	T-GEM/Chemland	Anchored Instruction/Jasper Series	SKI/WISE	LfU/My World GIS
Description	Process for students to use real data to Generate, Evaluate, and Modify concepts to build greater understanding, critical thinking, and in-situ learning.	Video-based learning series where students engage with real-life problems which they can work to solve in a multi-disciplinary approach.	-Web-based inquiry platform -Connects pre-existing ideas with inquiry learning Based on 4 principles: -Making thinking visible -Make science accessible -Encourage students to learn from one another -Promoting lifelong learning	Uses data from a discipline-specific area to encourage students to interact with real-life data and analyses. LfU model strives to build useable understanding by: -Building Motivation -Constructing Knowledge -Refining knowledge
Framework Focus	-Helps students address preconceptions, formulate new ideas, and be able to analyse and manipulate concepts and relationships. -Learning should happen in context to help utility of skills in the future. -Cooperative learning conditions can help students of different abilities succeed.	-Learning should happen in context to help utility of skills in the future. -Cooperative learning conditions can help students of different abilities succeed. -Cross-curricular approaches help students work to enrich multiple subject areas at the same time	-Helps students address preconceptions. -Works constructively to develop student understanding. -Looks to merge personal experiences with science to build greater retention in students. -Learner-centered approach	-Learning should happen in context to help utility of skills in the future. -Students learn through meaningful interaction with concepts -Collaborative learning conditions can help students of different abilities succeed.
Key Ideas/Goals	-Focus on scaffolding, inquiry-based learning, real-life learning situations, and self-generated knowledge. -This process helps build science process skills,	-Cross-curricular, exploration of multi-faceted problems with a spectrum of solutions -Students work in groups to build solutions to constructed scenarios. -Multiple levels of support are available based on student's abilities.	-Focusses on building procedural thinking skills for students to model through activities. -Allows complex problems to be broken down and made more accessible to students.	Motivate – Students gain curiosity through the interaction with factual data sets on scientific phenomena Construct Knowledge – Students find relationships with data sets and work to formalize these concepts with peers and teacher. Refine Knowledge – Students apply and work with new knowledge to formalize learning and build Long Term Memory linkages.
Technology Integration	-The use of real-life data from various sources and services.	-Video scenarios through JASPER series. Students can explore video and concepts through webpage.	WISE- Web-based Inquiry Science Environment	-Students access real-life data sets through online services such as Google Earth, NASA, My World GIS etc.

	-A variety of technology can be used to map, visualize, and evaluate information -Available on many platforms with varying focuses.	-Students can further explore topic and possible solutions by searching online resources and using digital tools to formulate responses and discussions. -Questions can be easily adapted and changed to fit with current events, exploration science, and online utilities. -Consider combination with T-GEM approach to build a robust unit reliant on real-life scenarios.	-Use of web platforms which allows students to progress and their own pace. -Responses are digitally accumulated and can be marked through the online applications. -Format is flexible to accommodate development, changes, and sharing of activities between instructors.	-Student work could be presented in different digital modalities

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