Ideation</li> <li>Reflect on their ideas since the introductory module</li> <li>Share their independent ideas and collaborate with a group to select the best 3 or 4 ideas</li> <li>Determine their business solution to the challenge as a group</li> </ul>
KEYWORD	IDEA GENERATION; IDEATION, INNOVATION; DESIGN THINKING; PRODUCT; SERVICE
VIDEO	Ed Commander – COO Entropolis
ADDITIONAL RESOURCES	Worksheets – Idea Generator from the introduction module; Design a Product or Service;     Market Research; Draw your Product or Service



#### KIDPRENEUR ACTIVITY



#### **EDUCATOR NOTES**



#### **WATCH VIDEO**

MOD | INTRO - Innovation and Ideation
Presented by: Ed Commander, COO Entropolis

#### 1. Discuss terms – Innovation and Ideation

Add these to your display board.

In this module we will be sharing our ideas as a group, then coming up with new ideas and solutions to the wants, needs and problems identified.

#### **DISCUSSION NOTES**

**Innovation:** is simply as a "new idea, device or method". It is often also viewed as the application of better solutions that meet new requirements, unarticulated needs, or existing market needs

**Ideation:** Brainstorming a lot of ideas to solve a problem

#### 2. REVIEW SET THE CHALLENGE



#### INTERACTIVE ACTIVITY

#### **Review Challenge and Ideate**

You have been asked by Kidepreneur Challenge HQ to think of some cool new business ideas such as:

- Solve a problem that you know people experience (or have experienced yourself!)
- Meet a need in your local community

#### **ACTIVITY NOTES**

#### **New Business Ideas**

Kidpreneur review the challenge and share with a small group.

The shortlisted ideas from the group may not be the product that they take through to full production – we still have prototyping and testing to go yet!!

#### Remember there is no such thing as a bad idea (yet!)

Ideation sessions should be active and fun ... Kidpreneurs should be encouraged to think creatively and abundantly as possible within the parameters of the problem they are solving and not worry too much about feasibility and risk etc. at this stage.

Tips for facilitating a great ideation session:



 Share your passion (What interests you? Could you turn it into something you could sell?)

 Or it could just be for entertainment like a toy or a game!

Kidpreneurs get into groups of 3 and share their 3 main ideas one-by-one in a group.

Select 3 or 4 of the best ideas from the group to solve the challenge.

https://www.forbes.com/sites/robertbtucker/2017/11/16/seven-brainstorming-techniques-for-your-next-ideation-session/#6810197f6d5d

https://www.collectivecampus.com.au/blog/how-to-run-an-ideation-session

# 3. HOW CAN WE CREATE A PRODUCT THAT SOLVES A PROBLEM OR SATIFIES OUR CUSTOMERS?



#### KIDPRENEUR WORKSHEET ACTIVITY

#### Complete the worksheet:

- Empathise: What are some of the ways our group can find out our customers' wants, needs and preferences?
- Define: What problem or need does our product solve?
- Ideate: what are the possible designs solutions we could use to solve the problem?

Use the Market Research worksheet to record feedback from your customers.



#### KIDPRENEUR WORKSHEET ACTIVITY

Kidpreneurs can now brainstorm design solutions for their ideas from discussions.

- At this stage, Kidpreneurs can buy or collect raw materials to help them create their design solution.
- Kidpreneurs may want to brainstorm and draw lots of designs on scrap paper, then draw their final design on their worksheet.
- Remind Kidpreneurs to think about how to design their product so that their target market will want to buy it.

Draw your business idea or product.



KIDPRENEUR WORKSHEET ACTIVITY

#### **ACTIVITY NOTES**

**Design Thinking** is a process of designing a product to solve a problem or meet a need. The process starts with the customer's wants, needs or problems and works backwards to design a product that solves that problem or meets that need.

1. **Empathise** - Speak to customers and find out what their wants, needs and preferences are. This is called 'market research'.

#### Some ways to conduct market research are:

- Create a written survey to give to people in the target market to fill in
- Create an online survey using a free platform such as Survey Monkey or Google Forms
- Interview people in the target market
- Do research online through search engines or write questions through a social media channel for people in the target market to respond to.

In all cases Kidpreneurs must have adult permission to conduct market research with strangers for this activity.

Market research questions can be one of two types: open questions or closed questions. When conducting market research, encourage Kidpreneurs to use a range of open and closed questions.

- Open questions: Questions that can have detailed answers. This helps find out new information that might not predicted. E.g. "What do you like the best about this product design?" "What could I improve with product design?" "What problems do you experience with normal [product name] that you purchase?"
- Closed questions: Questions with a set number of answers. Closed questions are good for calculating the number of people who prefer a certain option. "E.g. Do you prefer the blue or the orange design?" Yes / No, "Would a product that is instead designed like [insert alterative design idea] be helpful for you?" Yes / No
- Define Choose one of these specific problems or needs the product will be designed to solve or meet a need.
- Ideate Brainstorm a range of possible design solutions to solve the problem or meet this want/need. (The product doesn't have to address the entire problem just one aspect of it.)

In Module 2 we will complete the design thinking process of:



[Note: Kidpreneurs will be making their prototype in the next module]

- 4. **Prototype** Make an example product or 'prototype' of the best product design to get feedback.
- 5. **Test** Conduct more 'market research' to get feedback from the target market on the prototype.
- 6. **Refine** Make improvements to the prototype based on the market research feedback before beginning full scale production.

Entrepreneurs will repeat these steps several times until their feedback tells them they have designed a high-quality product their customers will want to buy.





#### TIPS AND SUPPLEMENTARY EDUCATOR RESOURCES

To explore the concept of design thinking further here are some helpful resources:

Products designed to solve problems: http://pbskids.org/designsquad/

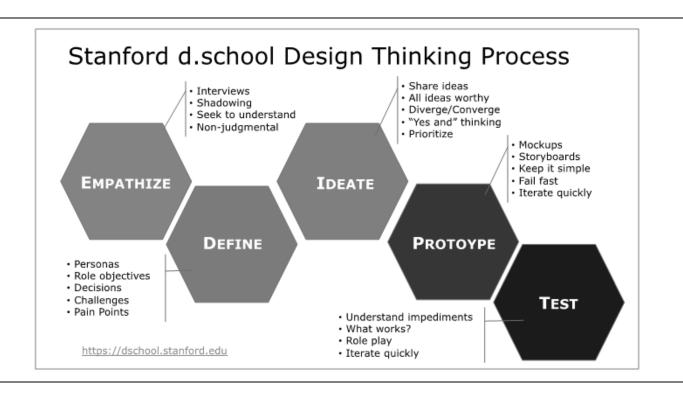
Design Thinking Information for Educators: http://www.edutopia.org/blog/design-thinking-betty-ray

The framework we have used to underpin our Design Thinking modules is based on the best practice Stanford d.school Design Thinking process. We have adapted it for primary education purposes.



**Stanford Framework** 





#### Alternative Framework for reference

## A Framework for Design Thinking

## 1. Discovery

Choose an affirmative, strategic topic. Gather data. Understand & empathize with unmet needs.

#### 2. (Re)Frame opportunity

Look for patterns & insights. Question assumptions. Frame your POV. Define your scope.

## 3. Incubate

Switch gears. Feed your brain with diverse stimuli. Meditate. Sleep on it.

## 8. Iterate & Scale

Evaluate. Learn. Create. Innovate.

### 7. Deliver

Final testing, approval and launch.

## 6. Rapid Prototype /test

Think big, act small, fail fast; learn from end-users and refine.

#### 5. Evaluate/Refine ideas

What is desirable, feasible, viable about your ideas? What are the constraints?

Experiment. Explore possibilities. Envision a desired future. Co-create in diverse team. Make your ideas visible.

Plant

Grow

4. Ideate/

illuminate

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