

# Remote Sensing - Eyes from the Skies!

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## **Session Description:**

Remote sensing has helped humans understand our Earth for many decades. Come learn how remote sensing will help us now tackle Global Climate Change.

**Objective:** To identify the Process of Remote Sensing and the applications for student research using remote sensing tools.

## **Standards:**

- Science Concepts: Energy, Motion and Forces, Earth and Space
- NGSS: Science and Engineering Practices with Satellite/spacecraft design.
- Core Ideas: Engineering and Technology, Earth and Space Science.

## **Goal for Lesson:**

Participants will have a clear idea of the complexity of planetary remote sensing, including the process, the technology involved, and the historic and future implications of using remote sensing satellite technology. Through this deep dive on the geography imaging of planets, participants will have access to resources and tools to share remote sensing, energy transfer, Electromagnetic Spectrum, and the effects of climate change, directly with their students. Using the resources from this session will help set up participants for multiple lessons and/or whole unit plans focusing on Earth and Space Science as well as the engineering of satellite technology and potential career opportunities.

## **Relation to Space Exploration:**

Remote sensing would not be possible without many satellites, specifically the LandSat and Sentinel (Copernicus).

## **MATERIALS NEEDED:**

Computer/Tablet with Internet

## **Structure of Lesson:**

- Introduction- "What is Remote Sensing?" 5
- History of Remote Sensing and Process of Remote Sensing 10
- Current Application of Remote Sensing 10
- Future uses of Remote Sensing, which will help address the needs of communities, based on Global Climate Change effects. 10
- How to encourage Career connections and CTE programming for students with focus on Remote Sensing, data, GIS and Environmental Advocacy. 5
- Questions and Wrap-up. 5

## **Links to Resources Used:**

[Eyes from Above StoryMap](#)  
[MAVEN Mission](#)  
[LandSat Explorer](#)  
[Sentinel/Copernicus](#) (swipe)  
[WayBack App](#)  
[Climate Sci Resources- NASA Earth Observatory](#)  
[Sustainability Goals - United Nations](#)  
[Jobs in GIS/Remote Sensing](#)

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