

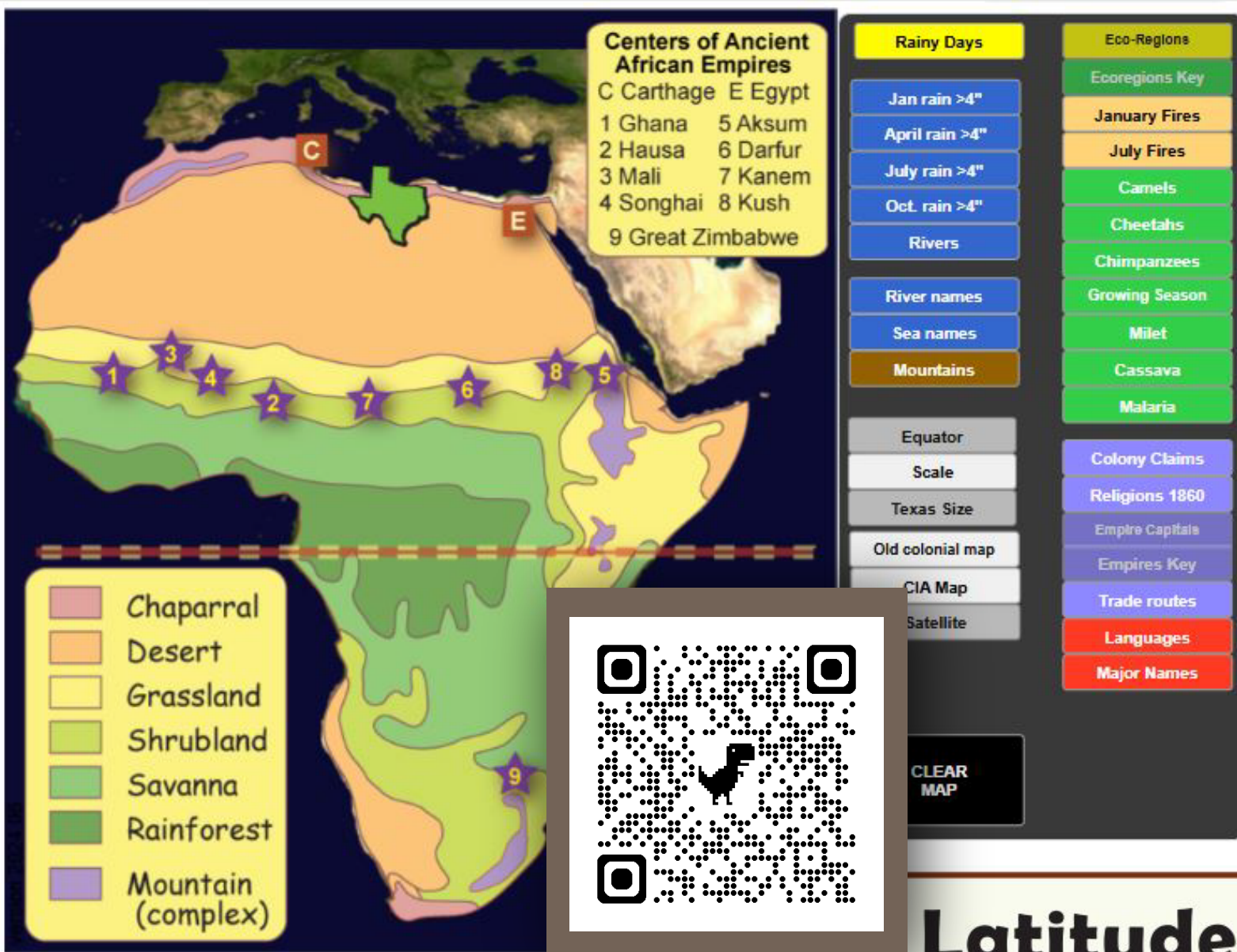
Designed for Understanding: Learning Progressions for Global Citizenship

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Setting: Seeking an Effective Way to Provide Context

“Students can find facts on the internet; we should focus on teaching skills.” This observation is common among educators today, but it is also naïve and dangerous. If students lack a framework of accurate and well-connected facts for comparison, it is difficult to evaluate new facts for accuracy or relevance. The Michigan Council for Social Studies is trying to address this issue by creating an online package of carefully constructed “clickable maps,” with supporting readings, presentations, student activities, and assessments.



Design Criteria for Online Clickable Maps

This map is not easy to read on a small conference poster. The purpose of this poster, however, is to summarize the criteria that informed the planning, research, and design of a carefully curated set of online “clickable maps.” These can be accessed via the QR code or at:

<https://textbooks.wmisd.org/BigClickableMaps.html>

Our goal is to provide an easy-to-use electronic resource that allows users to display several kinds of information, individually or in any combination. Topics for the maps are chosen to support student investigation of issues listed in the social-studies standards for different grade levels in our state.

“Map languages” (symbols, colors, etc.) are chosen to be both data-appropriate for each kind of information and age-appropriate for the students that are likely to use that information. Decisions about design have two logical foundations:

- reviews of research about the neuroscience and developmental psychology of spatial perception and reasoning (e.g. Gersmehl 2023)
- carefully constructed **learning progressions** -- diagrams that identify topics that should be taught in early grades to build a foundation for more advanced inquiry in higher grades.

Learning Progressions for Geographic Concepts

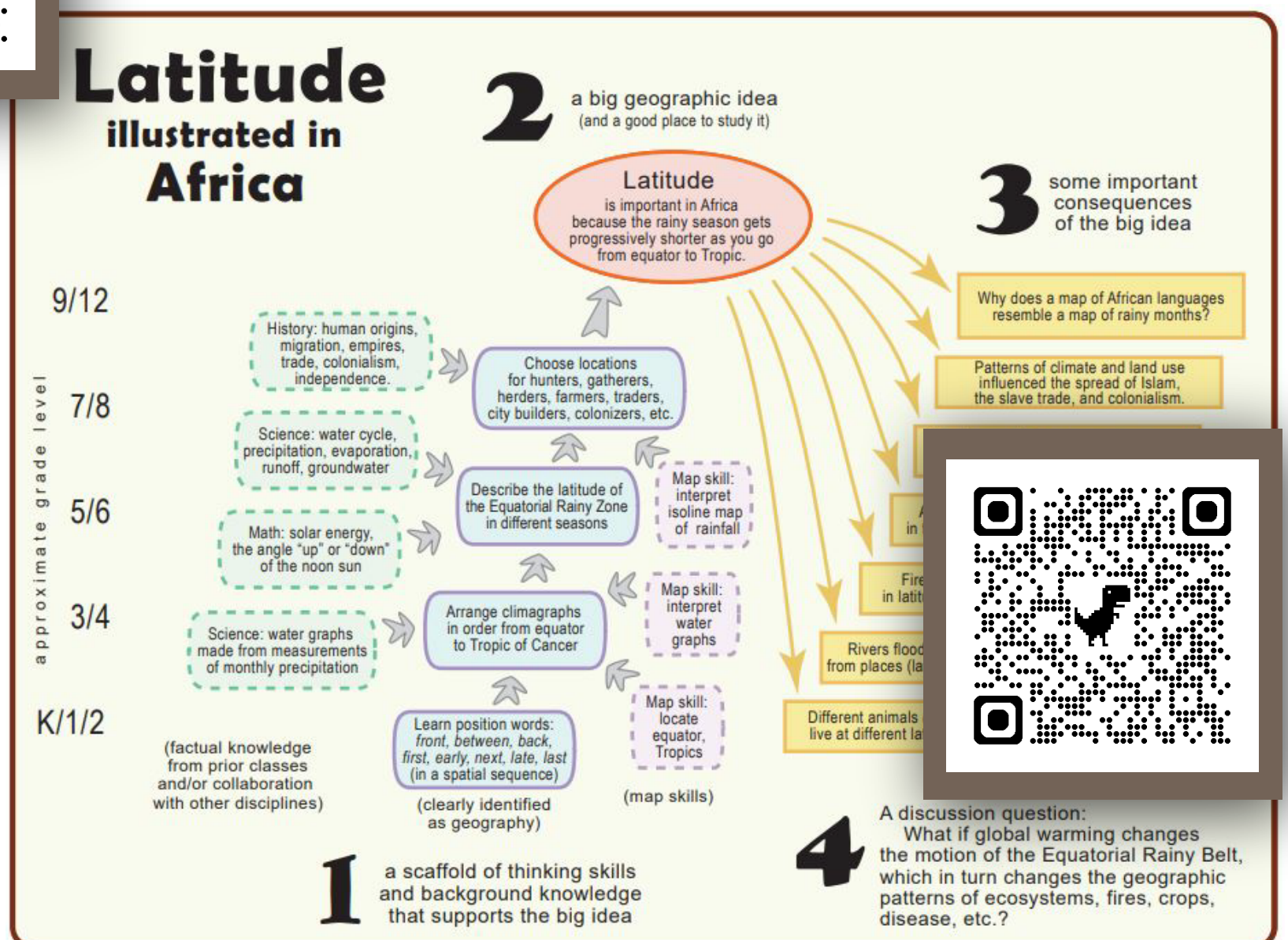
This graphic of a learning progression will also be difficult to read at the scale of this poster. It can be accessed via the QR code or at our website about teaching big ideas in geography:

<https://www.misocialstudies.org/BigGeographicIdeas.html>

As explained in a document that can be accessed from the first page of the website, a geographic big idea is something that varies from place to place in an observable way, and it has strong causal influence on other conditions in most places. Examples include latitude, elevation, natural resources, population density, or cultural diversity.

The opening page of the website has a world map. A button on each geographic region brings up a page with links to five elements: the clickable map for that region, an explanatory presentation of a big idea that is well illustrated in that region, an electronic text chapter, several student activities, and a diagram of the learning progression that we used to design these materials.

Part 1 of the diagram shows a sequence of steps to help students “build up” to a solid understanding of the big idea (stated in Part 2). The diagram also identifies topics in earth science, economics, and history that are related to the big idea at each grade level. Part 3 lists several observable effects of the big idea. Teachers can use these examples to help explain the idea, or as prompts for individual or group student inquiry. Part 4 is a focus question that can support discussion, guide inquiry, or assess student understanding.



Gersmehl, Philip J. and Johnson, David. A. 2026. The Michigan Clickable Map Project. *The Geography Teacher*, Vol. 23#3. in press.

Gersmehl, Philip J. 2023. Brain Science and Geographic Thinking: A Review and Research Agenda for K-3 Geography. *Education Sciences* 13#12: article 1199. (See also a series of six articles about “The Map Reader’s Brain” in volumes 20 and 21 of *The Geography Teacher*)