

## 2B – The Global Grid and Projections

MCCC SS060202 and SS060203

6<sup>th</sup> Grade Social Studies Network – 2015-6  
Part B of Unit 2 – The World in Spatial Terms

**GLCEs:** 6G111 use maps at different scales; 6G123 interpret maps; 6G125 use GIS

- 1. Review** ancient cities region and the temperature patterns used to help explain their locations  
(5 to 10 minutes, depending on how many maps you project and how much discussion you elicit)  
Region and temperature layers of 6<sup>th</sup> 1B Ancient Cities clickable map

- 2. Activity:** Nubia, Timbuktu, and Great Zimbabwe  
(30-90 minutes, depending on how many layers you discuss, whether you have students explore the clickable map on their own, and how you have them report their conclusions).

Like ancient cities, the capitals of ancient African empires also form a distinctive pattern that “covers” a very small fraction of the continent. This map activity shows how a clickable map can help students assess the importance of a wide range of latitude-related features that are possible causes for the map pattern. These include rainfall, river floods, raging wildfires, lions and other predatory animals, land uses, gold discoveries, slave trade networks, and malaria mosquitoes. The Big Idea Presentation shows one way to “explore” the continent through the clickable map – feel free to use parts of the presentation in your presentation or in any other way you think would help you students appreciate the influence of latitude (you probably do not have time to use it all, and there are definite advantages to modeling the inquiry with the clickable map instead of going through a canned presentation.)

BI5 Africa mini-Atlas Index

BI5 Africa clickable mini-Atlas

BI5 Africa Big Idea presentation

BI5 Chapter about Latitude and its Consequences in Africa

- 3. Scaffolding Activity:** Where is the equator?

(10-25 minutes, depending on students’ prior knowledge of latitude, how many clues you discuss, and whether you have students make up clues to help them remember the locations of the tropic lines.)

6<sup>th</sup> 2B Equatorial Rainy Belt activity

6<sup>th</sup> 2Bx Where Is the Equator? presentation

- 4. Scaffolding Activity:** Map Projections

(10-25 minutes, depending on whether you want to include some of the MCCC discussion about distortion in various map projections. This is an important topic; students should look at map distortion, but the revised Michigan 6<sup>th</sup> grade GLCEs do not have any standard that deals specifically with projections.)

6<sup>th</sup> 2Bx Globe and N America map projections – brief handout about projections and distortion

6<sup>th</sup> 2Bx Globe as small model of big earth World clickable Bermuda Triangle map (in Map Lab)

- 5. Extension Activity:** From Kalamazoo to Timbuktu

(10-30 minutes, depending on how many places they measure.)

6<sup>th</sup> 2B NYLAs from Kalamazoo to Timbuktu

6<sup>th</sup> 2B NYLAs teacher notes

### Pages from MCCC

**SuppMaterials.SS060202 and 3:** Word cards, except absolute and relative location (we’ll explain why)  
- page 1 graphic organizer and page 7 summary assessment

**SS060202.Powerpoint** has good diagrams; we recommend postponing the ocean current part and replacing the climate frames with ones from the Africa Big Idea presentation.

**SS060203.Powerpoint** poses the projection dilemma well and has some great examples. We recommend skipping the detailed questions about distortion and simply noting that people have designed many projections and they all distort something. Note: the topic of projections is no longer in the GLCEs. We therefore suggest reducing the time for them, and “saving” the time for Units 4 and 6.

**Takehome:** Students should of course know about latitude and longitude; but all by itself, that knowledge is not worth much. A sound mental map of the global environment begins with a clear understanding of the importance of the equator (and young mountains near zones of active tectonic processes, Lesson 2A)