

LESSON #4 EXPLORE - NATHAN

LESSON OVERVIEW:

Students will participate in a group activity on an interactive whiteboard involving Google Earth. They will begin to explore what time zones are and how they work. Students will then present an example of how time zones compare and contrast in relation to AEST. Students will create a small Scratch piece on time zones.

LESSON GOALS:

At the end of this lesson, students will have demonstrated their understanding of time zones and how they affect us in their use of Google Earth. Students will have continued their development of their Scratch abilities.

VICTORIAN CURRICULUM LINKS:

LESSON RESOURCES:

Time Zone Map - <http://c.tadst.com/gfx/tzmap/map.1465092000.png?870>

Scratch – How to pdf

Individual devices

Smartboard that Google Earth can be connected too (Google Earth shown through the application or website)

LESSON OUTLINE:

Students will be assessed on prior knowledge of what a time zone is.

- What is a time zone?
- Why do we have time zones?
- How do time zones affect us?
- Does anybody know Australia's time zone(s)?

Using the level of understanding attained from prior-knowledge questions, teacher will use a time zones chart to demonstrate to students the different time zones in the world.

- Map displayed on Smartboard
- Important to point out purpose of GMT
- Highlight where we are on the map. Ask students about the Asia region and see what we have in common in terms of time zones.

Students will use Google Earth on their personal devices to explore various countries in Asia.

- In particular, countries they have been researching.
- Students can use tools to measure things like distance, find famous landmarks they know about, etc.

Students will find their country on Google Maps from a distance, and use the time zone map from earlier in the lesson and the map from Google.

- Teacher should demonstrate this on the Smartboard first.

Once students have found where a country is and what time zone it belongs too, they will do a comparison with Australia.

- Write a short piece on what comparative times you would be doing things in that country compared to Australia (Eg, when I am leaving school, it is only 10am in India).

Teacher will find a time-zone converter on Scratch. The teacher will display the script from the Scratch and help students understand how the script pieces work to allow it to function.

- This will help students at the end of the unit if they choose to develop a Scratch-based tool for their final assessment.

ASSESSMENT OPPORTUNITY:

The teacher will be able to gauge an understanding of students ability to investigate the influence of longitude, time zones and the International Date Line on connections with other Australia through their descriptions and creation made with Scratch