



Amazon  
Longitude  
Explorer  
Prize

In partnership with  
**amazon**  
Delivered by  
**nesta**  
Challenges

# How to use the lesson plans:

Each session (except the introductory presentation), has:

- A facilitator plan for you to follow,
- A powerpoint presentation to show the group,
- A list of materials needed for the session.

Some activities recommend handing out materials during the session, so it is advised to spend roughly 5-10 minutes prior to prepare. All materials can be downloaded for free on the prize website:

<https://longitudeexplorer.challenges.org/>

While the sessions are outlined below in order, this is an example schedule. You can pick and choose lesson plans/activities to create your own schedule to meet the needs of your group and your own timeframes. We estimate that the sessions last 30-40 minutes each if delivered as they are, but you can adapt the time spent on activities to make them shorter.

## **Example lesson plan schedule:**

Week 1 - Discovering a problem

Week 2 - Defining the problem

Week 3 - Idea generation

Week 4 - Turning an idea into a reality

Week 5 - Part 1: Security & ethics & Part 2: Application writing time.



# Lesson plan 4: Turning an idea into a reality

## Learning objectives:

- Working as a group, and as an individual, to develop an understanding of developments in design and technology to apply to their own ideas.

## Time:

- 30-40 mins

## Materials needed:

- Post-it notes/paper or word document/notes
- Pen/pencil
- Making your own idea a reality (template)- online and in powerpoint presentation

## Slide 1:

(title slide)

## Slide 2:

To begin the session explain that they will do a quick recap of what they discussed last time and that they will need their chosen ideas from the last session.

Explain that the previous session was all about idea generation to come up with lots ideas fast and to then build on them as a group. Ask the group if anyone can remember some of the things that are helpful to keep in mind when coming up with new ideas?

- Avoid criticism
- The more the better
- Be inspired by others
- The sky's the limit

## Curriculum links:

- Undertake a creative project which will involve electing, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals.
- Demonstrate an understanding of the design process.



Amazon  
Longitude  
Explorer  
Prize

In partnership with  
**amazon**  
Delivered by  
**nesta**  
Challenges

### Slide 3:

Explain that their first activity is to look at the key stages on the slide and then in their groups put them into the order they think they should be completed from start to finish. Explain that this will be timed and they only have 1 minute to do this.

### Slide 4:

Explain that this product development journey is not always the same but generally this is often the order in which these activities occur so its important to start to think about what this might look like for their own ideas.

- *Discovering a problem & definition: Think about a problem first*
- *Idea generation: coming up with ideas for a solution.*
- *Design & development: think about how the idea might work/what it would look like*
- *Research iteration: Validate your idea through market research, e.g. what other solutions already exist, ask the intended user what they think of your idea. Be prepared to iterate (change the idea following feedback)*
- *Prototype: create a mockup of your solution/idea.*
- *Business case: Think about costing, planning, scheduling.*
- *Marketing: Think about how you will let others know about your solution - how can you reach them?*
- *Analysis: Think about you could know if its working and its successful - and again be prepared to continue to develop/iterate the solution!*

A key takeaway is also the importance of testing and iterating which means getting feedback from the people who will use your idea about what they think about it as you develop it along the way.

Hand out the product development journey worksheet to the groups and ask them to start to write down some answers to the key questions on it. Explain that they will have 15 minutes to do this.

### Slide 5:

To close the session explain that by answering these questions and completing the previous activities they have not only come up with a new idea but also they have already started to answer the questions in the application form for the prize!

**Note to the facilitator:** If there is no access to a printer then the template can also be copied from slide 4 with pens and paper or using a word document if conducting this session online.



Amazon  
Longitude  
Explorer  
Prize

In partnership with  
**amazon**  
Delivered by  
**nesta**  
Challenges

Explain that in the final activity session the first half will cover the last topic which is on security and ethics but the second half will be a chance for them to fill out the application form.

Encourage the groups to continue to work on their ideas in between sessions. And either ask a team member to look after their notes for the next session or collect them in.

Remind the group that they have access to lots of free resources on: <https://longitudeexplorer.challenges.org/>

## References

<https://www.shopify.co.uk/blog/product-development-process>

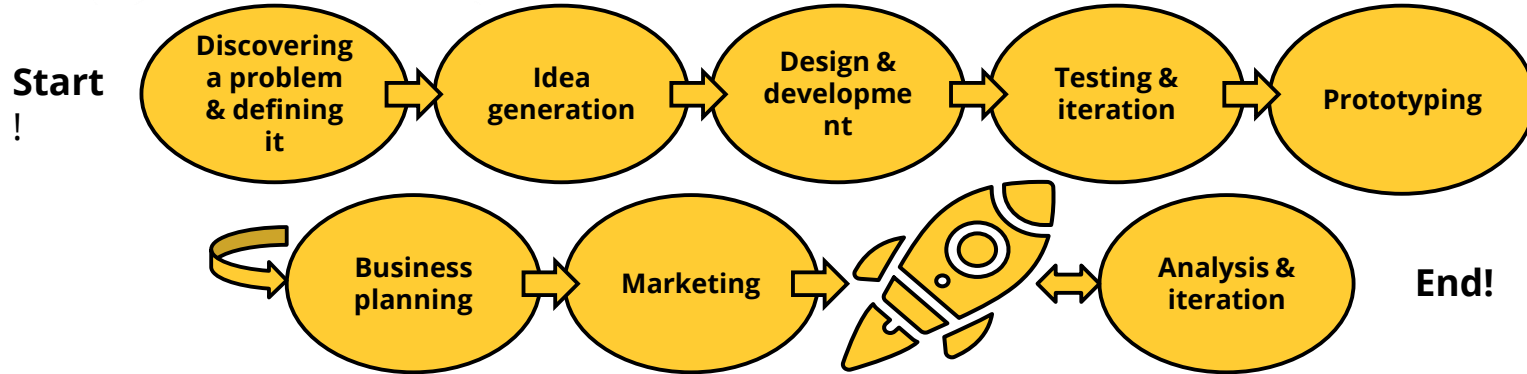
<https://www.cognidox.com/blog/7-stages-of-new-product-development-process>

<https://www.productplan.com/glossary/product-development-process/>

<https://productschool.com/blog/product-management-2/career-path/7-phases-of-product-development/>



# Template:



What do you think you would need to create your idea?

*Tip: think about what materials, technology, data and information you might need.*

- 

How will you let people know about your idea?

*Tip: think about ways you could promote your idea.*

- 
- 

What should you consider in a business plan?

*Tip: Think about who is it aimed at, why would they want to use it, will it cost to use it?*

- 

How will you know that your idea works?

*Tip: think about ways you could measure if your idea is working.*

-