

Globes and Atlases: An overview

The Earth - the planet on which we live - is the subject matter of geography. No other school subject specifically directs children's attention to the wider world. And no other subject makes such extensive use of maps and diagrams to describe and analyse places. This article considers two of the tools which geographers use to represent the Earth's surface and with which the subject is intimately connected – globes and atlases.

Globes

Globes are models of the Earth. They have the advantage of being three dimensional and of showing the Earth as a sphere. However, the practical limits to the size of a globe often make it difficult to show enough detail. Also, some parts (usually the area around the South Pole) tend to be obscured by the bulk of the model around it.



From a classroom point of view, globes are particularly useful for showing the Earth in space. The tilt of the axis, the orbit of the Earth around the sun and the way the Earth spins as it travels through space are perhaps best demonstrated using a globe. The curvature of the Earth's surface is also highlighted. This explains, for example, why the shortest route from London to Tokyo goes close to the North Pole.

Nowadays many schools are investing in inflatable globes as well as those with a fixed stand. This makes it possible to throw and bounce the globe in geographical games. It also encourages more flexible use. Children can hug the globe as they make up songs about the world, add stickers to show where they have been or turn it sideways to find out about places along the Equator.

Both fixed and inflatable globes are available from suppliers such as Hope Education, Wildgoose and Just Globes. Some show relief features or focus on themes such as creatures and habitats. Others are designed for children to complete and simply show the outline of the continents. If you want a globe that shows countries you may prefer to opt for a larger model in view of the amount of detail involved.

www.hope-education.co.uk

www.wildgoose.ac

www.justglobes.co.uk

Atlases

Atlases are books of maps. They have the advantage of showing the Earth's surface at a range of scales, and can contain information (including text and diagrams) on a number of themes and topics. However, atlas maps, being two dimensional, can never accurately represent the curvature of the Earth. This inaccuracy, while largely irrelevant at a national (UK) scale becomes much more significant at a continental and global level.



All atlas maps are drawn according to a grid or projection. One projection which has proved particularly enduring was devised by Mercator in the sixteenth century. It is accurate in terms of compass direction but makes the Polar Regions appear very large (Figure 1). An alternative projection devised by Peters is accurate in terms of area but distorts the shapes of the continents in a different way (Figure 2). Most atlases compromise between these two extremes such as the Eckert IV projection (Figure 3). A quick way of checking if a map is equal in terms of area is to compare Greenland and South America. Greenland is one eighth of the size of South America but is sometimes shown as nearly the same size.



Figure 1 The Mercator projection

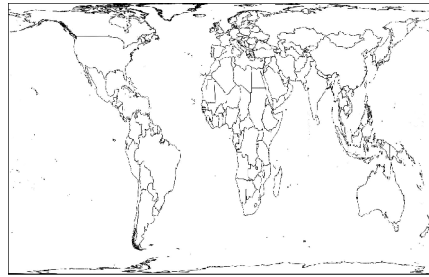


Figure 2 The Peters projection

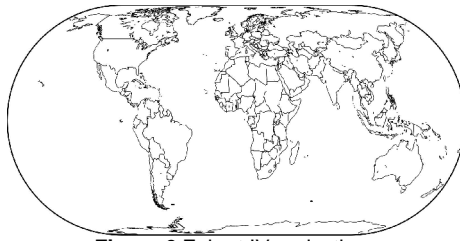


Figure 3 Eckert IV projection

School atlases are available from leading educational publishers such as Collins, Longman, Philips and Oxford University Press. These target specific age ranges and seek to match the curriculum in different ways. The traditional reference atlas, which primarily aimed to show place location, is now being supplemented by thematic atlases with a stronger focus on topics such as travel, population and the environment. At the same time, modern computer programmes mean that atlas material, including immensely striking satellite images, is now widely available on screen.

In selecting an atlas for your school you may find it useful to consider the following questions

- How do you intend using the atlas in your lessons?
- What type of atlas do you want – reference or thematic?
- Is the content pitched appropriately for the age range in your school?
- Are the maps up to date and easy to read?
- Do you want an atlas which includes text, charts and diagrams alongside the maps?
- Will you supplement the atlas with computer images and material?
- Will the atlas be strong enough to stand up to repeated classroom use?
- Is it good value for money?

Some teachers like to have a mixture of atlases so pupils can compare different cartographic styles. Others prefer to have the same title throughout the school so that it is easier to direct children to relevant pages and sections. What is crucial is that children use maps of the world in as many ways as possible from the time they begin school onwards. The modern world is interconnected and interlinked in a way that it never was before. How can we expect children to learn about this world if we don't provide them with globes and atlases?

Further reading

Visit the GA's 'Mapping Our Globe' section which examines the basic principles of creating and using world maps: www.geography.org.uk/resources/mappingourglobe

A PDF of the Eckert IV projection, as recommended in the National Curriculum, may be downloaded at www.geography.org.uk/download/GA_REMapsEckertIV.pdf

Chapter 8 of Scoffham, S. (2005) *Primary Geography Handbook*. Sheffield: GA. Available to purchase online: www.geography.org.uk/shop/shop_detail.asp?ID=454§ion=2