How to stop a fatberg

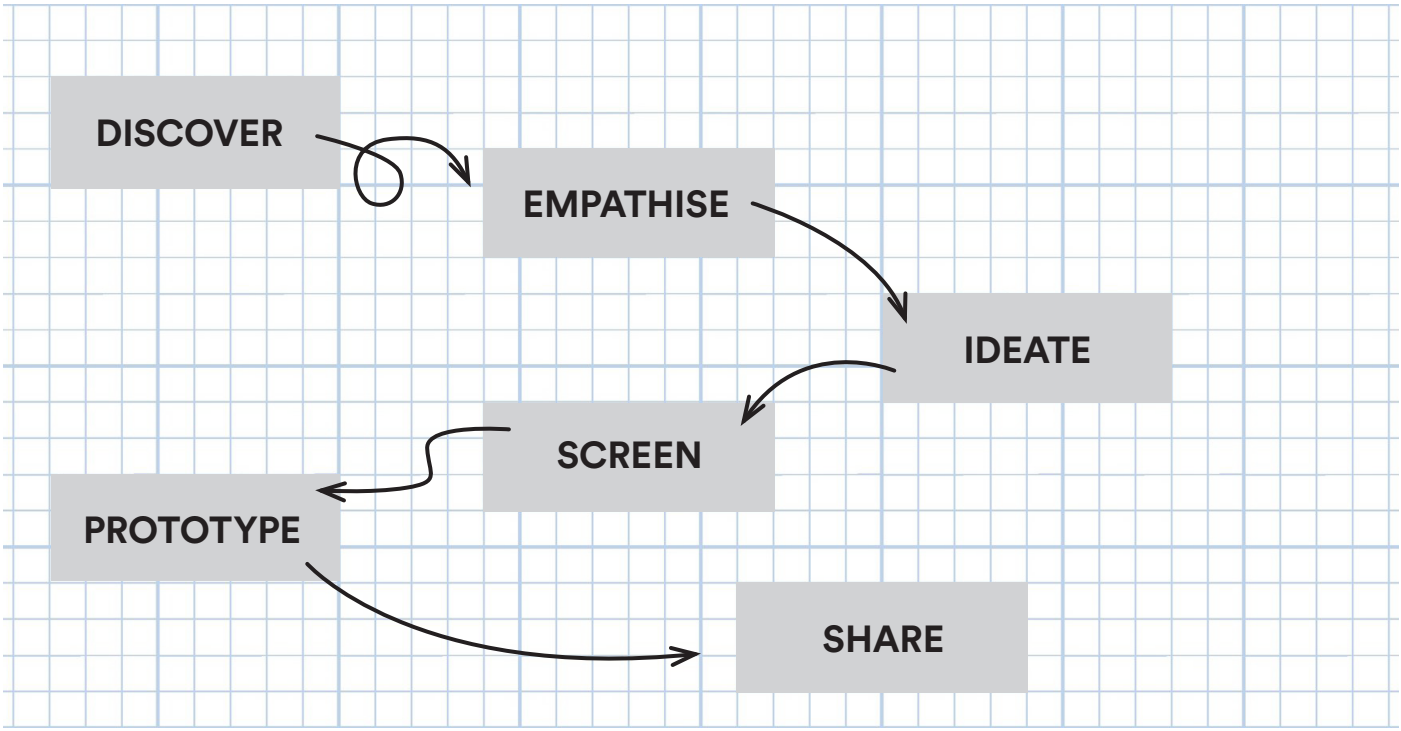
What is a Fatberg, and how do we stop them? Get a little gross, dive into the sewer (metaphorically!) and learn more about this problem under our city.

In this activity, you will apply the design cycle to create a solution to combat this problem and help make our city more sustainable. Find out why Fatbergs are an issue for water companies and our planet.

What you need

- Texters
- A stack of sticky notes (post-it notes)
- 1 sheet of butchers' paper
- Resources to build models, e.g. sticky tape, glue, elastic bands, cardboard, corks, ice cream sticks, fabric, bottle lids, beads, etc

The Design Cycle



What to do

Part 1 – Discover

What does the word fatberg remind you of?

Watch the Museums Victoria video presented by your teacher to learn about what Fatbergs are, where they are found, what they are made of and why you would want to put one in a museum!

The video follows the journey of one Fatberg from Lilydale to the Melbourne Museum where it is installed on a plinth in the Gut Feelings exhibition. Along the way you will delve into the workings of the sewer system, look at how Fatbergs are formed and what are the social repercussions and implications of this phenomenon.

Part 2 – Empathise

Write one fact, issue, problem or piece of information from the video on a sticky note.

Combine your collection of stickies into a class map. You will now have a visual map of the topic to explore.

Some themes you might like to organise your stickies into are:

- What fatbergs are
- Where fatbergs come from
- How fatbergs are formed
- What impact fatbergs might have on society
- What impact fatbergs might have on the environment.

Part 3 – Ideate

Define and narrow down the topic into an achievable problem statement. The problem statement often defines the direction of your ideation.

Some possible problem statements could be:

- “How might we use education to stop fatbergs forming?”
- “How might we design a physical device to catch and eliminate fatbergs?”
- “How might we design a product that reduces the problems associated with wet wipes?”

Divide into teams of two or three. Write your team’s problem statement in the middle of a big sheet of paper. Set a timer for 10 minutes and brainstorm 50 solution ideas. Record them on sticky notes and paste them around your problem statement.

Part 4 – Screen

Analyse your ideas to pick your top solution. Use these guiding questions to check which ideas would be most successful:

- Is the idea specific to the problem statement?
- Is the idea useful?
- Is the idea achievable?
- Is the idea innovative?

Elaborate on your top idea using a drawing or a sketch to communicate this idea to the class.

Plan a two-minute pitch you might make to interested individuals and possibly industry and organisational representatives.

The format of the pitch should include:

- The problem statement they defined
- Some ideas they considered
- The solution they are promoting

Present your pitch!

Reflect: while listening to others' presentations, reflect on something you like, a thoughtful question and a positive suggestion to the group. Be ready to receive and share your constructive feedback with others.

Part 5 – Prototype

Design a poster, brochure, story book or model to communicate your design solution, taking into consideration the feedback you received from your classmates. Research any further information you may need.

Part 6 – Share

When the designs are complete, share your design solution to the class.

Questions

1. What did you learn about what should and should not go down sinks and toilets?
2. What did you find was the most rewarding part of this task?
3. What did you learn about the design process you followed to come up with a solution to stop fatbergs?
4. What did you learn about working in team?
5. What did you learn about yourself while completing this task?