Holly Park Learning Organiser

Year 5 - Geography (3)

How could you have the longest birthday ever?

General Overview of This Unit:

The Earth is split into lines of longitude which create different 'time zones'

Place:

Focus: Time Zones

Prior Knowledge:

The Earth has imaginary lines going round it horizontally, which are called lines of latitude. These include The Equator and the Tropics of Cancer and Capricorn.

National Curriculum - Learning Objectives

- Identify the position and significance of latitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, the Greenwich/Prime Meridian and Time Zones (including day and night)
- Use maps, atlases, globes and digital/computer mapping to locate countries,
- To use the eight points of a compass, four and six figure grid reference, symbols and a key.

New Learning in this Unit:

- Because we rotate around the sun, it shines on the Earth at different times. We have split the world into time zones so that the sun is directly above each place at around midday.
- The date changes each day at the International Date Line

Essential Knowledge to Progress:

The time in the UK is not the same time as other countries

When we travel we have to change the time on our watches and phones

Adaptations:

https://www.youtube.com/watch?v=aEWpIE9fG4M

Watch the video about New Year around the world

Enquiry Skills - Disciplinary Knowledge

- Begin to suggest questions for investigating
- Collect and record evidence unaided
- Analyse evidence and draw conclusions

Key Vocabulary	
Greenwich Mean Time	Standard time by the site of the Prime Meridian which runs through Greenwich, London
Prime Meridian	Imaginary line running around the Earth from North to South
time zone	One of the Earth's 24 divisions by one hour
longitude	Distance east or west of the Prime Meridian, measured in degrees
Eastern Hemisphere	Area to the east of the Prime Meridian
Western Hemisphere	Area to the west of the Prime Meridian
Anti Meridian	The line of longitude running at the exact opposite of the Prime Meridian
International Date Line	The line on the Anti-Meridian which is the first place to record a new date each day.

The Earth's Rotation

The Earth rotates. It takes 24 hours for the Earth to fully rotate.

At any time, one half of the Earth is in daylight and the other half is in darkness.

At **midday** the sun is directly overhead. There may not be any shadows at that time.

The Earth rotates anti clockwise.

The Prime Meridian

There is a line of longitude running through the UK called the **Prime Meridian**. It runs through a place in London called **Greenwich**.

The Prime Meridian splits the world into eastern and western **hemispheres**.

Time Zones

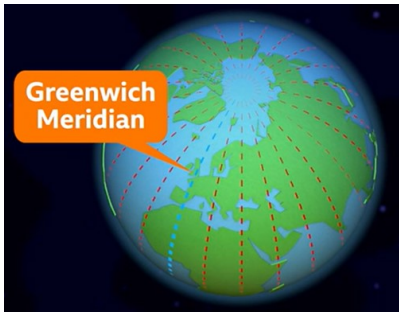
Each meridian has been given a different time zone, to make sure that as the Earth spins, the sun will be directly overhead at 12noon. Time in countries to the **east** of the Prime Meridian is always an extra hour for each meridian in front of that in the UK.

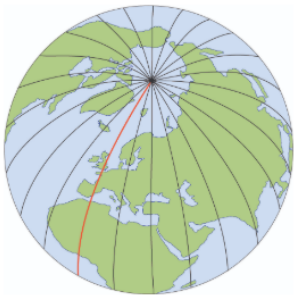
Time in countries to the **west** of the Prime Meridian is always one hour for each meridian behind that of the UK.

Time zones are not always in straight lines on the longitudes on Earth. This is because they may need to curve around country borders. You can see this in the map above.

There are 24 time zones for 24 hours of the day.

Each time zone can be measured at 15◦ intervals from the poles.





The International Date Line

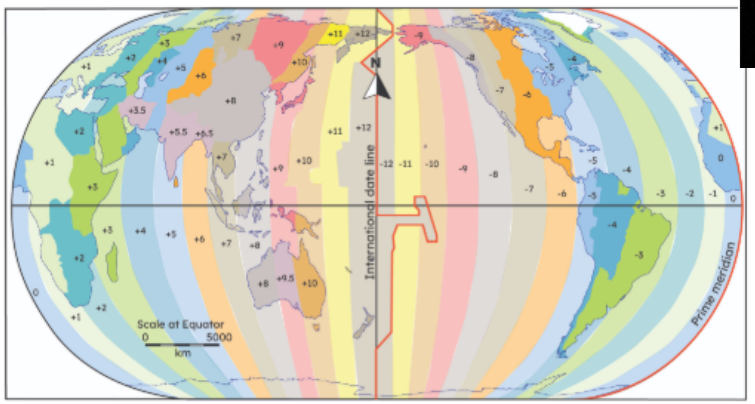
Directly opposite the Prime Meridian is the anti-meridian. This runs through the Pacific Ocean which doesn't affect any countries.

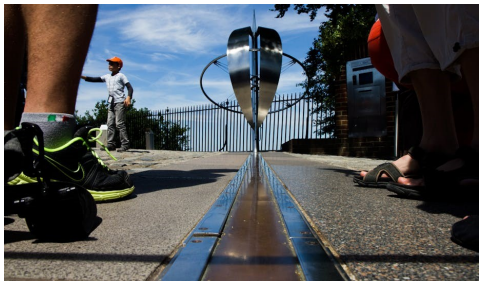
This is also the International Date Line.

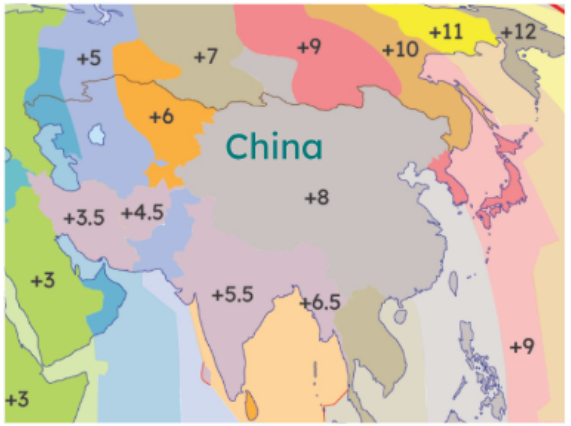
When it reaches the time 00.00 at the International Date Line, the date changes to ne next day.

As each time zone reaches 00.00 after that, it becomes the next day.

At New Year, people celebrate at different times due to the time zone that they are in.







Big Countries

Large countries like China are situated across multiple time zones. Depending on where you are in China, it could be a different time zone to someone else in the same country. This is similar for many large counties such as the USA.

Session	1	2	3	4	5	6
Enquiry Question	**Where are we in space, and what are we doing?**	**What is day and what is night?**	**What are lines of latitude and longitude?**	**What are time zones?**	**What is the International Date Line?**	**How could you have the longest birthday ever?**
Main Teaching Point	We are orbiting the sun, along with other planets. We are also rotating, sometimes facing the sun and sometimes facing away. Our moon is orbiting around us.	Daytime occurs when our part of the world has rotated to face the sun. Whilst we are facing the sun, the other side of the world is in darkness. It takes us 24 hours to rotate.	Recap lines of latitude from Y4. Lines of longitude are imaginary lines from North to South around the Earth. They are spread every 15◦ to create 24 sections.	Each section has it's own time zone. The y are measured from Greenwich in London. Each section to the east one hour ahead Each section to the west is one hour further behind.	At 00.00 at night, the date changes to the next day. On the opposite side of the world to the Prime Meridian is the Anti - Meridian. This is also the International Date Line. When it reaches 00.00 here, the date changes.	Explore time zones around the worl.d. To have the longest birthday ever, where would you begin? Which direction would you travel? Which countries would you travel to? How long would you stay there? Where would you end your day?

Map Skills

- Begin to use atlases to find out about other features of places. (e.g. find wettest part of the world)
- Identify significant places
- Use index and contents page within atlases.

Style of Map

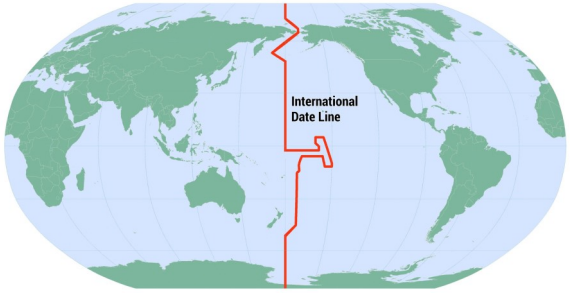
- globe
- map of the world
- aerial views from space
- night time views from space

Future Learning from this Unit:

- Mapping and location are used by humans to identify what they want/need (Y6)

Suggested End of Unit Task:

Plan your longest birthday ever. Where would you begin? Which direction would you travel? Which countries would you visit? How long would you stay there for? Where would you end your day? How long would your birthday really be?



Y5/Y6 Assessment Benchmarking:

- Children have a more detailed and extensive framework of knowledge of the world, including globally significant physical and human features and places in the news
- Children understand in some detail what a number of places are like, how and why they are similar and different and how and why they are changing. They know about some spatial patterns in physical and human geography, the conditions which influence those patterns and the processes which lead to change. They show some understanding of the links between places, people and environment
- Children are able to carry out investigations using a range of geographical questions, skills and sources of information, including a variety of maps, graphs and images. They can express and explain their opinions and recognise why others may have different points of view