



Geographers use all sorts of tools to help them investigate their questions. They commonly use **maps, globes, atlases, aerial photographs, satellite photographs, information graphics** and a computer program called **GIS**.

MAPS

A map is a flat representation of a part of Earth. Geographers use many different types of maps. Maps can show lots of different information including the location of places on the world. Maps use projection to try and display a round object (Earth) on a flat surface (a map). Cartographers (map-makers) have long struggled with trying to find the most accurate projection to make maps with.

Q) What are maps? _____

Q) What is projection? _____

Q) Name 3 different types of maps.

1.

2.

3.

ATLAS

An atlas is a book of maps. An atlas contains maps of the world or a region of the world. Some atlases also include more information about places than included in maps. Atlases can be very helpful for travelling. Instead of bringing many maps, you can bring one atlas.

Q) Why are atlases useful? _____

GLOBE

A globe is a model of the Earth, used to avoid distortions in spatial relations on the world. Maps of the world are distorted from trying to make a round object fit on a flat surface. The globe is round, so it remains accurate. The globe provides an accurate scale of how far apart locations are. You can also use a globe to get a comparison of the size of different locations.

Q) Explain why a globe is better than a map. _____

AERIAL PHOTOGRAPHS

Aerial photographs are photographs taken from the sky and used to take measurements or create maps. Aerial photographs can be taken from airplanes, balloons and even kites.

Q) Explain why you think an aerial photograph may be helpful to create maps. _____

SATELLITE PHOTOGRAPHS

Satellite photographs are like aerial photographs, but they are taken from space. Satellite photographs can capture large areas of the Earth, but they can zoom in pretty close.

Q) Why do you think a satellite photograph may be useful to a geographer? _____

INFORMATION GRAPHICS

Information graphics or infographics are visual symbols of data. They are images that show information using pictures or symbols. Examples include bar graphs, pie charts and diagrams.

Q) In the space below sketch what a bar graph and a pie graph looks like.

Bar Graph

Pie Graph

GIS (Geographical Information System)

GIS is a computer based program used to store, manage and analyse data. A GIS map is more than a map because it can pull up a lot of information. Geographers use GIS to help make decisions. Imagine that you wanted to make sure schools were not anywhere near factories that might pollute the air. With a GIS map, geographers can use the database (place that stores information) to show where all schools are. They can then use the database to also show where all the factories are. The GIS helps geographers see all kinds of information and how it relates to locations.

Q) What does GIS stand for? _____

Q) What is a GIS? _____
