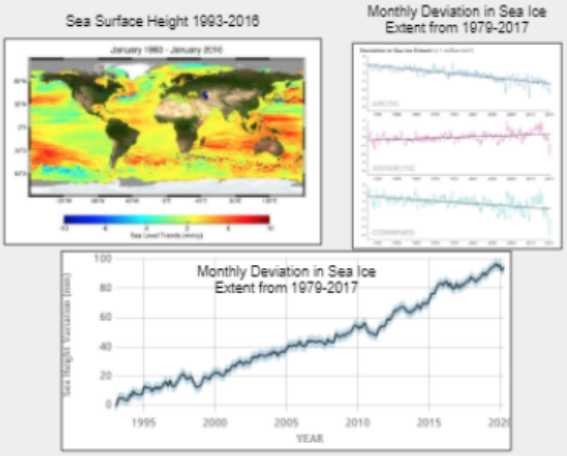
Instructional Strategies for the Earth Science Classroom

Make-a-Decision or Recommendation

Interact with data to decide or recommend actions stakeholders should take with respect to an Earth–human scenario.

(K. KASTENS & R. KRUMHANSL, 2017)

1. Students analyze a variety of data visualizations focused on central theme.
2. Teacher provides a scenario that students consider with respect to the data. Students review data and make a decision or recommendation. They also consider social, economic, political, and other human factors to justify their decision/recommendation.
3. Students communicate about their selection by citing evidence of the data to defend their reasoning.



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Are you tired of using the same classroom strategies, year-after-year? Explore the Google Slide linked here to see a variety of instructional practices reflect several common practices used in many Earth Science classrooms as teachers strive to incorporate data literacy.

Prior Knowledge Activation	Data Analysis	Data Interpretation	Differentiated Instruction	Reading Strategies	Vocabulary Acquisition	Collaborative Learning

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This list includes, but is not limited to, the following practices:

- Prior Knowledge Activation
  - Connection Circles
  - KWHLAQ Charts
  - Think, Pair, Share
  - Think, Puzzle, Explore
- Data Analysis
  - Data Literacy Cubes
  - GIST
  - Headlines
  - Make-A-Decision or Recommend
  - Nested Data Sets
  - Pooling Data to See the Big Picture
- Data Interpretation

    - Claim, Evidence, Reasoning, Rebuttal
    - Claim, Support, Question
    - Connect, Extend, Challenge
    - Data Puzzles
    - Fishbowl
    - Hypothesis Array
    - Identify / Interpret
    - I Used to Think.. / Now I Think...
    - Notice/See, Think, Wonder
    - Predict, Observe, Explain
    - RACE (Restate, Answer, Cite, Explain)
    - Zoom In
- Differentiated Instruction
    - Data Literacy Cubes
- Reading Strategies
    - RACE (Restate, Answer, Cite, Explain)
    - Text-to-Self, Text-to-Text, Text-to-World
- Vocabulary Acquisition
    - Word Wall
- Collaborative Learning
    - Fishbowl
    - Gallery Walks
    - Jigsaw Method
    - Think, Pair, Share

Should you wish to contribute to this list, please contact My NASA Data at mynasadata@gmail.com.