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Just Maps: the Handbook

Schools strenghtening global citizenship by mapping local communities

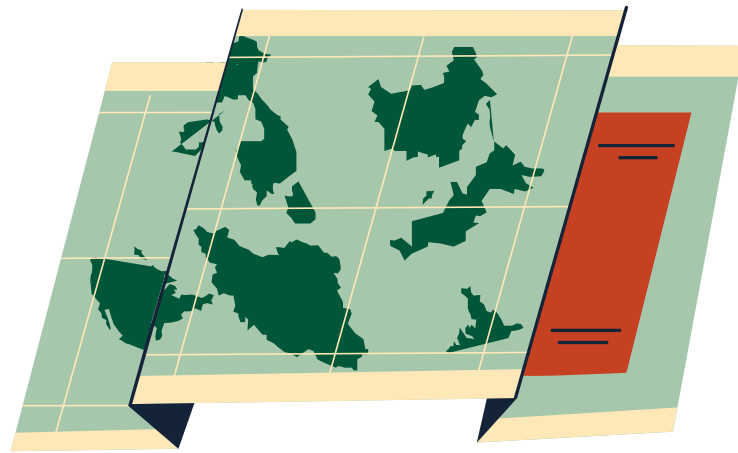


GLOBAL
ACTION
PLAN



Part 1

Introduction to participatory mapping



What are maps?



What is participatory
mapping?
What is it for?



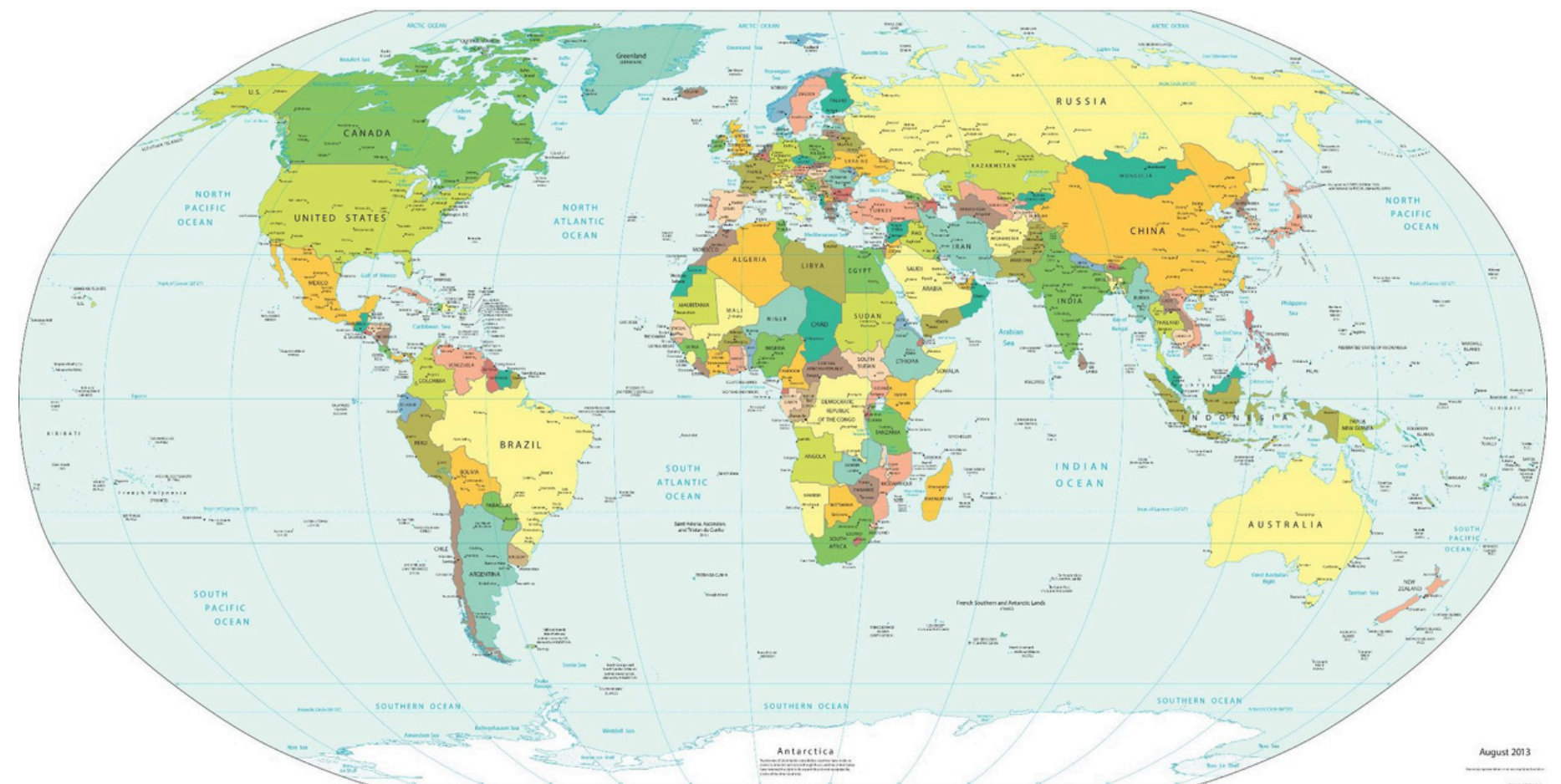
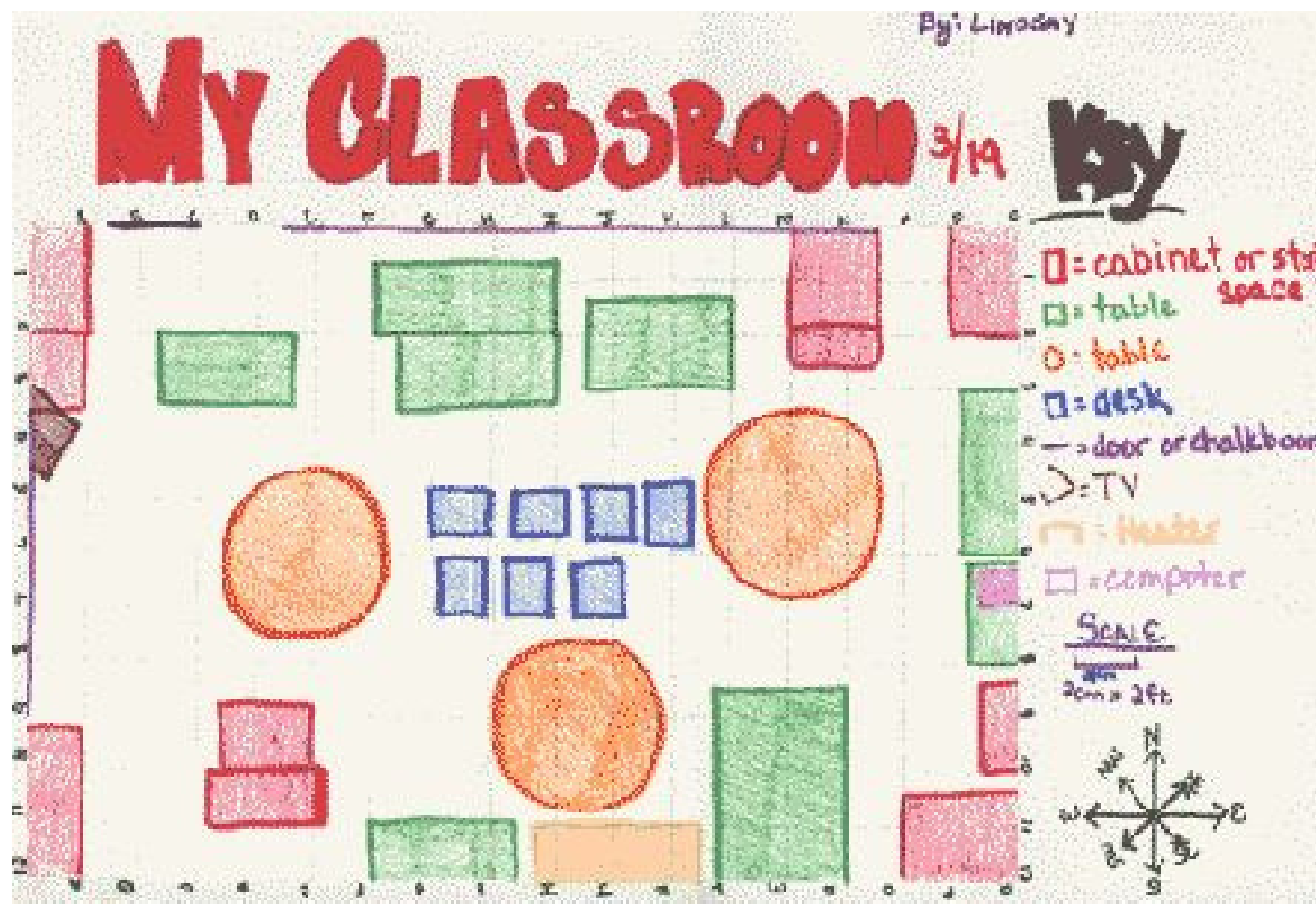
What is important
to consider when
facilitating
participatory
mapping?

Part 1 - Introduction

What are maps?



Maps are **visual representations of geographical areas** (from areas as large as the entire world to areas as small as a classroom desk).



Part 1 - Introduction



What is participatory mapping?

- a **process** where community members/specific groups actively participate in creating maps
- Reflects **local** knowledge, experiences, and priorities and responses to issues.
- Leads to **new understandings** and **appreciation** for local environments
- **Develops skills:** problem solving, critical thinking, collaboration and communication.



Why do participatory mapping with children?

Children are:

- the longest-term **stakeholders** in society (Badham, 2002).
- current and future **residents**, citizens and social actors of their localities
- **end-users** of our public spaces and places, commuters, consumers and socialisers. (Usher, 2020).
 - should be afforded the opportunity to shape their own futures and those of their communities (Winters, 2010).
 - Be involved in decision-making (Oduwaye 2006)



Part 1 - Introduction



Participatory mapping for social justice

To use mapping as a tool to learn about and work for **social justice**, we must:

- Engage with the **marginalised** in our local communities: the homeless, migrants, people with disabilities, people experiencing poverty.
- Map **climate & social concerns** and risks based on the priorities of the people we talk to.
- Be open to representing **other kinds of knowledge** and data than formal maps. For example, stories, lived experience, and traditions.
- Challenge those in power to **act** on the ideas generated by the mapping process.

Part 1 - Introduction

What issues can participatory mapping address?



FOSSIL FUELS



Who in our community is burning fossil fuels?

Why? Who has adapted to green energy? How?

ACCESS TO GREEN SPACES



Who can visit parks?
Who can't? Why?

AIR POLLUTION



Where is the air clean?
Why? Where is dirty?
Why? What are the consequences for people?

Part 1 - Introduction

What issues can participatory mapping address?



FLOODING



Where is vulnerable to flooding? Where has adapted? How will this affect people?

HEAT



How can people stay cool during hot weather? Are these options available to everyone?

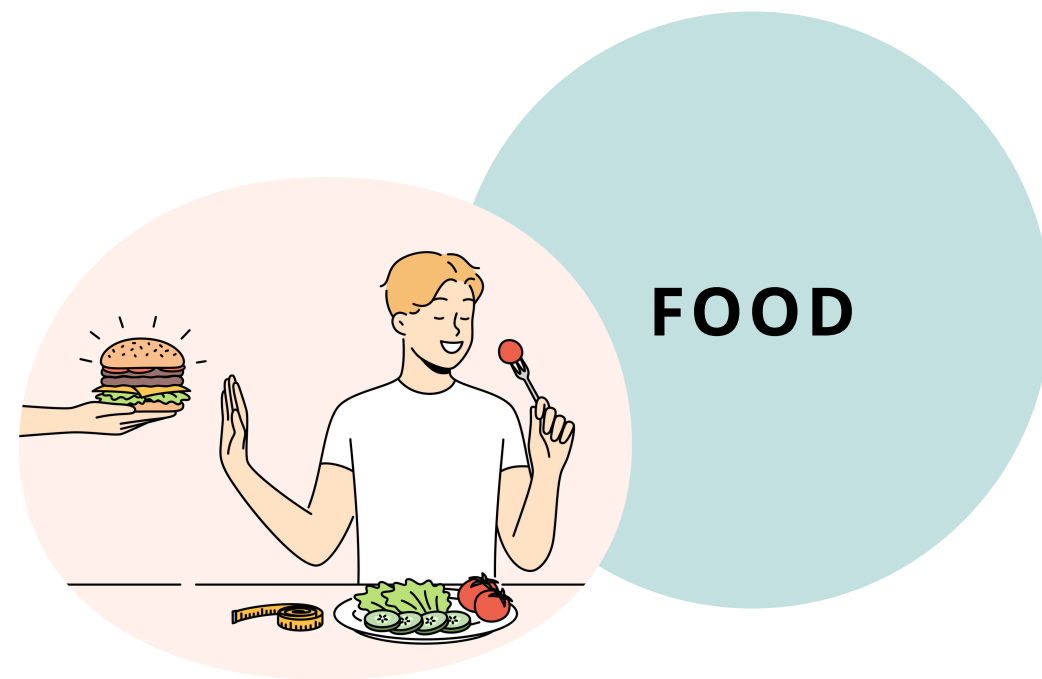
PUBLIC TRANSPORT



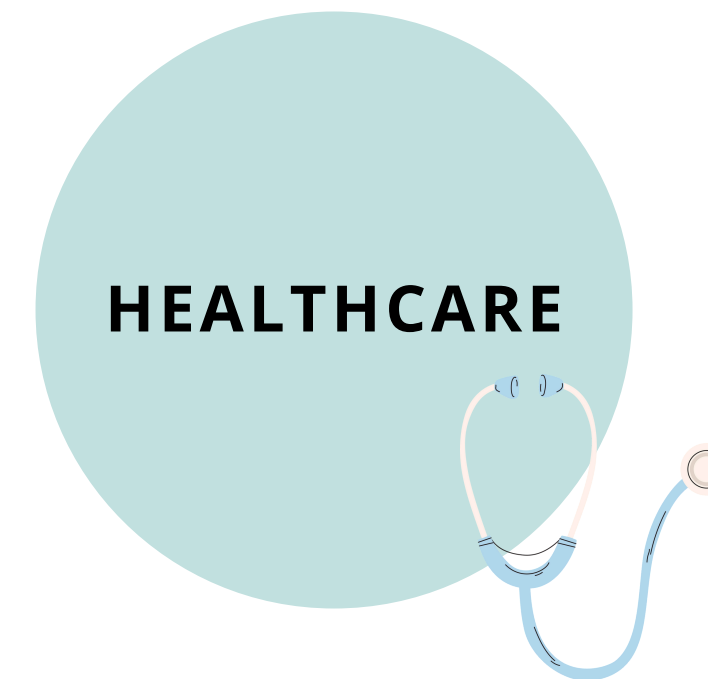
Who can access public transport? Who can't? How does this affect their lives?

Part 1 - Introduction

What issues can participatory mapping address?



Who has access to
healthy options?
Where is food
produced locally?



Where can people
access healthcare?
What options do they
have to stay healthy?

Part 1 - Introduction

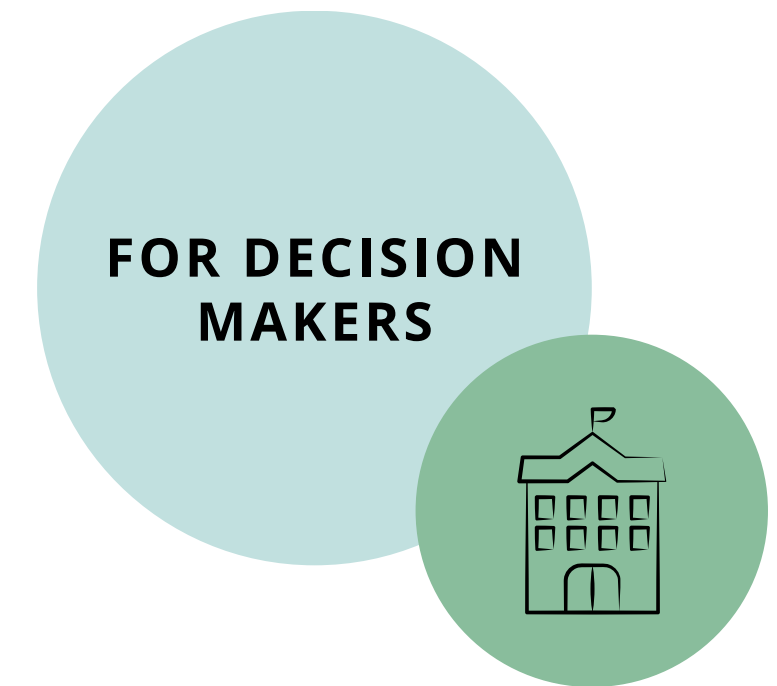
Benefits of participatory mapping



Skills & Competencies
Knowledge
Self-confidence
Sense of belonging



Broader community
engagement and
better outcomes for
all



Greater buy-in from wider
community, better end results in
terms of addressing needs and
concerns, fulfilling their
responsibilities and obligations

Part 1 - Introduction



Barriers to participatory mapping

What are some of the challenges that educators face when doing participatory mapping with children?



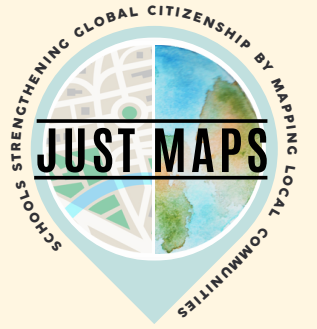
**PERCEPTION OF
CHILDREN'S CAPABILITIES**
(ADULTISM)



INSTITUTIONAL BARRIERS
(Interpretability
Language barriers
Time Constraints
teacher/decision maker capacity)

Mapping Task 1

Messy Maps!



Task

Create a 'messy map' or a 'junk map'. Use LEGO bricks to represent the room you are sitting in right now.

A 'messy map' involves children working together to create a visual representation of a place using a variety of objects to represent different features. You can decide how to position the LEGO pieces to represent features and locations of these features as accurately as possible.



Part 1 - Introduction

The importance of a scaffold in a map



Scaffolding is crucial in mapping. It provides support to children in learning and understanding spatial concepts. A satellite image can be a good scaffold as it provides scale and objects' relative locations to help children create their own version.

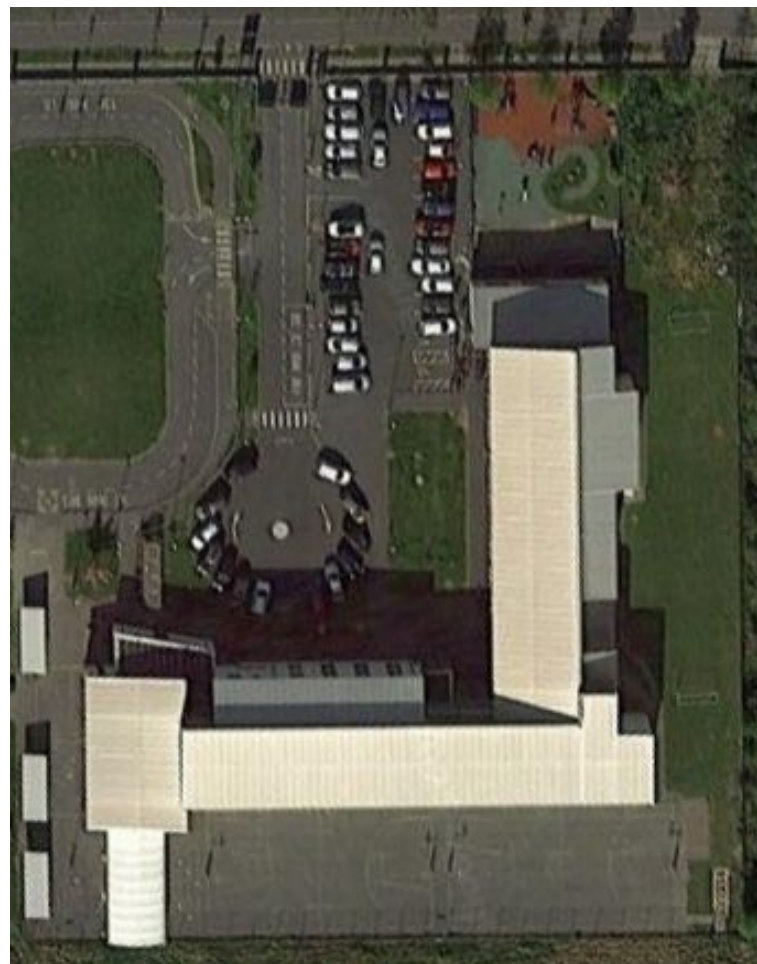
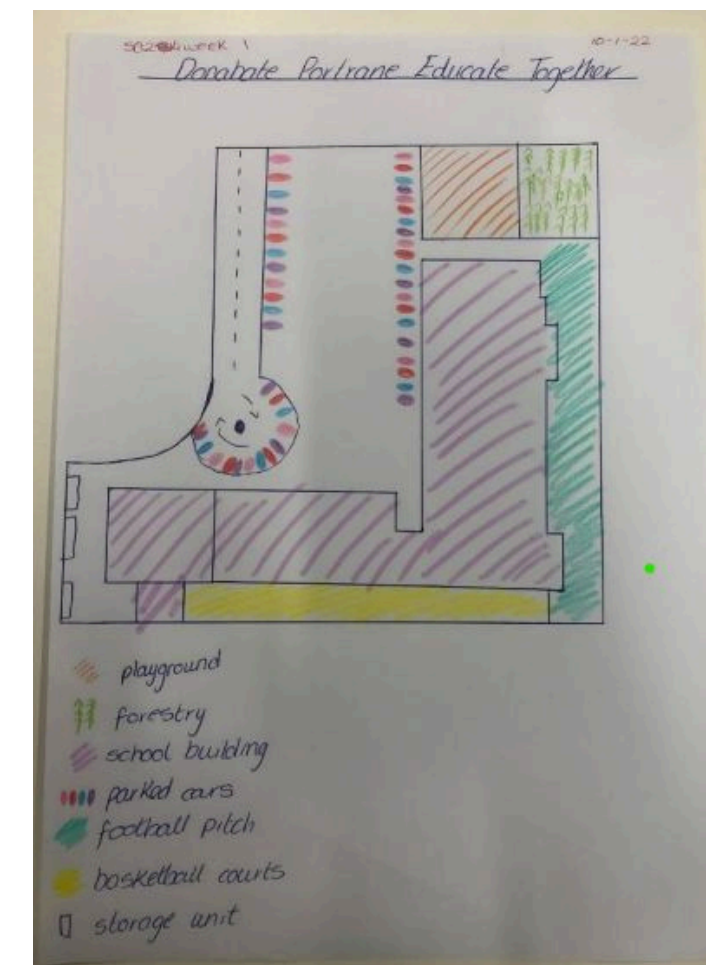


Image 1 is a satellite image of a school and image 2 is a map some children drew from the scaffold.



Part 1 - Introduction

Five elements of maps

(Catling, 2003)



Perspective

View that map is taken from
(aerial or bird's-eye perspective)



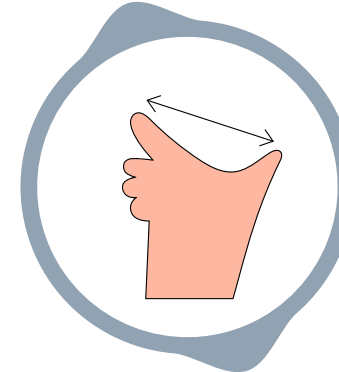
Direction

Relative directions such as
'left', 'around', 'through', etc.
and cardinal directions
(northeast) etc.



Scale

Allows places to 'fit' onto a
map and represents size of
features/places accurately



Location

Stating where features are on
maps and finding your way
(locational language such as
'beside', 'behind, etc. to more
complex grid references) -
linked with maths



Symbols

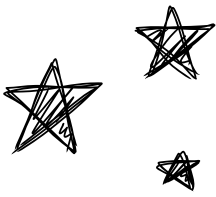
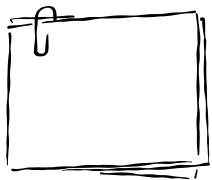
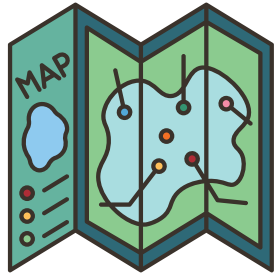
Including shapes, lines
and colours to show a
variety of features and
routes on maps



Part 1 - Introduction



Different types of maps

- Sketch map A hand-drawn sketch of a map with three stars of varying sizes.
- Annotated map A simple line drawing of a rectangular map with a small clip or paper fastener at the top left corner.
- Dot map Three solid black dots arranged horizontally.
- Annotated aerial photographs A stylized illustration of a folded map. The map shows a blue area with white lines and red dots, representing a geographical area with specific points of interest.
- Google Earth The Google Earth logo, which is a colorful, stylized pin or location marker.

Part 1 - Introduction

Sketch map



Sketch maps are drawn on sheets of paper with pencils and colours.

Benefits

Cheap materials

Child-led

Relatively easy-to-do

Collaborative

Visual and creative



Part 1 - Introduction

Annotated map



Children (girls aged 14/15) annotate the map and add photographs (taken by themselves) to show safe areas/unsafe areas, dangerous crossing points, places for potential new play parks, identifying issues such as a “lack of food options”, litter blackspots (broken glass, dog poo, etc.).



Part 1 - Introduction

Dot map



Map 1: Children use colour-coded dots to map safe and unsafe areas of their locality.



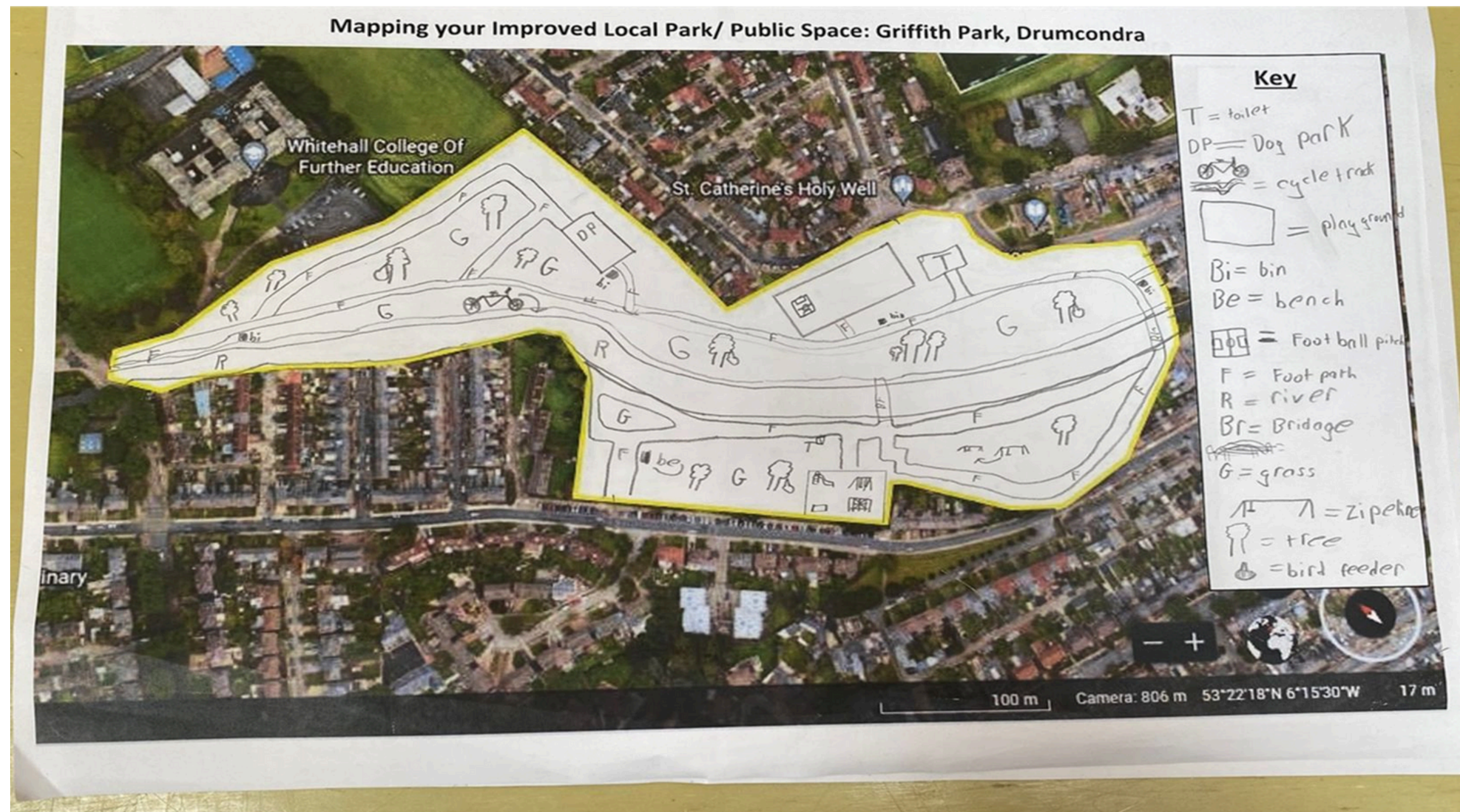
Figure 2 School map of safe and unsafe locations. Source: FGs 2014.

Map 2: Disabled children map safe and unsafe areas of their school during an earthquake using a legend to identify the meaning of colours (Aotearoa New Zealand)

Part 1 - Introduction

Annotated aerial photograph

Children draw & write over aerial photos of the place.



Part 1 - Introduction

Google Earth



Children create Google Earth Projects dropping pins, adding photos, videos and descriptions to clearly communicate ideas.



Mapping Task 2

Mapping your room



Task

Draw a map of the room you are in right now similar to the one on the previous page. Keep in mind the five elements of mapping.

Now compare it to your Messy Map from Task 1.

How is it different?

How is it similar?



Part 1 - Introduction

The role of teachers

Supporting students' AUTONOMY.
Here are some roles you might occupy as a teacher:



PLANNING	INITIATING	ORGANISING	ENCOURAGING	INSTRUCTING	ASSESSING
What are students' skills? What might be difficult? What might go wrong?	Where do we start? How can we generate interest? How can we brainstorm new ideas?	Who's working together? Who is responsible for what? What resources are available?	What's difficult? What other ways can we approach the topic? How can we motivate everyone?	What media might we use? What is the framework of the project? How can students analyse or synthesis their data?	What's currently happening for students? What are they understanding or not understanding? How will students evaluate their work and each others'?

Part 1 - Introduction

Summary



MAPS CAN LOOK AND BE VERY DIFFERENT.

Tips:

- **Uniformity** is important for communication:
- **Base maps** (or satellite images) are useful
- Use **clear** and **agreed-upon symbols**
- Have **a key** to explain everything to a reader
- It is easier for children (and adults) to map places they are familiar with from their own lived experiences -ethnogeography or everyday geography

Discussion question

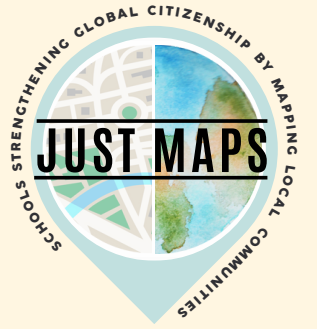


Why should we map?



Reflection task

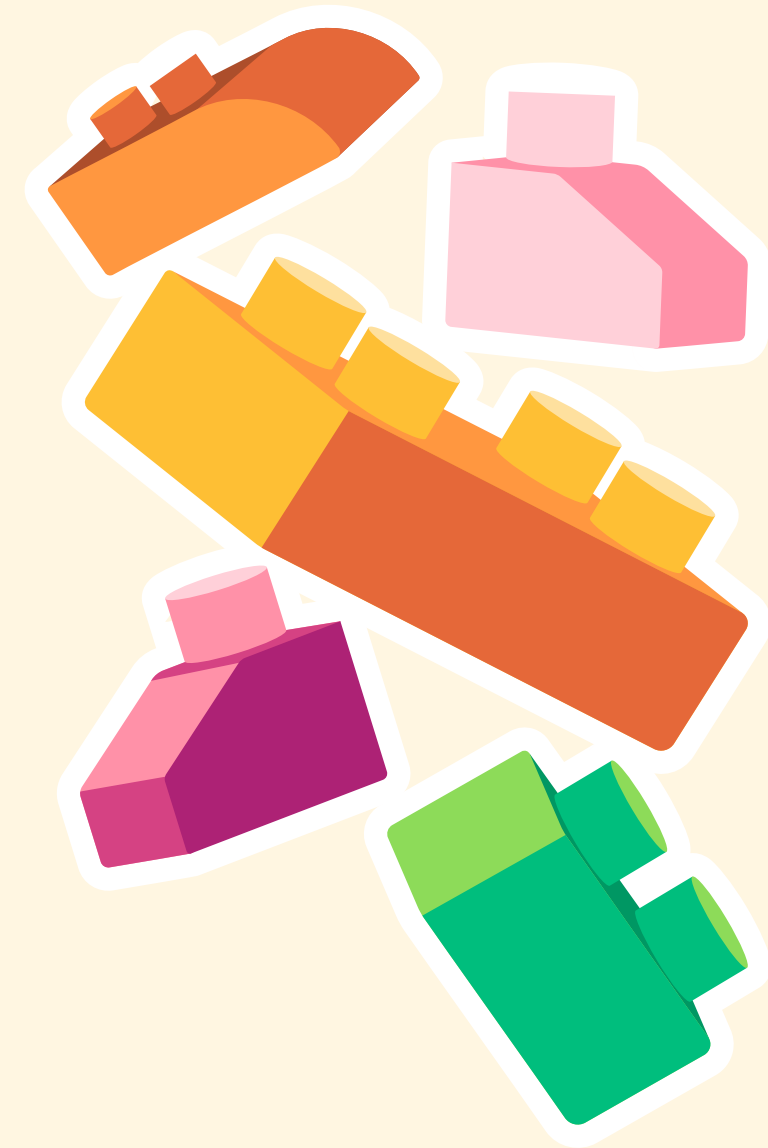
LEGO



Task

Use LEGO to reflect on the learning from this part. Build a model that answers one of these questions:

- What will you take away from this training?
- What did you disagree with?
- How do you feel about participatory mapping?





Part 2

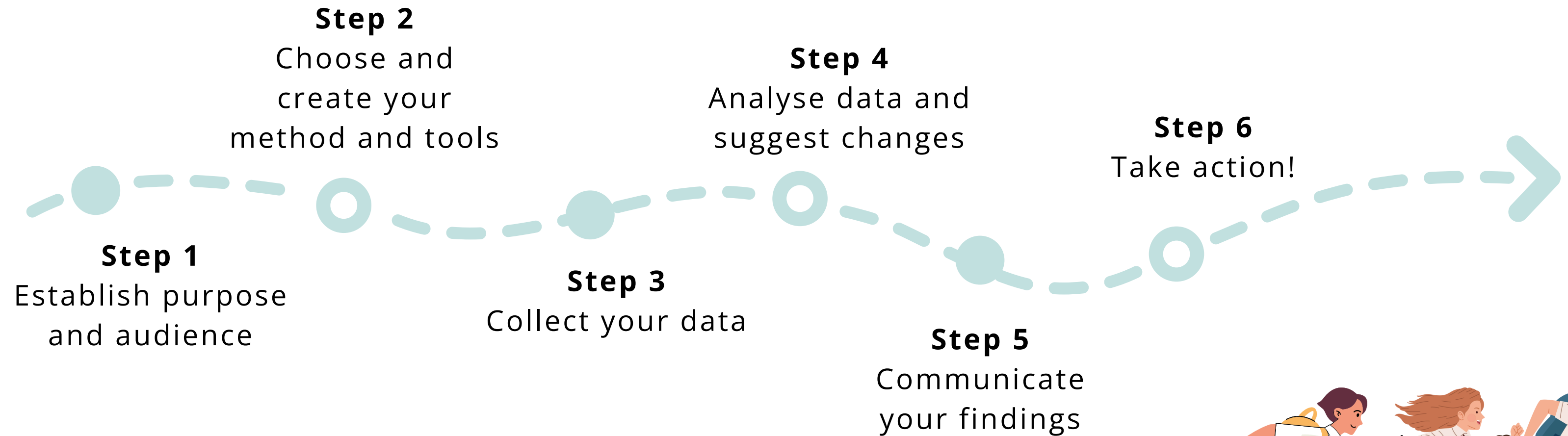
Doing Just Maps

Part 2 - Doing Just Maps

The steps



A Just Maps project involves 6 distinct steps:



Each of these steps might take one lesson or a couple of weeks.

It's up to you, the teacher!



Part 2 - Doing Just Maps



Step 1

What is your purpose?

Just Maps aims to help students **assess their local areas** for **social justice, sustainable development** and **climate action** challenges and opportunities.



Questions to consider before beginning the project:

What is really great about the place we live?

What challenges does our area face?

What issues do the students experience? How do those play out locally?

It's important to hear from your students what they experience and want to learn more about!

Part 2 - Doing Just Maps

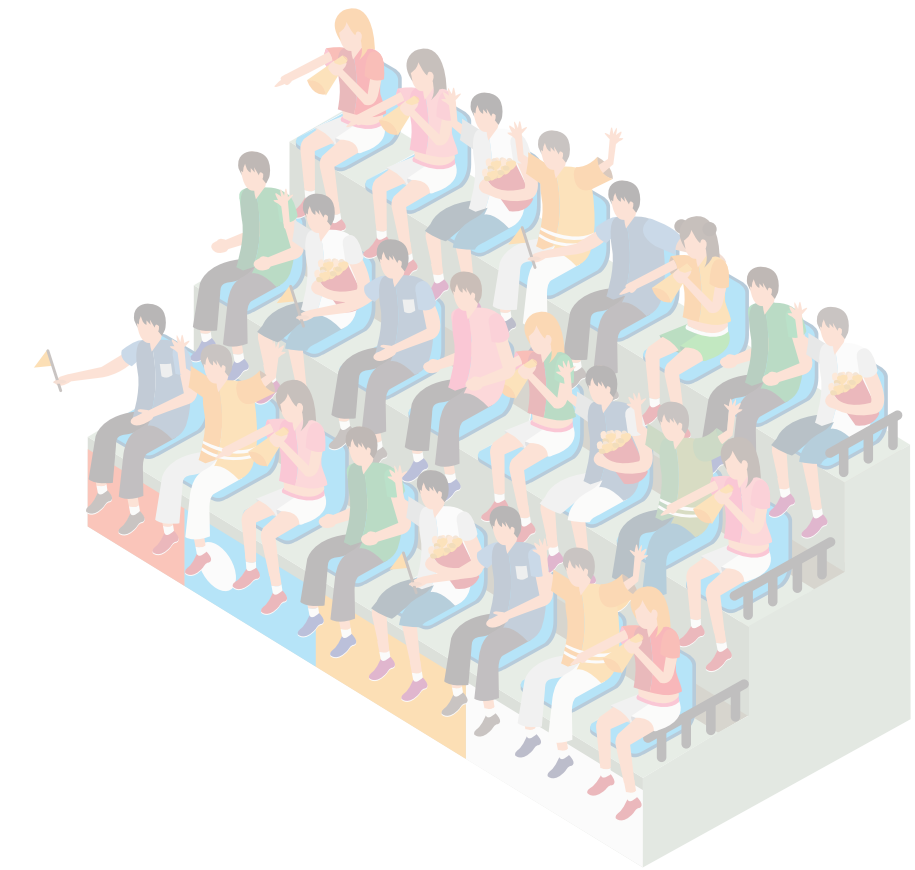


Step 1 - Defining your audience

Our end goal is to engage with **local decision-makers** (local politicians, national representatives, municipal workers and community groups) to advocate for change, using the student-created map as evidence.

Other stakeholders:

- students (ensure diversity)
- Community members and groups
- School leadership and colleagues
- Parents & parent organisations
- Local businesses and business organisations



Teachers should have an idea of who they will eventually communicate with so that the project can make the strongest case to them.

Part 2 - Doing Just Maps



In making a case for JustMaps, highlight:

- Participatory learning among students
- Potential to connect to and support local communities
- Positive publicity
- Connections with local decision-makers



Part 2 - Doing Just Maps



Step 1 - Engaging stakeholders

Questions for teachers to consider:

- What is/are our main enquiry question(s)?
- How will I enable children to ask questions?
- How will I stimulate questions / speculations / hypotheses?
- Am I working with a diverse range of students?
- Are any of my colleagues interested? What is my ask for them?

Questions to discuss with students:

- Who uses public spaces in our community? How do they use it?
- Who might feel left out of our community? Why?
- What other beings use/live in the space?
- What biodiversity is in our community space?
- How could our community space be improved to meet the needs of the entire local community?

Part 2 - Doing Just Maps



Step 2

Choosing methods and creating tools

Part 2 - Doing Just Maps

Step 2 - Tools



Maps need data, and lots of students' learning in participatory mapping will come from researching that data. Here are some tools that will allow students to create their data.



Surveys



Interviews



**Walking
observations**



Focus groups

Part 2: Doing JustMaps



Step 2: Tools

Google Earth

Children create Google Earth Projects dropping pins, adding photos, videos and descriptions to clearly communicate ideas.

Just Maps uses Google Earth for the final presentation of the map. This allows us to link together all of the maps that have been created on Just Maps - you can see all of the mapping projects to date [here](#).



Part 2 - Doing Just Maps

Step 2 - Methods and Tools



Part 2 - Doing Just Maps



Step 2 - Methods and tools

Questions for the teacher to consider:

- What resources will you/the children use to help answer the question/sub-questions?
- What data will the children gather/create to enable them to answer the question/sub-question?
- What skills are children developing in this research? What aspects of the curriculum does it link to?

Student preparation:

- Devise questions for interviewing members of the local community on:
 - how they use the space
 - what they like/don't like
 - suggestions for improvements.
- Collect data from other classes in the school on what they like/would like in the space.
- Research other community spaces for inspiration.

Part 2 - Doing Just Maps



Step 3

Collecting data

Part 2 - Doing Just Maps

Step 3 - Collecting data



Once you and your students have decided how you will collect your data, the next step is to go out and collect!



**Choosing
your
location**



**Talking to
people**



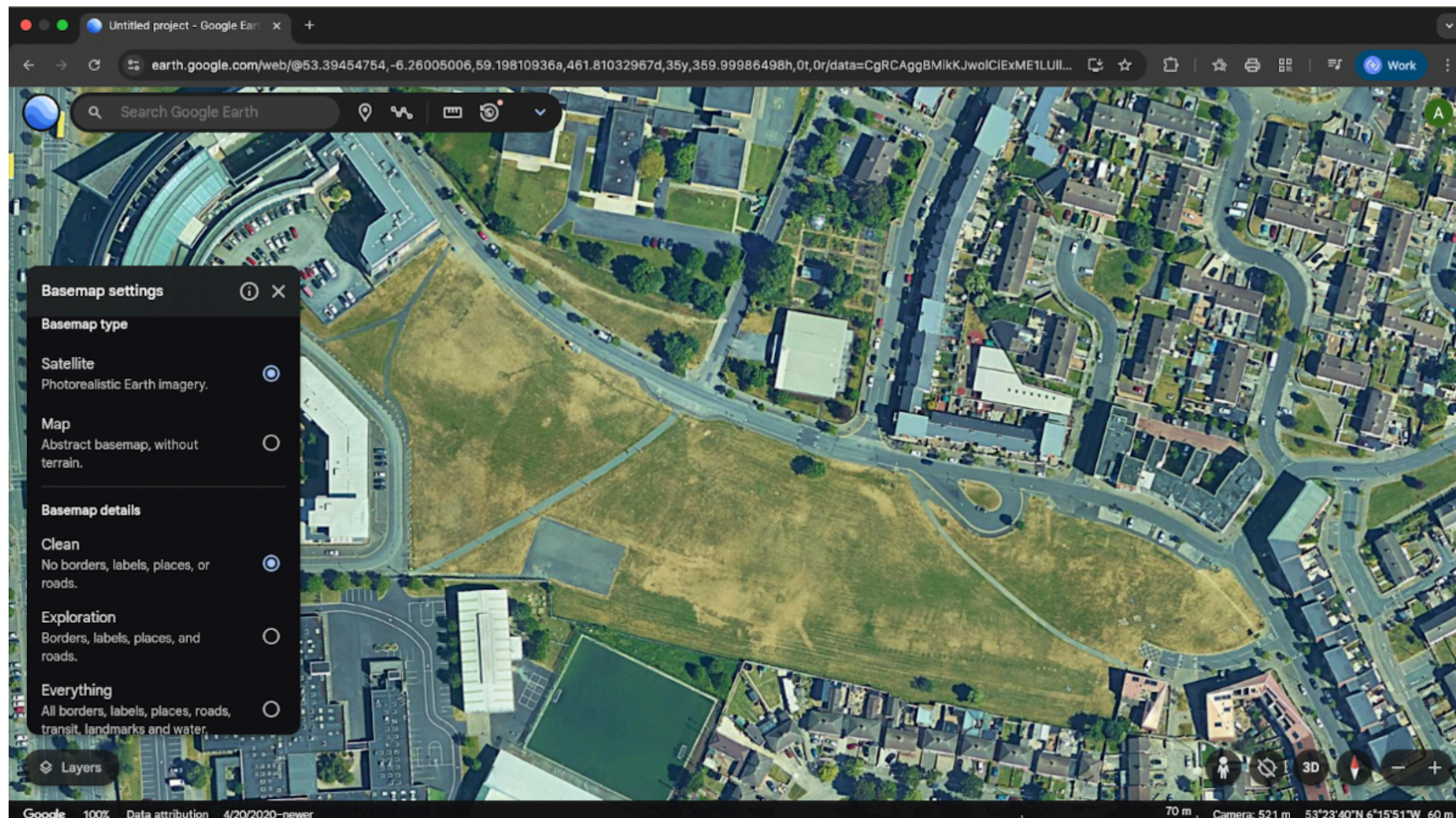
Observing



**Create a
blank aerial
photo for
observation**

Part 2 - Doing Just Maps

Step 3 - Creating a blank aerial photo for observation



1. Find the area you will be mapping on Google Earth. In the *Layers* menu (bottom-left), select *Satellite* and *Clean*, to give a birdseye view with no labels.

Part 2 - Doing Just Maps



Step 3 - Creating a blank aerial photo for observation

2. Zoom so you include the space you are mapping and a lot of the surrounding area. Take a screenshot of the area using:

- On PC, press Alt + Print Screen
- On Mac, press Cmd + Shift + 5. Adjust the area to include everything you want.



Part 2 - Doing Just Maps

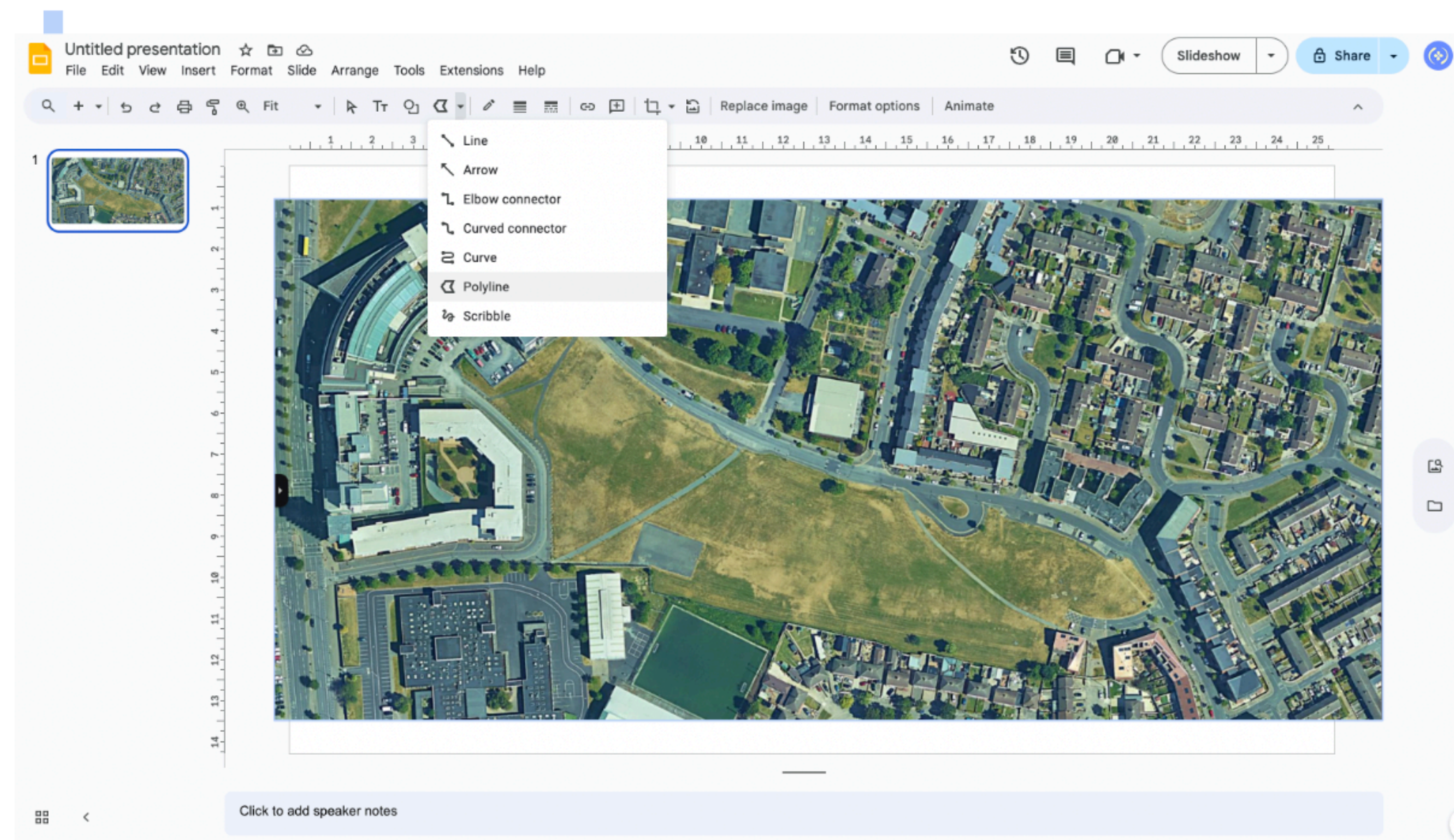


Step 3 - Creating a blank aerial photo for observation

3. Open a new Google Slides presentation. Put your image in.

- On PC, paste using Ctrl + Alt + V
- On Mac, use Finder to navigate to your recent images and drag it into Google Slides

4. From the Toolbar, click on the “Line” dropdown menu and select “Polyline”. Click around the area you want to blank out.



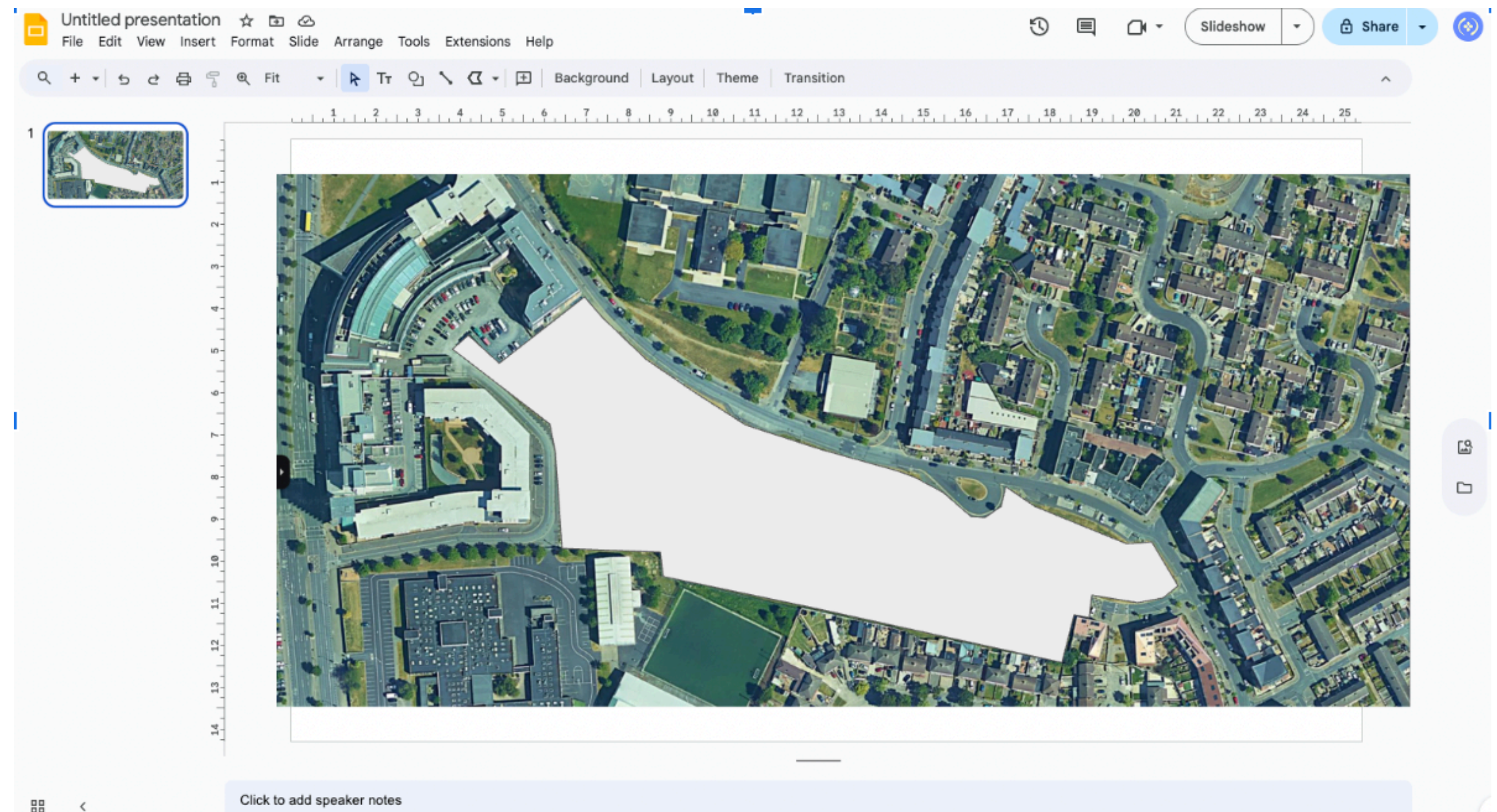
Part 2 - Doing Just Maps



Step 3 - Creating a blank aerial photo for observation

5. When you close the shape by clicking on the first point again, the selected area will become blank.

6. Select File > Print and either print directly or save as a PDF.



1: Using the blank map

- Observe map/aerial photo of our community space (map reading/observation)
- Identify features
- Consider and hypothesis how people use these spaces

3: Mapping

- Map and make note of any existing features/facilities in the aerial photo
- Map and make note of any issues/opportunities for improving the space
- Map natural features

2:Fieldwork

- Interview locals
- Observe how space is used and record findings
- Record existing features for different needs
- Investigate biodiversity and natural features of the space and potential for improving

Part 2 - Doing Just Maps



Step 4

Analysing data and suggesting changes

Collating Data

Collate findings and data from interviews and fieldwork

Consider scale of space and potential changes
(not everything will fit!)

Use your ruler and scale to be accurate

Charts & graphs

- If you did surveys, students will have evidence to support their suggestions.
- This could be a good time for students to represent their data in charts or graphs. These can go into their reports and presentations later.

Different perspectives

- Try to understand your data or your space from different perspectives. How do disabled people experience this space? How might it be different for very old people?
- What do different people have in common?
- Who is served well? Who is served less well?

Part 2 - Doing Just Maps

Step 4 - Analysing data



Questions for teachers to consider:

- How will the children use the resources / data to help answer the enquiry question / sub-questions?
- Link specific resource / data and outline learning activity that enables children to use this resource / data to answer enquiry
- Provide sample learning activities linked to 3 different resources / data sources
- Identify the skills (geographical investigation skills, mapping skills etc.) that children are developing whilst undertaking these learning activities

Part 2 - Doing Just Maps

Step 4 - Analysing data



Steps for students:

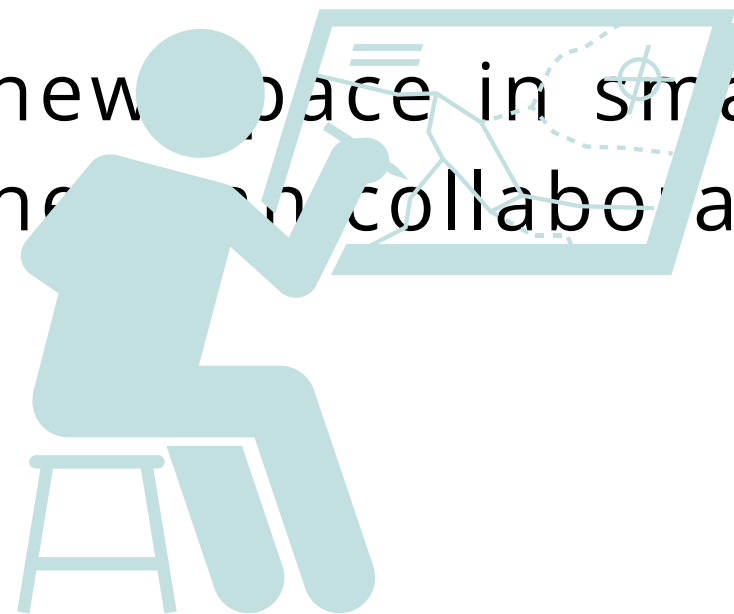
- Design and map the new improved space.
- Consider what features should remain (e.g. trees).
- What new additions/changes are you proposing in your new design? How do you know if they will fit?
- Consider scale by observing the size of surrounding houses, football pitches, cars, etc.
- Use symbols and a key for clarity.
- Consider entrance points to the space.
- How will people get there?
- Consider bicycle parking, etc.
- Get inspired from other parks/inspiration boards

Part 2 - Doing Just Maps



Step 4 - Designing your map

- Design and map the new improved space
 - Consider what features should remain
 - What new additions are you proposing in your new design? How do you know if they will fit?
 - Use symbols and a *key* for clarity
 - Check back in on the data you have collected. Does this new space represent everyone?
-
- Students can design their new space in small groups and then share with the wider class. After this they can collaborate on a whole-group map.



Part 2 - Doing Just Maps



Step 5

Communicating findings

Part 2 - Doing Just Maps

Step 5 - Google Earth



Google Earth will be the main way we communicate our findings on Just Maps.

- It allows people in many different places to share their maps collaboratively.
- It offers a range of tools to communicate our insights.

Use this link to join the official Just Maps Google Earth project.

where is link?

See Part 1 for more information on the advantages of Google Earth.

Part 2 - Doing Just Maps



Step 5 - Communicating Findings

Writing a Report:

- Structure; Aims; Approach; Findings; Recommendations

A good report can be judged against the 5Cs. Is it clear? Is it concise? Is it consistent? Is it coherent? Is it complete?

Making a Presentation:

- keep in mind your audience; images and videos are helpful; don't overload with slides or text

Talking to the rest of the school:

- School assembly or class to class; get students to give feedback

Connecting with Community:

Public meeting; share with contributors and research participants

Part 2 - Doing Just Maps

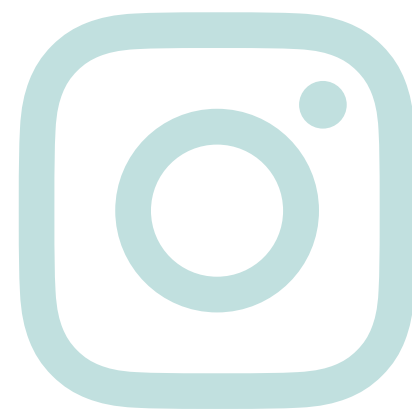


Step 5 - Digital storytelling

- Use your school's social media to share images and insights from students.
- Take parts of your report and adapt them to communicate your findings.
- Tag Just Maps!



justmapsjustaction



justmaps_justaction



Just Maps



Part 2 - Doing Just Maps



Step 5 - Communicating findings

Questions for teachers to consider:

How will the children present their findings?

- Blog
- Vlog
- Artefact
- PowerPoint
- Copies
- Poster
- Google Earth

Steps for students

- Present and share your new designs to each other.
- Engage in peer assessment and feedback.
- Make changes to your designs as appropriate. Perhaps you were over ambitious in scale or you neglected a group in the community.

Checklist for students: considering everyone?

Part 2 - Doing Just Maps

Step 6 - Taking action



Engaging decision makers:

National representatives, local politicians, municipal engineers or who else??

Letter writing campaign

Social media campaign

Written articles in local or national newspapers



Part 2 - Doing Just Maps

Step 6 - Taking action



Questions for teachers to consider:

- What action (where appropriate /relevant) will the children take following their new learning?
- What impact do we want to have on their areas?
- Who has the power to bring about the changes we want to see?

Steps for students:

- Invite members of the local community into the school to view your work/listen to presentations
- Engage with local councillors and planners
- Invite/link up with local groups such as Tidy Towns

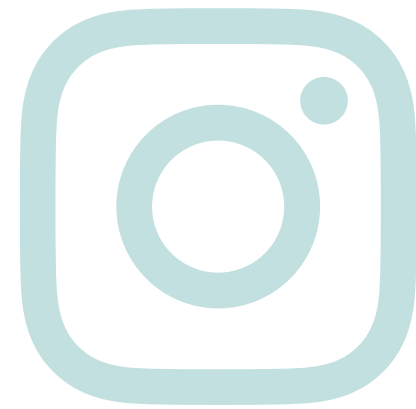


**Additional teacher resources and tools
available in accompanying handbook at
enter link**

Contacts



justmapsjustaction



justmaps_justaction



Just Maps



www.justactionjourney.com





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