

Map Merging – Teacher’s notes

Overview

This is a quick and simple activity where three different projections of the world can be compared and contrasted. You can select either the Peters projection or the Eckert IV projection to compare with the Mercator projection. Basic statistics for each continent are provided to show that, although the projections may look different, the areas of the countries and general statistics remain the same. The activity is designed for a whole class session using an interactive white board.

Aims of the resource

- To allow three well-known projections of the world to be compared and contrasted easily and in detail.

Key objectives

At the end of this activity pupils will be able to:

- identify the Mercator, Peters and Eckert IV projections.
- describe the differences between the three different projections.

Using the resource

1. Click the LAUNCH button to start the activity. (If it doesn't launch, try turning off your pop-up blocker.)
2. Select the projection you are going to compare with Mercator's projection. (For the first comparison it would make sense to start with the Peters projection, so that the Eckert can be introduced later as a compromise between the other two projections.)
3. The Mercator projection will be shown on-screen first, with a description of its key features for discussion.
4. Use the MERGE slider on the left-hand panel to change slowly from Mercator to the projection you selected for comparison. Ask the pupils to look carefully at how the shapes of the continents on the map change. When you have pushed the slider fully to the end, only the new projection will be shown, with a description of its own key features.
5. At any time, you can click the STATISTICS button to see the key statistics that go with the map you are looking at. This illustrates the fact that although the projections may *look* different, the area and general statistics don't change.
6. To see how a particular country or continent changes, use the ZOOM button to zoom in. You can then 'drag' the map around until it is centred on the country you are interested in, using the mouse (or a pointer on the interactive white board) or the direction arrows in the panel on the left. Now when you use the slider to change to the other projection, you can see in detail what happens to the shape of the country or continent you have zoomed in on.
7. Look particularly at some of the southern hemisphere countries and continents like Africa and South America, and discuss how the pupils would feel if they lived in one of these countries. Which projection would they like most?
8. Use the CHANGE MAPS button to switch to the other projection. Explore this projection in the same way as before.
9. When you have had time to compare and contrast the maps, jump to the Plenary for some questions to discuss as a class.

Useful information

- If one of the map labels is getting in the way of seeing exactly what happens to the shape of a particular country or continent, you can switch the labels on and off by clicking the MAP LABELS button in the left-hand panel.

- Zooming in too close may cause the country you're looking at to disappear altogether off the screen because of the stretching effect of certain projections. Take it one step at a time for the best effect.
- Photocopiable outline versions of the maps featured in this activity are available in the Mapping our World book. To order a copy please visit <http://www.oxfam.org.uk/coolplanet/mappingourworld>