

App design starter project – Delivery guide

Introduction

This delivery guide helps mentors and teachers guide children through the 5 stages of an app design starter project. Timings for each stage are for guidance only. You can tick off each box as you go.

The project challenge

The challenge is pre-defined: ***help 12 year-old Richard to find good books***. And some answers are pre-filled in the Slides to give you and the children an idea of what might be expected for each part of the process.

What you need

1. Delivery guide - (this document) to see how to support each activity
2. [Slides](#) – to show the children each stage and activity
3. [Workbooks](#) or worksheets – for children to work through projects

Workbooks can be found in the [Design Club shop](#). Or click the worksheet links below for printouts. You can either print these yourself or ask the school to print for you.

First time you've run a Design Club project?

Here are some [things to watch out for](#)

Project stages and activities

Stage	Activity	Time
<u>Define a challenge</u>	<ul style="list-style-type: none">● Introduce the workbook● Fill in your project cover● Frame your design challenge	5 mins
<u>Empathise with people</u>	<ul style="list-style-type: none">● Create a profile of your user● Map out a typical day● Build an empathy map	30-60 mins
<u>Ideate possibilities</u>	<ul style="list-style-type: none">● Create an app name and logo● Brainstorm feature ideas	30-60 mins
<u>Prototype your design</u>	<ul style="list-style-type: none">● Prioritise feature ideas● Review app design basics● Map out the information architecture● Sketch and prototype your app	2-3 hours
<u>Test your design</u>	<ul style="list-style-type: none">● Run a mini test● Plan a user test● Conduct a user test● Reflect on your project	30-60 mins

Stage 1 – Define a challenge

Main aim

- Understand what the project is about
- Show that setting an intention is important

Optional warm up game

- ❑ [Change places](#)

Introduce the project and workbook

- ❑ Tell children they'll be designing an app to help Richard find good books
- ❑ Say they can work in small teams or alone. Show them the [workbook](#)
- ❑ Ask children to split into 2 and 3s. Give each team one copy of the workbook
- ❑ Ask children if they have any questions before you start

Fill in your project cover

- ❑ Worksheet: [Fill in a cover sheet](#) (or front of [workbook](#))
- ❑ Show children the contents and explain you'll work through each stage

Frame your design challenge

- ❑ Worksheet: [Frame your design challenge](#) (page 5 of workbook)
- ❑ Read through the example on the slide. Ask children to copy into workbooks
- ❑ Ask the children why they think it's important to frame the challenge
- ❑ Explain this helps focus on Richard and how they are going to help him
- ❑ Ask if they can think of reasons why Richard might want to find good books

Stage 2 – Empathise with people

Main aims

- Introduce the group to the concept of empathy
- Identify Richard's needs in relation to the challenge

Optional warm-up game

- ❑ [Tell the story of your person](#)

Create a profile of your user

- ❑ Worksheet: [Create a profile of your user](#) (page 9 of workbook)
- ❑ Encourage teams to draw a picture of how they think Richard is feeling
- ❑ Ask teams to consider Richard's needs in relation to the design challenge
- ❑ Encourage children to come up with their own ideas and be creative
- ❑ Optional: Run a group activity for everyone to contribute (Post-its help)

Map out a typical day

- ❑ Worksheet: [Map out a typical day](#) (page 9 of workbook)
- ❑ Ask children to think about what Richard might do every Tuesday
- ❑ Read out the activities on the slide. Ask children to think of others
- ❑ Ask questions to get children thinking:
 - Where is the person? Who are they with?
 - What do they like/dislike doing? What are their habits?
 - How does what they're doing relate to the challenge?

Build an empathy map

- ❑ Worksheet: [Build an empathy map](#) (or pages 10 & 11 of workbook)
- ❑ Ask the group what they think an empathy map might be
- ❑ Explain it will help us understand the world from Richard's perspective
- ❑ Ask can they think of a situation where Richard might need to find good books
- ❑ Suggest maybe he's about to go on holiday, or starting a new school
- ❑ Optional: Use A3 or whiteboard to make an example empathy map as a group
- ❑ Go round the empathy map (start with seeing) and elicit ideas for each section

Stage 3 – Ideate possibilities

Main aims

- Produce a range of ideas (ideally through group collaboration)
- Evaluate how different ideas and features might help Richard's needs

Optional warm-up game

- ❑ [Throw ideas around](#)

Create an app name and logo

- ❑ Worksheet: [Create an app name and logo](#) (or page 13 of workbook)
- ❑ Remind the group to think about Richard and how he might find good books
- ❑ Suggest they add a "Start" button to help Richard navigate the app
- ❑ Ask teams if their logo and tag is catchy? Does it suggest what the app does?
- ❑ Stress that the logo and tagline can be revisited and improved later

Gather inspiration

- ❑ Worksheet: [Gather inspiration](#) (or pages 14 & 15 of workbook)
- ❑ Ask the group why this might be a useful activity
- ❑ Explain it can help spark ideas – encourage teams to write big & draw pictures
- ❑ Tell them to let their imaginations run wild - everything helps at this stage
- ❑ Optional: Bring in magazines and and cut out pictures to add

Brainstorm feature ideas

- ❑ Worksheet: [Brainstorm feature ideas](#) (or pages 16 & 17 of workbook)
- ❑ Helpsheet: [See how features help us do things](#) if teams need ideas for features
- ❑ Read out the examples on the slide and ask group if they can think of others
- ❑ Encourage the teams to write (and draw) ideas on Post-its to start with
- ❑ Ask teams to present their features and ideas to the group
- ❑ Encourage others in the group to ask questions
- ❑ Mention that prototyping is next – check if anyone can remember what this is

Stage 4 – Prototype your design

Main aims

- Understand the importance of sketching to communicate ideas
- Plan and sketch screens that demonstrate different app features
- Use [Marvel App](#) to create a clickable prototype

Prep for this stage

- ☐ Ensure each team has access to at least one smartphone or tablet
- ☐ Ask teams to download [Marvel App](#) to their device
- ☐ Install Marvel App on your own phone, ready to show the group
- ☐ Ask the school if you can use its WiFi or check you'll have 4G connection
- ☐ Print off extra [Sketch your app](#) worksheets in case they're needed

Optional warm-up game

- ☐ [Quick sketch](#)

Prioritise feature ideas

- ☐ Worksheet: [Prioritise feature ideas](#) (or page 19 of workbook)
- ☐ Check to see if children know what prioritise means
- ☐ Explain it is about ordering things (most important first)
- ☐ Remind teams to refer back to Richard and think about his needs
- ☐ Read out the example on the slide - ask children what else might help
- ☐ Encourage teams to ask themselves "how useful would Richard find this?"

Review app design basics

- ☐ Helpsheet: [Review app design basics](#) (or pages 20 & 21 of workbook)
- ☐ Encourage children to look at these different concepts with their teams
- ☐ Ask if they recognise any of these design basics in apps they already use
- ☐ Optional: Discuss concepts as a group – check how much children understand

Map out the information architecture

- ☐ Worksheet: [Map out information architecture](#) (or pages 22 & 23 of workbook)
- ☐ Ask teams what they think information architecture might be
- ☐ Say it's about organising – check if they've ever organised clothes into drawers
- ☐ Read out the slide and discuss these examples with the group
- ☐ Encourage teams to use Post-its to organise & name different parts of the app

Sketch and prototype your app

- ☐ Worksheet: [Sketch your app](#) (or pages 24 & 25 of workbooks)
- ☐ Ask children why they think sketching ideas is important
- ☐ Suggest teams start by creating a screen with the logo, tag and “Start” button
- ☐ Ask teams what Richard might expect to see after clicking “Start”
- ☐ Hand out additional [Sketch your app](#) worksheets if needed
- ☐ Suggest teams split sketching and prototyping jobs (within their team)
- ☐ Open [Marvel App](#) on your device and introduce it to the group
- ☐ Demonstrate how to link screens (or watch the [How to get started](#) video)
- ☐ Give teams the chance to play with Marvel and link their screens together
- ☐ Encourage teams to tweak screens (i.e. add a back or menu button if missing)

Stage 5 – Test your design

Main aims

- Understand what testing is and why it matters
- Carry out some testing to gain feedback
- Celebrate the completion your projects

Prep for this stage

- ☐ Print off enough [certificates](#) for each child
- ☐ Bring some cake or fruit to help the celebrations (nut-free if possible)

Optional warm-up game

- ☐ [Solve the anti-problem](#)

Run a mini test

- ☐ Worksheet: [Run a mini test](#) (or page 27 of workbook)
- ☐ Encourage teams to get feedback on their app and ideas
- ☐ Ask the group why they think testing might be important
- ☐ Encourage teams to take it in turns to role play Richard for another team
- ☐ Ask them if they know what role play means and why it's important for empathy
- ☐ Ask teams to note how they might improve their apps from the feedback

Plan a user test (optional)

- ☐ Worksheet: [Plan a user test](#) (or page 28 of workbook)
- ☐ Use this option if you have a little more time
- ☐ Ask children if they know what closed and open questions are
- ☐ Mention closed Qs can be answered with yes/no, single words, short phrases
- ☐ Say that open Qs require longer, often more thoughtful answers
- ☐ Read out the examples of closed and open questions on the slide
- ☐ Ask children if there are any other questions they can think of

Conduct a user test (optional)

- ☐ Worksheet: [Conduct a user test](#) (or page 29 of workbook)
- ☐ Again, use this option if you have a little more time
- ☐ Mention this is similar to running a mini test (if they've done previously)
- ☐ Use the notes from the mini test (above)

Reflect on your project

- ☐ Worksheet: [Plan next steps](#) (or page 30 of workbook)
- ☐ Encourage children to reflect on their experience for 5 minutes
- ☐ Remind them they can't get anything wrong and to be honest

Finishing up a project

Share and celebrate

- ☐ Encourage each team to stand up front and present their apps
- ☐ Ask each team what went well and what they'd do differently next time
- ☐ Encourage the rest of the group to ask at least one question
- ☐ Provide lots of encouragement and positive feedback
- ☐ Hand out rewards: certificates from the [Resource Hub](#) - and cake!
- ☐ Tell each team how well they've done – applause is good :)

Wrap up

- ☐ Tell the group how much you enjoyed working with them on this project
- ☐ Suggest they have fun being designers over the next few weeks
- ☐ Encourage them to look out for where apps might be useful in people's lives
- ☐ Tell them what the next project will be (if you plan to do one)
- ☐ Say thank you and tell them one thing you've learned

Final things

- ☐ Please take 1 minute to [email us](#) to let us know how this project went
- ☐ Share children's projects and tag us on [Instagram](#), [Twitter](#) or [Facebook](#)

Things to watch out for

This is a non-definitive list of things that can sometimes happen for a child when you're running a Design Club session – and advice on what to do.

Doesn't want to design for Richard

Explain that Richard is fictional and that children can let their imaginations run wild. Ask them what type of person **would** interest them and then show how characteristics of that person could be attributed to Richard.

Not happy to help Richard find good books

Explain that designers sometimes have to work with projects that don't initially seem interesting. Explain that it will be fun and that sometimes we learn most from things we think are boring. Tell them that next time they'll get to choose their challenge.

Spins into fantasy land

Sometimes a user profile contains time travel and a typical day involves unicorns. It's your call as to how you want to play this. This Starter project deals with an imaginary person to make things easier. The focus is on the design process itself and the creation of a clickable prototype. If the fantasy land is well-thought out and consistent then it might be fine to let them go with it.

Feels left out

Remind children that the best design teams are diverse and inclusive. The most important thing is that children enjoy sessions as much as possible. Ask what activity the child likes to do most and try to give them a role involving this. Sometimes a child might just want to sit there and look out of the window – that's also ok!

Doesn't have a device for prototyping

This is a common issue with younger children (Year 5s) who don't travel to and from school on their own, so are less likely to have their own phone. Flag this up as early as possible with the school. Many schools have a stock of tablets that can be used (ensure someone takes responsibility for making sure they're fully charged before your session). You can ask parents and teachers if they would mind lending a phone (an old one if possible) for the session. Alternatively, make do with your own and other mentor/helpers' phones. Give other children an activity to do while they're waiting.

Can't or won't settle

Volunteer mentors are not trained teachers which is why we strongly recommend that you ask to have a member of teaching staff present when you run your Design Club. They will help keep the room calm and can advise what to do if a child is being very disruptive. If one child regularly causes problems then discuss this with the school.