Explore ArcGIS Online

https://arcg.is/1mTvvD

1 Can you find your house? Find your school?

> Find address or place 🔍

2 What does it look like where you live?

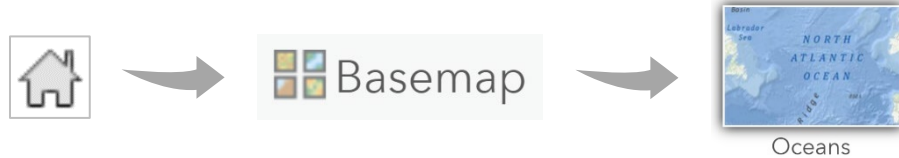🟦 Basemap ➡️ *Imagery with Labels* ➡️ [+ ⌂ −]

Let's EXPLORE!

Zoom in (+) and out (-).

Pan (click and drag)

3 Where are the Pyramids of Giza?

> Find address or place 🔍

4 How big is the pyramid?

📏 Measure ➡️ Find area, length, or location | Sq Meters ▾

Is the pyramid bigger than your school?

Move the mouse to the corners.

1ˢᵗ click — *double click*

2ⁿᵈ click — *3ʳᵈ click*
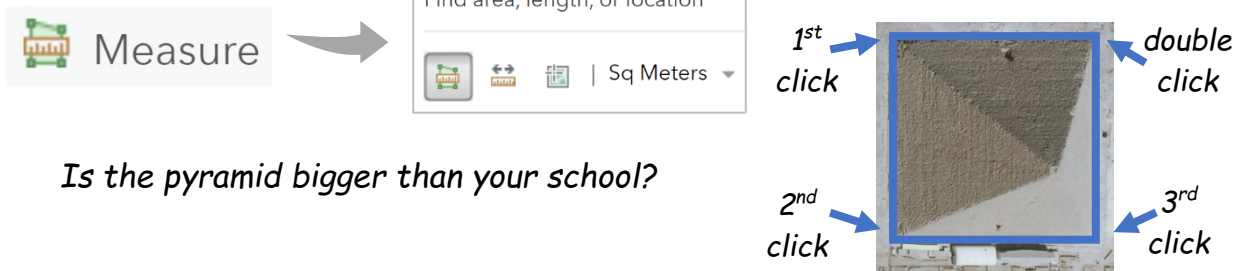
5 What do the oceans look like using a different map?

⌂ ➡️ 🟦 Basemap ➡️ *Oceans*

6 Let's explore the ocean!

📖 Bookmarks ➡️ Central Indian Ridge ➡️ [+ ⌂ −]

What pattern of faults do you see?
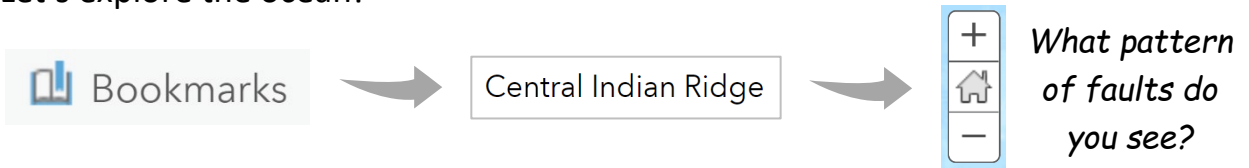
7 Where does your electricity come from?

⌂ ➡️ ▤ Content ☐ Global Power Plants ➡️ ☑ Global Power Plants

➡️ ▤ Legend
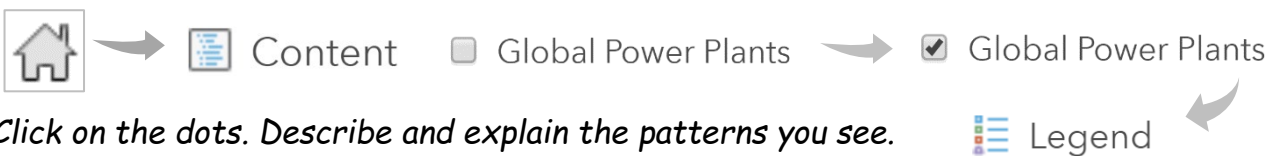
Click on the dots. Describe and explain the patterns you see. Where are South African wind farms located? Why there?

8 What can you find? Explore the remaining bookmarks and layers on your own. Remember: Use the Imagery Basemap and your tools!

This activity is designed to introduce learners to **ArcGIS Online**. ArcGIS Online is a cloud-based mapping and analysis platform. You can use ArcGIS Online to make maps, analyze data, and to share and collaborate. Basic access to ArcGIS Online is free. The activity explores the geographic information saved in a **Web map.** Web maps contain a basemap; data layers; an extent; a legend; and navigation tools such as zoom, pan, place finders, and bookmarks. Every web map "lives" on the internet (the cloud) and has a unique URL – a World Wide Web page address. The URL of this activity's web map is: **https://arcg.is/1mTvvD.** To get started, have learners open a web browser (ArcGIS Online prefers **Chrome**) and navigate to the activity's URL.

Exploration 1.

The first exploration introduces learners to the ArcGIS Online *find address or place tool.* Encourage learners to search for addresses or places such as Durban or Table Mountain or Robben Island. *Tip:* learners sometimes confuse the browser search tool with the ArcGIS Online find tool.

Exploration 2.

ArcGIS Online provides 10 different *basemaps*. Cartographers chose a basemap depending on the purpose of the map. *Tip*: If learners find themselves lost in the map, they have probably zoomed in too far. No worries! Just click the house icon in between the + and – symbols to return to a South Africa extent.

Explorations 3 and 4.

Exploration 3 askes learners to find the location of the Pyramids of Giza. The ArcGIS Online find tool result will center on the largest and oldest of the three Giza Plateau pyramids – The Great Pyramid built by King Khufu. Exploration 4 uses the *measure (area) tool* to calculate the area or "footprint" of the Great Pyramid and compare it to the size of the learner's school. *Tip*: The footprint of the Great Pyramid is about 50,000 square meters. Inaccurate mouse clicking will result in strange size calculations. To reset the tool, click anywhere outside of the measurement result shape. Note that the same process applies to the *measure (line) tool*.

Explorations 5 and 6.

These two explorations highlight the bathymetry (measurement of the depth of water) of the ocean basemap and introduce the *bookmarks tool*. ArcGIS Online bookmarks provide shortcuts to interesting places on a map. Cartographers create them based on the current location and scale of the map. When others click a bookmark, the map zooms to that location. *Tip*: Note that the numbers indicating spot depths are in meters.

Exploration 7.

Exploration 7 introduces learners to *layers of geographic information*. Learners turn on the "Global Power Plants" layer and switch from "contents" view to "Legend" view. *Tip*: encourage learners to ask geographic questions about the data. Where are clusters of wind power plants? Which Province has the most solar power plants? Why are they there? Clue: turn on the "Solar Potential in South Africa" layer.

Exploration 8.

Encourage learners to explore and *ask geographical questions* about the web map data. Where is…? Why is *it* there? What are the consequences of *it* being there? What if *it* was somewhere else?