

Geography

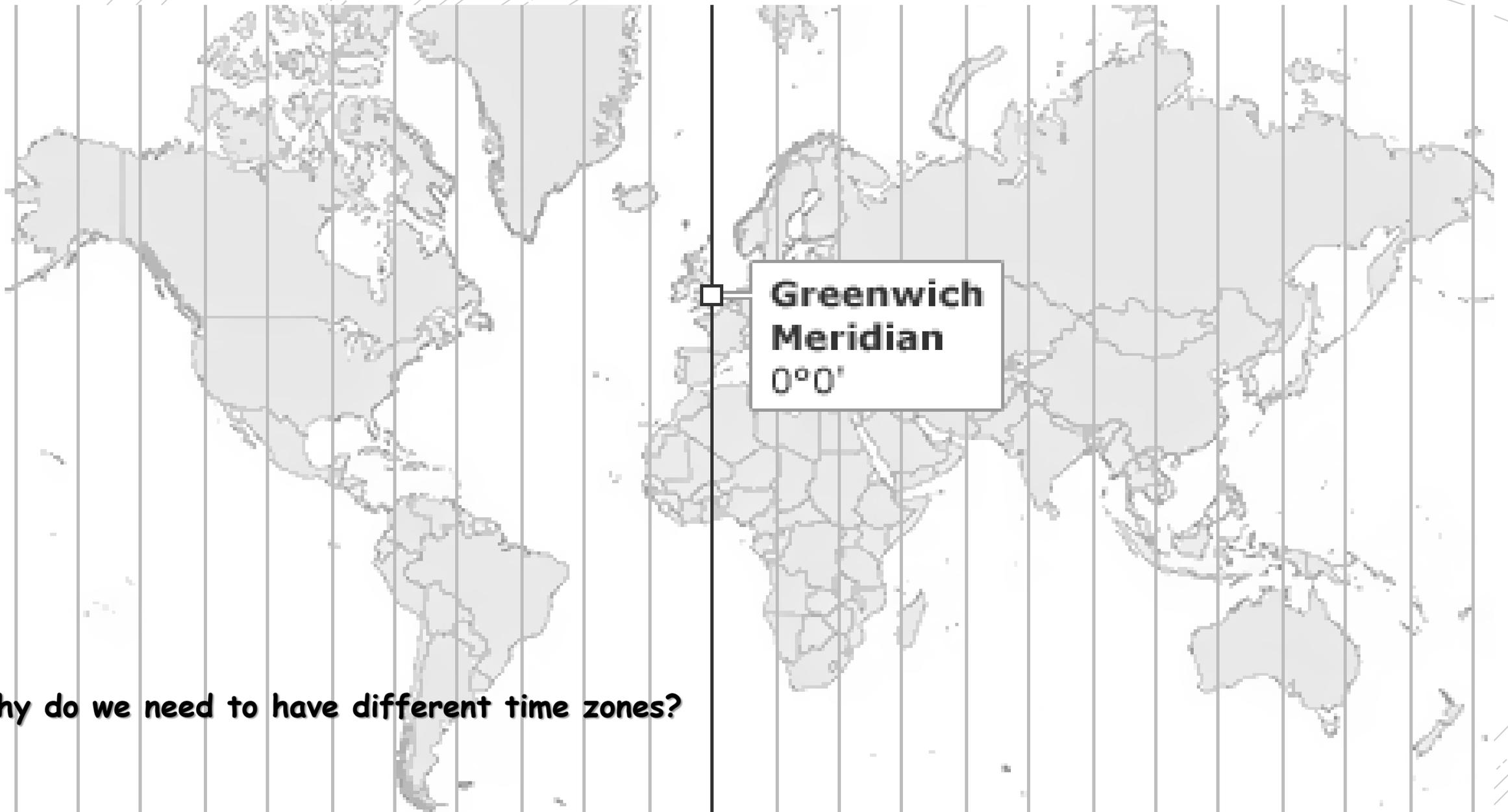
Lesson 1: WB 22.6.20

I understand time zones.

I can identify and explain the different types of maps.

Key Vocabulary:

- **Time zone** - A range of longitudes where a common standard time is used.
- **Longitude** - The angular distance of a place east or west of the *Greenwich* meridian.
- **Greenwich meridian** - The prime meridian which passes through the Royal Observatory at *Greenwich* in London. In 1884 it was adopted internationally as the zero of longitude.
- **Meridian** - A circle of constant longitude passing through a given place on the earth's surface and the terrestrial poles.



Why do we need to have different time zones?

Why can't it be 8pm at the same time across the world?

Time zones

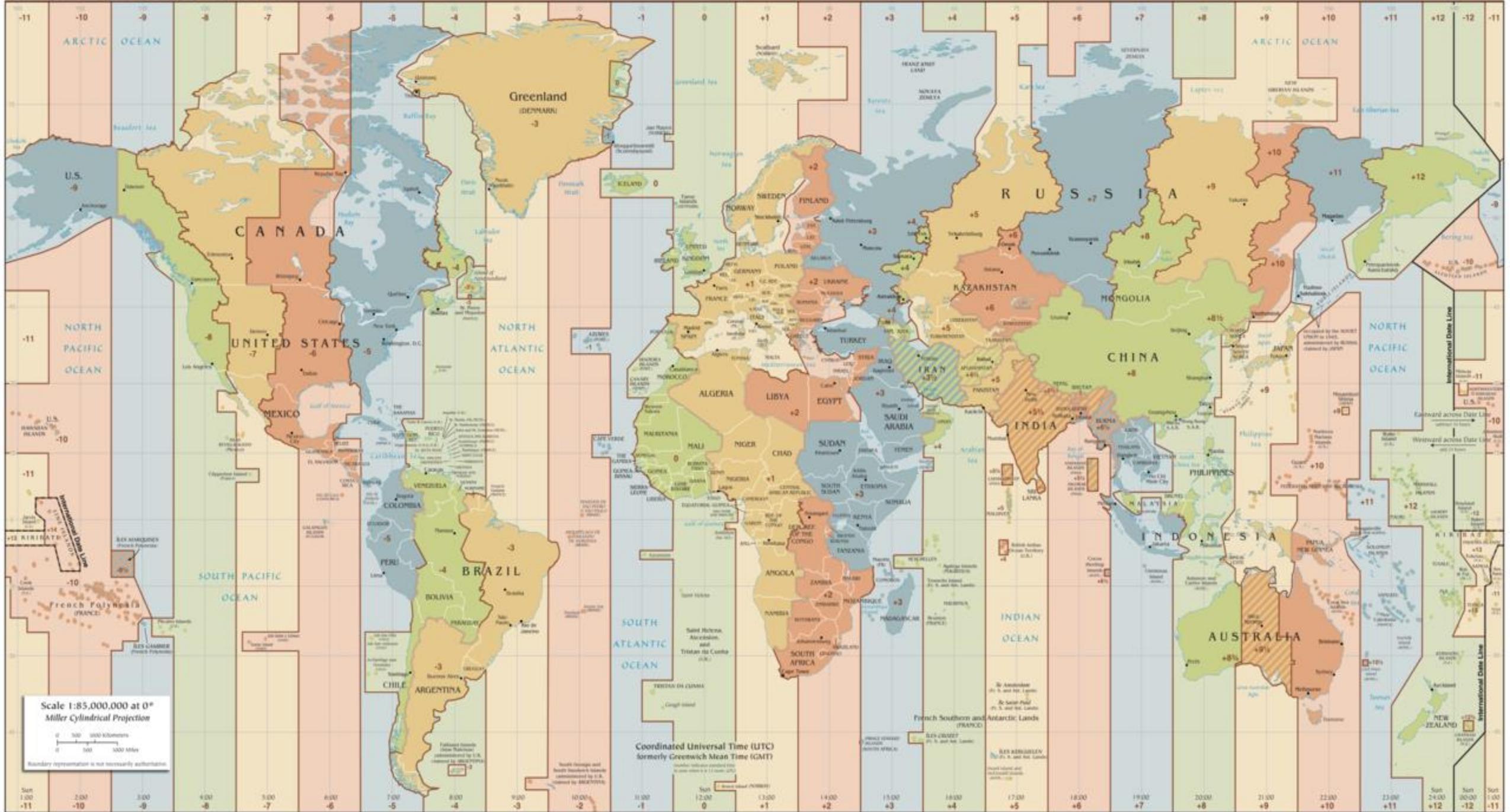
- **Scottish-born Canadian Sir Sandford Fleming proposed a worldwide system of time zones in 1879. He advocated his system at several international conferences and is thus credited with the instigation of "the initial effort that led to the adoption of the present time meridians."**
- **In 1876, his first proposal was for a global 24-hour clock, conceptually located at the centre of the Earth and not linked to any surface meridian. In 1879 he specified that his universal day would begin at the anti-meridian of Greenwich (180th meridian), while conceding that hourly time zones might have some limited local use.**
- **He also proposed his system at the International Meridian Conference in October 1884, but it did not adopt his time zones because they were not within its purview. The conference did adopt a universal day of 24 hours beginning at Greenwich midnight, but specified that it "shall not interfere with the use of local or standard time where desirable".**
- **By about 1900, almost all time on Earth was in the form of standard time zones, only some of which used an hourly offset from GMT. Many applied the time at a local astronomical observatory to an entire country, without any reference to GMT. It took many decades before all time on Earth was in the form of time zones referred to some "standard offset" from GMT/UTC. By 1929, most major countries had adopted hourly time zones.**

Time zones

- Today, all nations use standard time zones for secular purposes, but they do not all apply the concept as originally conceived. North Korea, Newfoundland, India, Iran, Afghanistan, Burma, Sri Lanka, the Marquesas, as well as parts of Australia use half-hour deviations from standard time, and some nations, such as Nepal, and some provinces, such as the Chatham Islands of New Zealand, use quarter-hour deviations. Some countries, such as China and India, use a single time zone even though the extent of their territory far exceeds 15° of longitude.

Why would some countries have more than one time zone?

STANDARD TIME ZONES OF THE WORLD



Scale 1:85,000,000 at 0°
Miller Cylindrical Projection

0 500 1000 Kilometers
0 500 1000 Miles

Boundary representation is not necessarily authoritative.

Coordinated Universal Time (UTC)
formerly Greenwich Mean Time (GMT)

UTC-11 UTC-10 UTC-9 UTC-8 UTC-7 UTC-6 UTC-5 UTC-4 UTC-3 UTC-2 UTC-1 UTC 0 UTC+1 UTC+2 UTC+3 UTC+4 UTC+5 UTC+6 UTC+7 UTC+8 UTC+9 UTC+10 UTC+11 UTC+12

WEST EAST

All time zone numbers to local time to adjust UTC. Subtract time zone number from local time to adjust UTC.

Scale 1:85,000,000 at 0°

What time is it?

- Using the time zone maps on the previous slides, can you work out what time it would be?
- Example:

Hello from Greece. It is 1:05 p.m. The time is 2 hours ahead of the UK.

11:05 a.m.

Maps

Hello from Greece. It is 15:17.
The time is 2 hours ahead
of the UK.

Greetings from Austin, Texas,
USA. It is 17:48. The time is 6
hours behind the UK.

Happy holidays from Moscow,
Russia. It is 02:21.
The time is 2 hours ahead
of the UK.

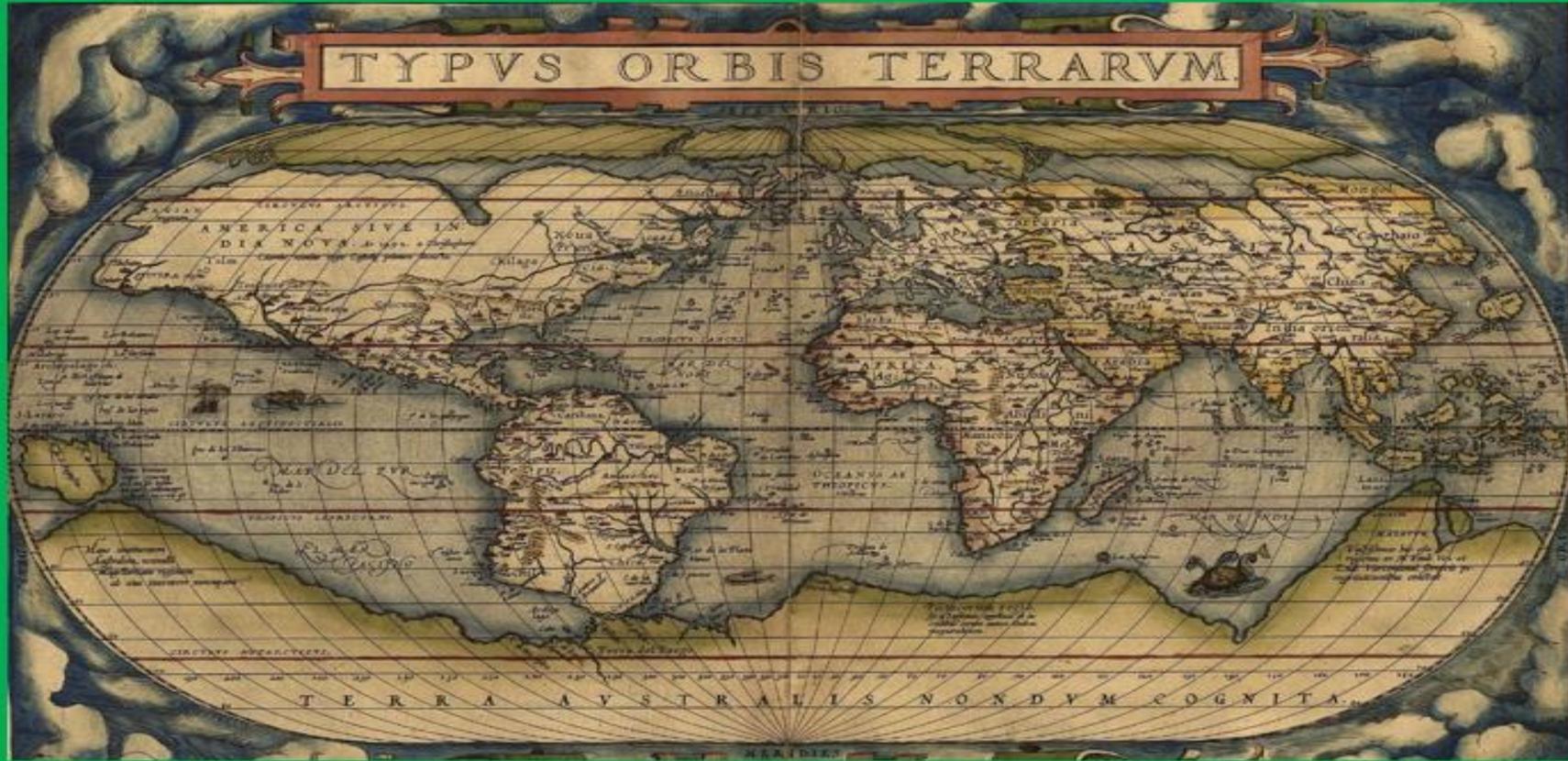
Good afternoon from Canada.
It is 16:18. The time is 5
hours behind the UK.

G'day from Sydney, Australia.
It is 08:36. The time is 10
hours ahead of the UK.



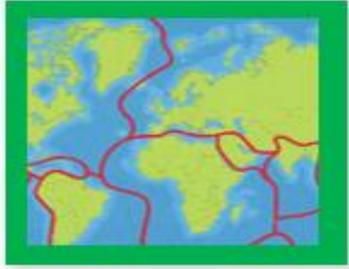
Why Do We Have Maps?

Maps have existed for centuries! Why do you think people started making maps? Why are maps so important?



World Map from 1570

What Is a Map?



Map - a drawing which shows part of the earth's surface from directly above.



Cartography - the study and making of maps.



Cartographer - a person who draws or produces maps.



What Should All Maps Have?

Every map should have:



A title – to tell you what the purpose of the map is.

A compass rose – to show the direction of the map.

A key/legend – to show what symbols on the map mean.

A scale – to show the distance between places on a map.

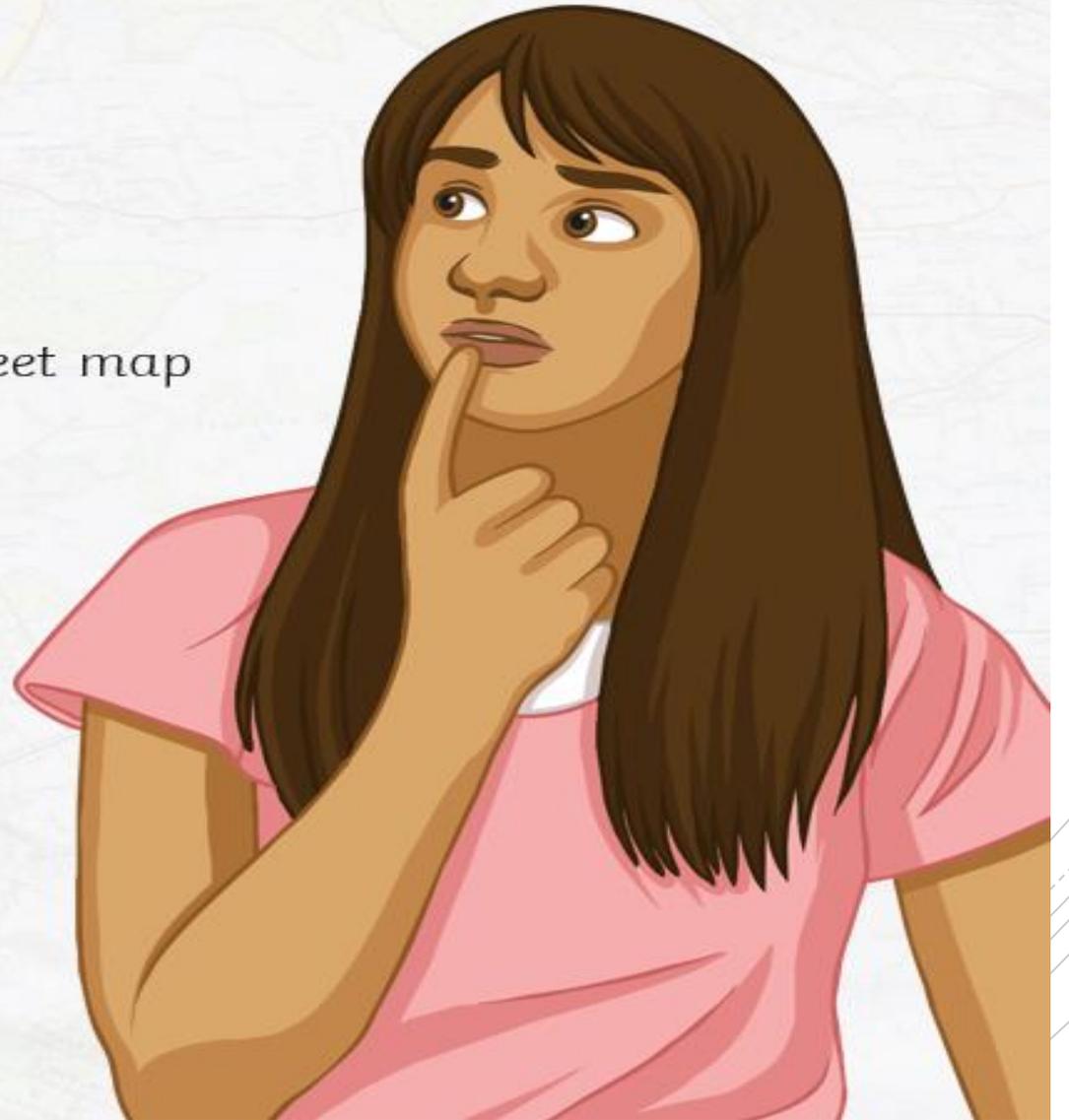
Types of Map?

How many types of map can you think of?

Draw a mind map to show your ideas.

Types of Maps

Street map



Maps

- Over the next few slides, you will see different types of maps.
- You will need to identify who each map would be used by.
- The first one is done for you.

Road Maps

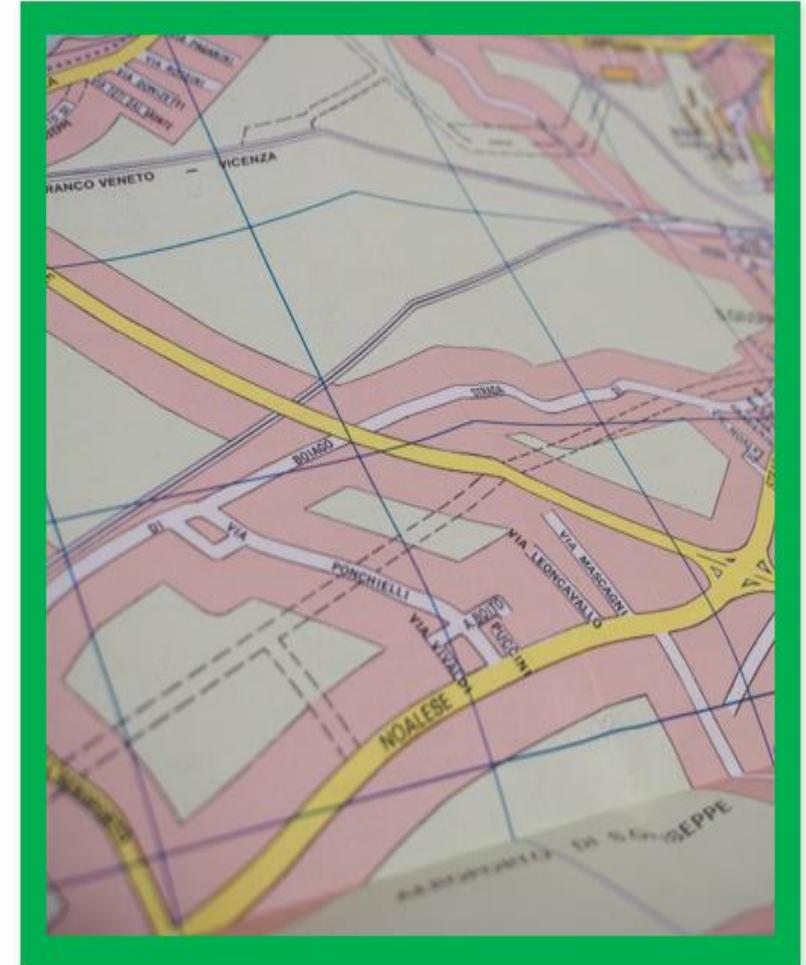
What does a road map show?

Who would use this map?

- Delivery Drivers,
- Emergency vehicles,
- Tourists,
- Commuters.

A road map is used to show the major and minor roads in an area.

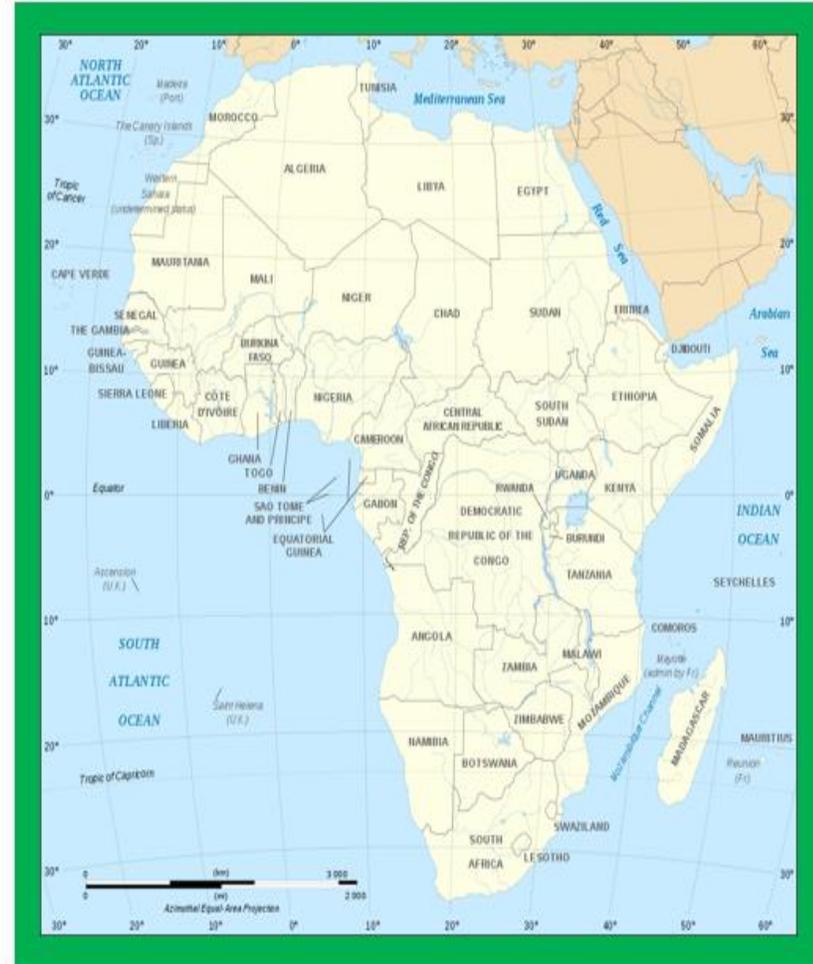
Road maps might also show towns and cities, airports and other points of interest such as camp sites etc.



Political Maps

What does a political map show?

Who would use this map?



A political map can show:

- countries;
- country boundaries;
- cities and capital cities;
- seas and oceans.

Political maps do not usually show any physical features.

Physical Maps

What does a physical map show?

This type of map shows the physical features of an area such as:

- major rivers and lakes (shown in blue);
- relief (shape) of the land;
 - deserts;
- landforms such as volcanoes.



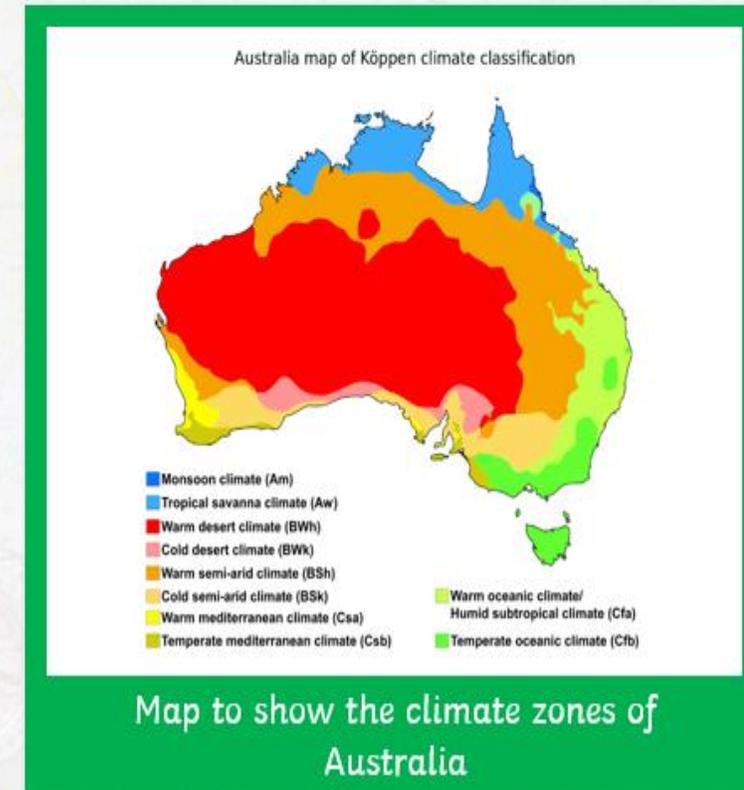
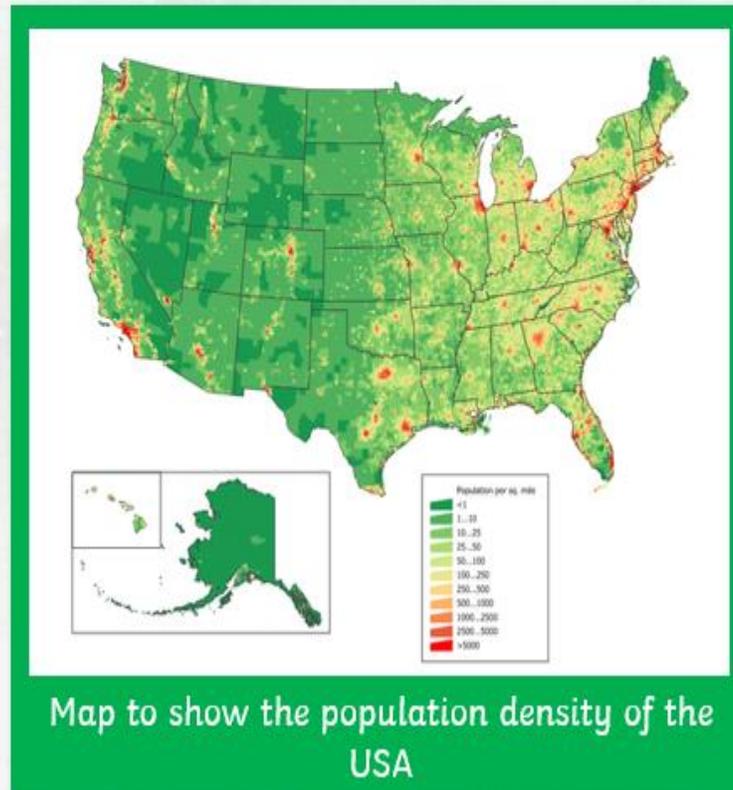
Who would use this map?

Thematic Maps

What does a thematic map show?

A thematic map is a map that is designed to show information about a single topic e.g. climate zones. It does not usually show political or physical features.

Who would use this map?

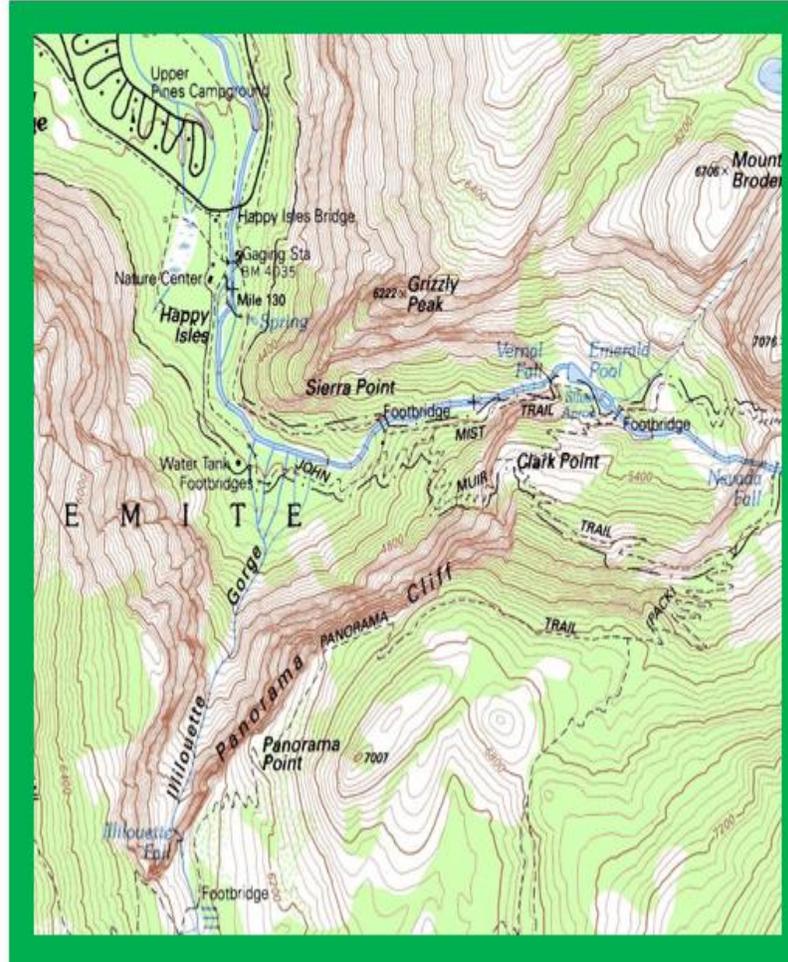


Can you think of any other examples of thematic maps?

Topographical Maps

What does a topographical map show?

Who would use
this map?



A topographical map uses contour lines to show the relief of the landscape.

It is possible to identify landforms such as hills, plains and valleys using these maps.

Topological Maps

What does a topological map show?



A topological map is a simplified map which shows only the vital information without unnecessary detail.

These maps do not have a scale or direction but are useful to show the relative locations of places on the map.

Who would use this map?

Navigation Maps

What does a navigation map show?

Who would use
this map?

A navigation map is used to pilot a ship.

It shows information including the coastline, water depth, natural features of the sea bed, man-made structures such as harbours, lighthouses and bridges as well as information on tides and currents.

