Spatial Sense

Year 6

Key end points of this unit, Spatial Sense, are:

- To be able to read and understand how to use a range of maps
- Maps can help us to understand data about people, places and the environment.
- Within a time zone, people observe the same time as it is convenient for business, trade and communications.
- Quality of life and standards of living differ across the globe.

This unit builds on all of the previous spatial sense units as children learn and remember more over time. In Year 2 children looked at **maps** of the school site and the **four-point compass**, in Year 3 they learned about the **eight-point compass** and **grid references**. In Year 4 children learned about lines of latitude and longitude and revisited the equator and the poles. They practiced using grid references and learned how to read and use **map scale**. Children then used their geographical understanding to look at **change over time** in their local area. In Year 5 children looked again at lines of longitude and latitude and learned more about the Prime Meridian and why it was agreed. They explored co-ordinates.

In this unit children will look again at **longitude, latitude**, the **Prime Meridian**, the **tropics** and the **Antarctic and Arctic circle.** They will explore the movement of the sun and how at the poles, polar night occurs. Children will look at a wide range of maps during this unit. Their knowledge of the location of continents, oceans and countries should be secure at this point in their journey through the curriculum, but using different world maps in this unit is another opportunity to reinforce this knowledge.

As children work through KS2 geography they will use and apply their geographical skills, such as map reading, using symbols, grid references etc in many different contexts as they learn about places around the world. Over time children will get better at the skill of **map reading** using a wide range of maps as they learn more and remember more of the curriculum.

Lesson Sequencing:

The sequence of lessons in this unit has been designed to build on prior knowledge and introduce new material in small manageable steps. In lesson 1 children will again study the lines that cartographers use to divide the world into sections. The understanding that these imaginary lines are used to locate places accurately will be reinforced. Children will recap lines of longitude and latitude and will learn about the places where they intersect; co-ordinates. Studying these lines will help children to understand that from our knowledge of the location of places, we can make educated guesses about the climate, as we know the further from the equator, the colder the climate will be.

In lesson 2 children will look at the Arctic and Antarctic Circles and will learn more about the climate in these regions. They will look at diagrams to explain why there are points in the year where the sun does not set, and other points where the sun does not rise. They will draw a diagram to show why 'polar night' occurs.

In lesson 3, building on knowledge of longitude, children will look at time zones and how they differ around the world, following lines running pole to pole. They will identify the Prime Meridian line and will learn it is a reference point for measuring time. They will identify the international date line, found at 180 degrees and will learn that crossing it going east changes Monday to Sunday, but crossing it going west turns Sunday into Monday.

In lesson 4, deepening knowledge of cartography and how maps are made, children will learn about map projection and how our round earth is represented on a flat piece of paper. They will understand that there are different approaches to map projection, each creating distortions.

In lesson 5 the unit ends with a look at different maps of the world and what we can learn from them. Children will explore GDP (Gross Domestic Product) and will think about how geographers use data to understand more about life around the world. In this lesson children look at life expectancy, literacy levels, food distribution around the world using data from maps. As they have secure knowledge of countries, continents and their locations, they can use this knowledge fluently to compare and contrast data from around the world.

The key substantive concepts focused on in this unit are place and space.

The key disciplinary understanding in this unit focusses on how geographers use maps to explain the world around us.