

## IDENTIFYING YOUR CHALLENGE

The first step is to define the problem or opportunity you want your design to address. It helps to set the goal you want your design to deliver and any factors you will need to consider. By the end of this step you will have:

- Created a team of 4–6 people, or chosen to work on your own.
- Identified a challenge of interest to you or your team.
- Understood the context of the challenge you will tackle.
- Considered the functions required for your design to successfully address the challenge.

### STEP ONE

What would you like to improve in your school or community? Some ideas might include:

- Improving the physical buildings and the way they are designed.
- Thinking about how energy is generated or light enters different rooms.
- How people (or resources) can move around the school more efficiently.
- Storing and using water more effectively.
- Eliminating/reducing toxins in products/the environment.
- Reducing greenhouse gas emissions.
- Increasing the well-being of users.

HINT: creating a mind map can help focus your ideas.

**What is your challenge?** *(provide a general description of the problem)*

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### STEP TWO

A good design needs to be specific.

a) Frame your challenge. Give a simple explanation of what you want your design to achieve or do by completing the following:

**The challenge my design will solve is:** *(add a description of the problem)*

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**To solve this challenge, my design will:** *(describe what your design will do to solve the problem)*

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b) Consider the context.

**Describe some of the factors that are important to consider:** *(location, users, climate, resources)*

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c) Design question. Using the information above, write your challenge as a question. Be careful to describe clearly the different elements if necessary. E.g.:

- how can we make urban cyclists more visible to drivers at night?
- how can we keep buildings cool in summer?
- how can we keep people moving through narrow spaces?

**How can we...**

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d) Describing the functions. Think about the functions (what it does) your design solution will need to do to address your challenge. E.g.:

- generate its own energy
- store water
- communicate with users
- encourage cooperation

**Functions:**

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