Design Patterns for Instructional Materials that Foster Proficiency at Analyzing and Interpreting Complex Geoscience Data

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What is a Design Pattern?

The term originated in architecture, and refers to a re-usable solution to a recurring problem or situation.

As applied to curriculum design, a design pattern lays out a sequence of actions to be carried out by teachers and students in an instructional setting. Design patterns are content-independent and can be used again and again for different topics.

This study looked for design patterns that support the learning goal of: Students are able to use authentic geoscience data to make inferences about Earth processes and decisions about Earth/human interactions, our geoscience instantiation of NGSS Practice #4: Analyzing and interpreting data.