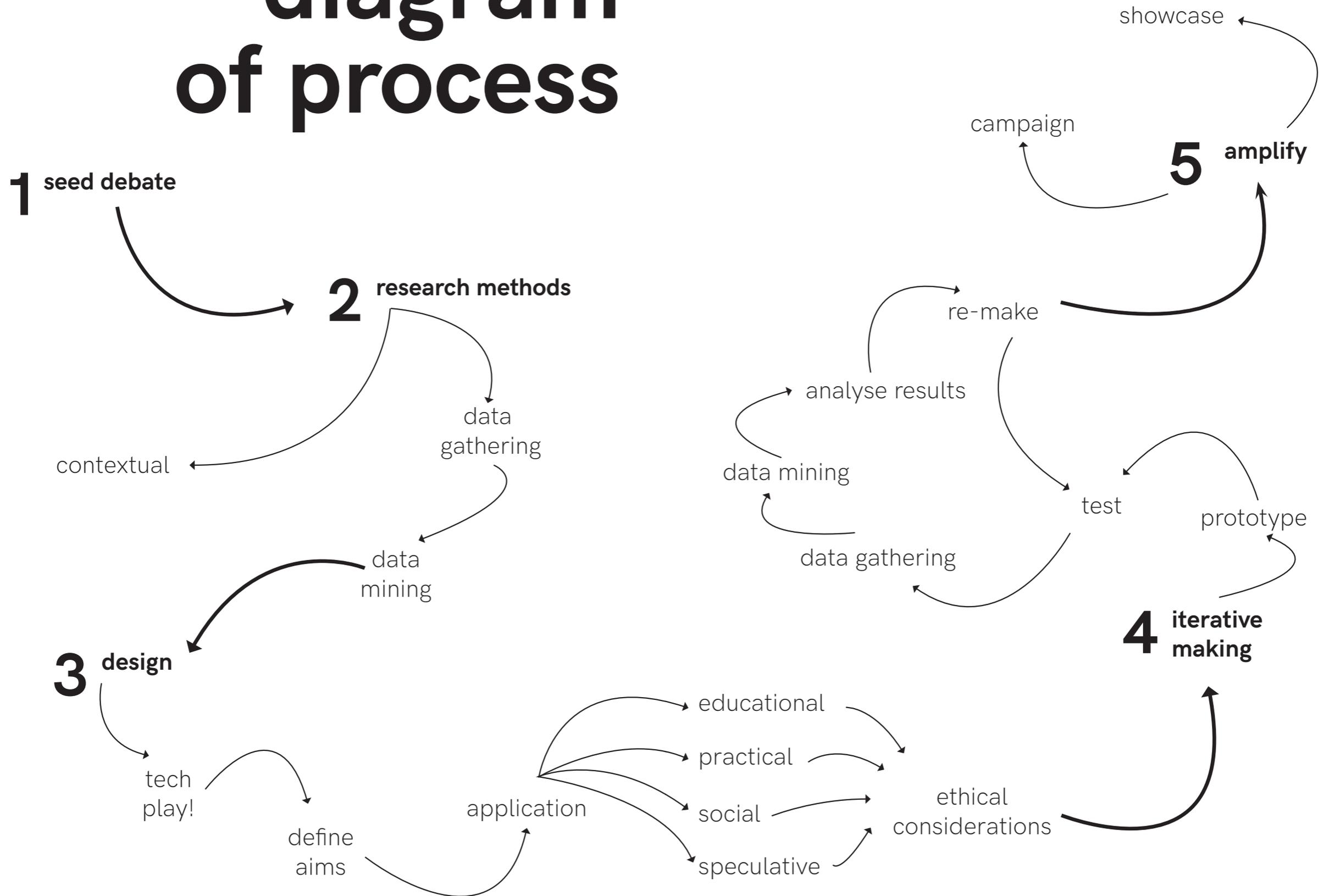


Climate
change

diagram of process



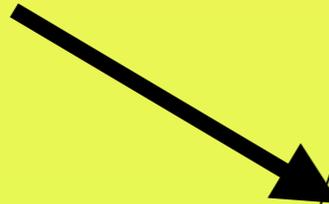
At Hillstone



1. Perceive the problem

2. Research the problem

**At STEAMhouse
with the Little
Inventors**



3. Designing a solution

4. Creating a solution

5. Presenting the project

1. Perceiving the problem

Chairing a discussion in 9 steps

Aims Taking turns to talk
Looking at the speaker
Building on another's idea

1 warm up An ice breaker to get the group thinking and talking together. (See page _ for more ideas)

This could be an object, a story, a poem or an image. Choose something that links to your project. The younger the pupils, the more a narrative might be helpful to guide responses.

prompt **2**

3 thinking time Encourage the pupils to take a minute of silent thinking time before volunteering any thoughts. Direct their thinking by asking them what they like/dislike. What is the object used for? Is there a lesson in the story? Silent thinking can be a challenge at first. Students can think in pairs if easier.

first thoughts **4** Individuals or groups have an opportunity to air their first thoughts.

5 creating questions

In groups, preferably of 4 or 5, students discuss the starting point and any issues it raises. From this they create philosophical questions linked to each of the concepts (see stage ii). They choose one to be presented to the group.

choosing **6** Questions, prominently displayed, are discussed, links made and ambiguities cleared up. The group votes on which one they would like to continue with.

7 first words

Students indicate how they feel about the question. For example they could stand in a line from yes to no, or they could offer thoughts independently.

main discussion **8** the dialogue is opened to the class. The role of the facilitator is to challenge, clarify and encourage students to focus on the question and to constructively agree or disagree with peers, building towards better understanding of the issue(s) discussed.

9 final words

Find out if their thinking has changed, would they answer the question the same?

Who are more important: animals or humans?

Should we care about the environment?

Can one person make real change?

Should we use aeroplanes?

Philosophical questions

Do companies have a responsibility to not use single use plastic?

Factories Burning Fossil Fuels

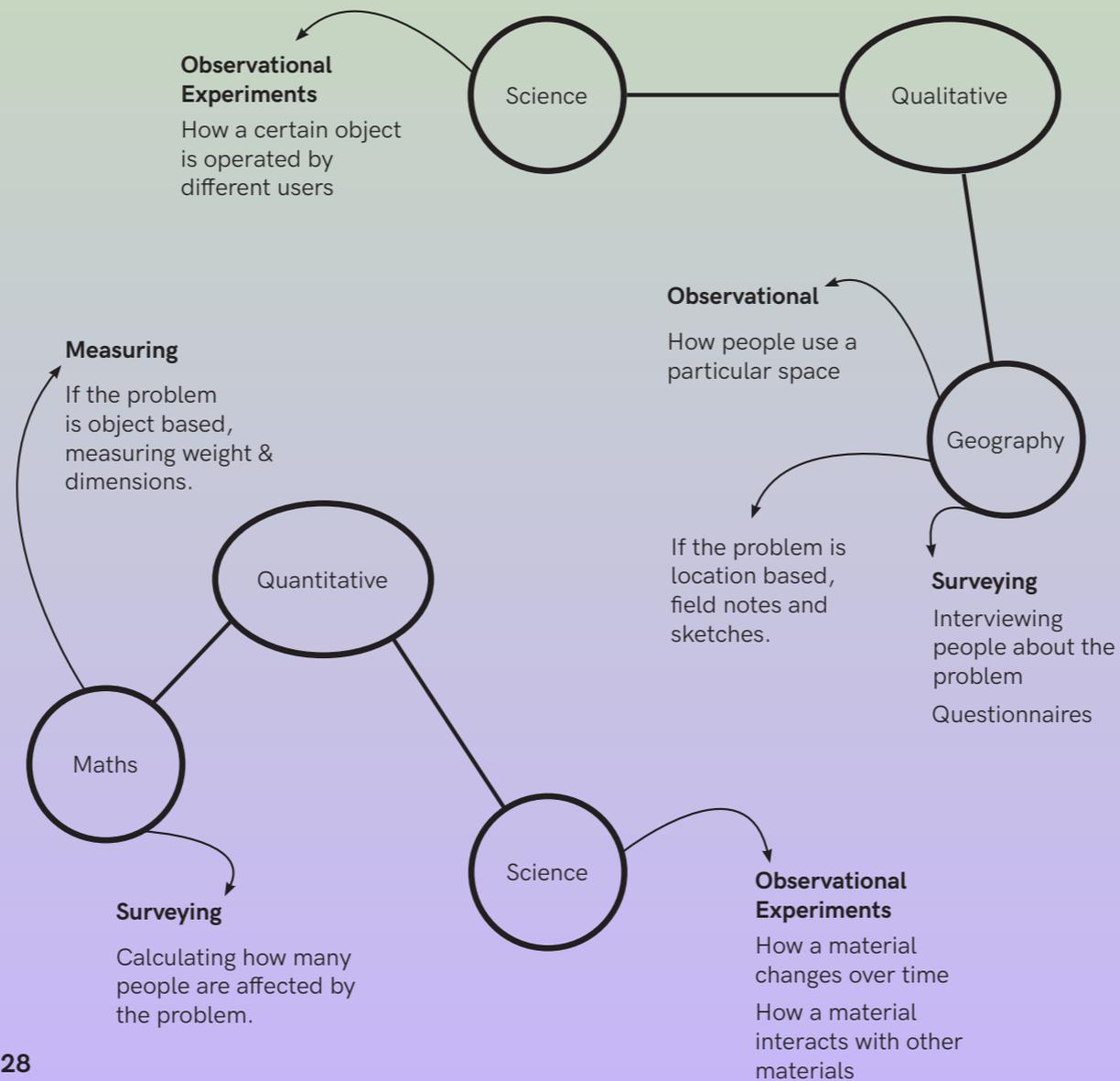
Is panicking ever the right thing to do?

2. Research Methods

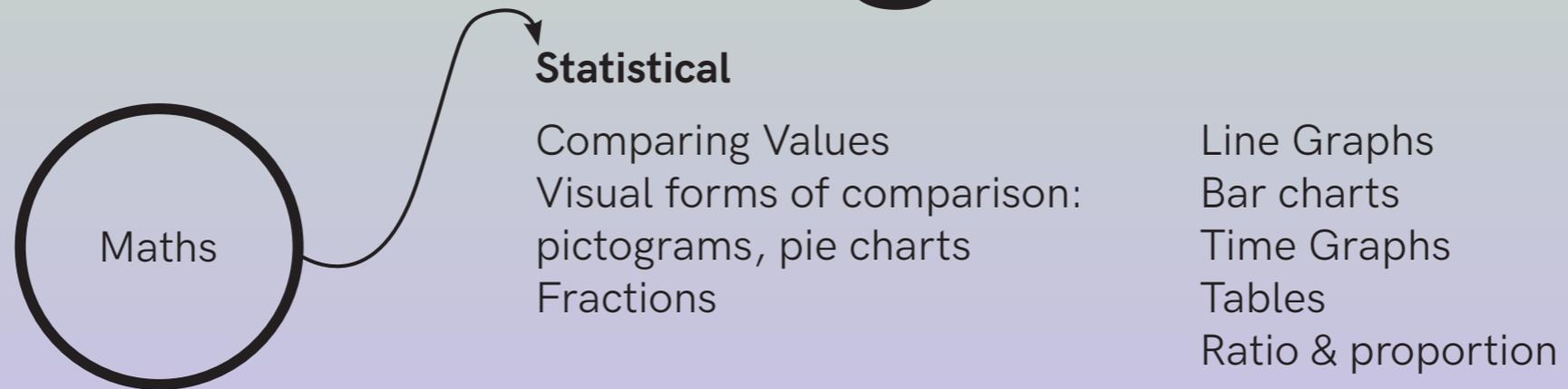
data gathering
& mining

research methods

data gathering

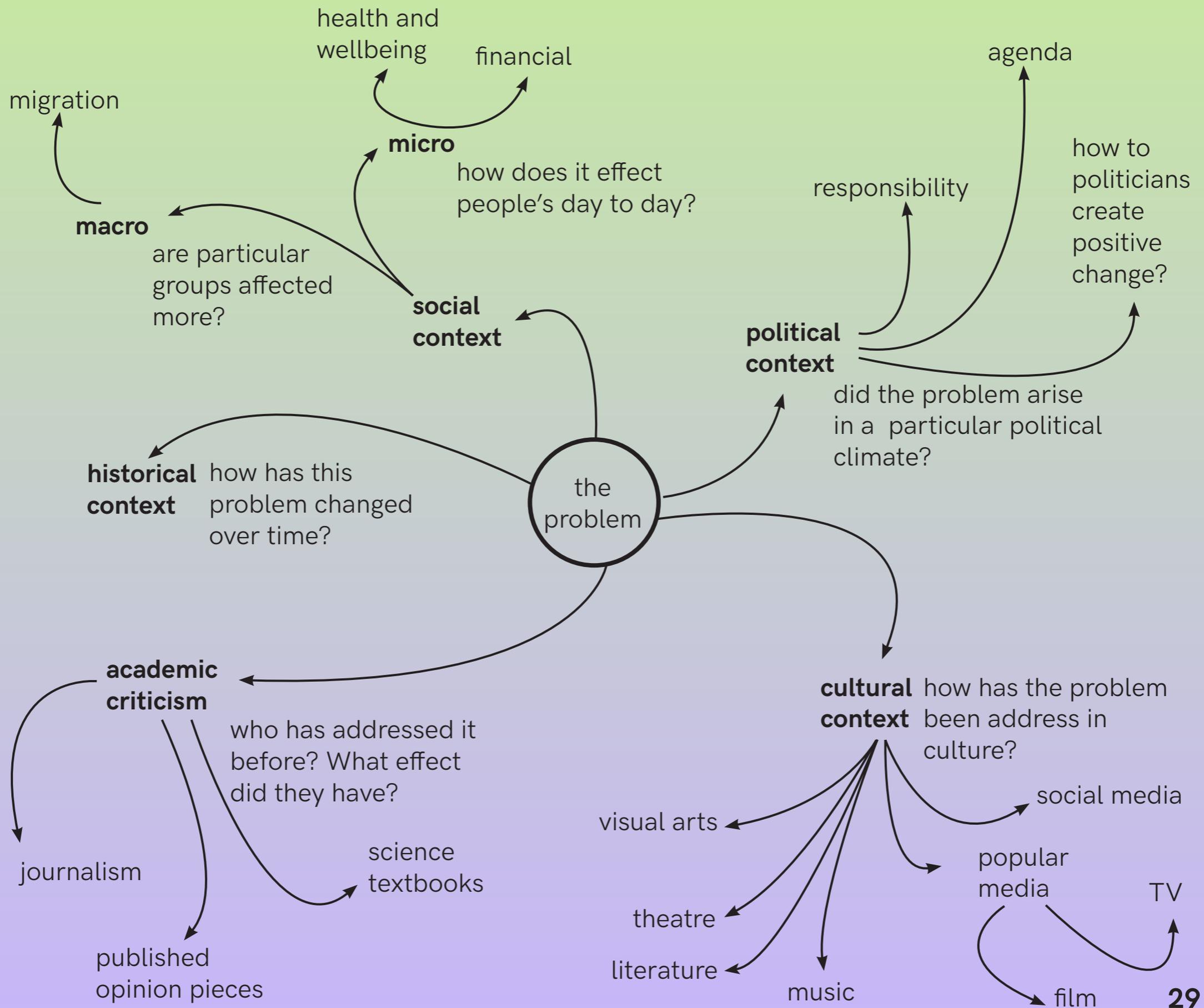


data mining



2. Research Methods

Contextual



Confronting High Street Shoppers with A Shocking Truth: Stacey Dooley Investigates



It's claimed that the garment industry is the second worst polluter in the world.

Dianna Cohen

Dianna Cohen is the co-founder of the Plastic Pollution Coalition, a group that addresses the pervasive problem of plastic pollution. She was inspired to co-found the group by her work as an artist -- because her chosen material is the ubiquitous plastic bag. She writes: "Having worked with the plastic bag as my primary material for the past fifteen years, all of the obvious references to recycling, first-world culture, class, high and low art give way to an almost formal process which reflects the unique flexibility of the medium."



https://www.ted.com/talks/dianna_cohen_tough_truths_about_plastic_pollution





Robert Smithson: Spiral Jetty <https://www.diaart.org/visit/visit/robert-smithson-spiral-jetty>

Robert Smithson's Spiral Jetty, located at Rozel Point on the northeastern shore of Great Salt Lake in Utah, is one of the most remarkable examples of Land art. In 1970, assisted by a crew operating dump trucks, a tractor, and a front loader, Smithson displaced some 6,000 tons of black basalt rock and earth from the adjacent shore to form a coil 1,500 feet long and approximately 15 feet wide, winding counterclockwise into the lake. Created at a time when water levels were particularly low, Spiral Jetty was submerged in 1972. Droughts caused the lake to recede in 2002, and the sculpture has remained visible ever since.

John Gerrard, Western Flag (Spindletop, Texas) 2017: midday



<https://vimeo.com/217000876>

The flag of John Gerrard's digital simulation work *Western Flag* (Spindletop, Texas) marks the site of the Lucas Gusher, the world's first major oil find in 1901, in Spindletop, in the middle of the Texan desert. Gerrard's flag is made of perpetually-renewing pressurised black smoke. The computer generated Spindletop runs in exact parallel with the real site in Texas throughout the year: the sun rising at the appropriate times and the days getting longer and shorter according to the seasons. The simulation is run live by software that is calculating each frame of the animation in real time as it is needed.

Western Flag symbolises our reliance on oil. It's everywhere, it is one of the forces behind climate change and yet it remains invisible. In an interview with the *Irish Times*, Gerrard describes oil as a "dynamic that allowed for a very particular change in society, allowed for hyper-mobility, changes in food and agriculture. Much of what we think of as 'real' is a petroleum reality. Heat, comfort, mobility, it all comes from petroleum."

Important Dates

SESSION ONE

Friday September 27th

Times TBC

Introduction to Little Inventors

Challenge

Warm-up activities thinking
about energy

Idea Generation

Early Low-fi Prototyping

SESSION TWO

Tuesday 22nd October

Times TBC

Further prototyping

Presentation of projects to
'panel'