# Designing and developing digital outcomes: Exemplar 12





# Designing a road safety game

### **Annotation**

Through an iterative process of designing and developing a board game, the students show that they can:

- critically evaluate outcomes to determine fitness for purpose for the intended audience
- create original digital media content by selecting and using software tools and techniques
- · test and evaluate digital content to determine whether it meets its intended purpose
- store and share digital content using a range of cloud-based and local storage devices.

## **Background**

The students have learned how to design and create vector graphics for use in print and online contexts. They have also learned how to develop concepts by researching existing ideas, analysing their features, and evaluating their content to determine whether they will fit the intended purpose. The class has also been working on the skills they need to work collaboratively to achieve specific outcomes.

# Task

The students are asked to work in groups of three to design and develop a board game, using a range of digital-media tools and techniques. The game will be entered into the New Zealand Transport Agency's game design competition. In the competition brief, students are required to work collaboratively to make decisions about game design, goals, rules, and the design and development of game assets (logo, game pieces and game board). The students are then required to work independently to design and develop a specific game asset.

Ms Dunlop uses this task to observe and feed back on how each group works collaboratively to develop an outcome within a set time frame.

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# **Student response**

The following discussion between Ms Dunlop and one of the student groups covers their use of digital tools to develop and document a road-safety game for the competition.

Ms Dunlop: How did you work as a team to develop your game and the individual

elements of the game?

Ella: We all discussed the general design of the board game, including the theme,

how it would be played, the rules of the game and the design of the specific game pieces. Once we had decided on those main ideas, we were able to divide the tasks. Each person was responsible for developing a specific game piece – like the board, the logo, the cards or the characters.

Crystal: I co-ordinated the overall design and development of the game pieces -

I set up a Google Drive<sup>TM</sup> folder for everyone to put their designs in, and I checked in on everyone to make sure they were on track with their work. I was also in charge of designing and developing the logo, which I shared with the rest of the team so that the same look was applied across all

aspects of the game.

Kahurangi: I developed the game cards using the agreed theme of the game. We

wanted to make sure we used the same logo (Prickle in a Pickle) and colour scheme throughout the game, so I looked after this aspect. Once Crystal had created the logo, I could get this from the shared drive and use it on

my cards.

Ella: We had regular meetings around the project and discussed ideas, how the

game was developing, any issues and how we were going time-wise.

Ms Dunlop: What software did you use during the development of your game? Why did

you select it?

Kahurangi: We used Illustrator to create the logo, characters and other graphics such

as the board because it's a vector graphics software and has the tools we needed, such as the pen tool and the use of layers. We could export the graphics and make them scalable. It was easier to all use the same software as we were sharing work (like Crystal's logo). I set up a template for the cards – I saved the file as an .ait file – this way I could then use the template to design all of the cards. It's really easy to set up and save your work as a

template in Illustrator.

**Crystal:** I used Google Docs for recording the design ideas we had, including ideas

we got from our research on the internet. Google Docs was easy to use because it has more layout and font features for styling a document, and the others could ask questions or put comments in the document. For example, I inserted the logo design in Google Docs and shared it with the others and

asked them to make comments. It was much easier to do it this way,

Ella: I used Illustrator for developing my game pieces - I then exported them and

put them in a Google Doc for the others to comment on. I also put the final outcome in the Google Drive for the others to access. Illustrator gives you options for exporting your images, depending on what you want to do with them. I exported the games pieces as jpg files - I also saved them as PDF files to drop into the drive for the others to see and comment on.

Ms Dunlop: Did you just start designing your game, or did you do some research first?

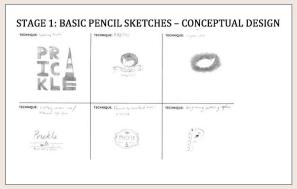
We researched games for children and games about safety. We brainstormed Kahurangi:

> different ideas and then created concept sketches for the characters, the logo and other assets. We did colour and font research too. All of these ideas

we put in the Google Drive so that we could comment on them.

Ella:

I found I was able to work at home on this project as everything I needed was in the Google Drive. If I had an idea about a game piece, I could do it in Illustrator, then export it and put the image in a Google Doc for the others to see. It saved having to be at school to get their feedback.





Ms Dunlop: How did you make sure your game worked and was fit for purpose for the

intended audience?

**Crystal:** We tested the game on five primary school children (boys and girls).

They all enjoyed the game and told us a few things we could do to make it better. They suggested we add more characters to the game so that more people could play. We thought that was a good idea, and it's something

that's easy to fix.

Ella: Our research showed that a good game has some kind of reward system,

so we incorporated that idea into our game. We made it so that if the player

answered a question correctly, they earned a token.

**Kahurangi:** We also trial-printed aspects of the game to make sure the colours were

right and came out as we expected. Like when I printed the cards, I had to make sure they were all the same size, the logo was clear and the text was

easy to read.

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