Observe our changing planet

LESSON 01 | Science / noticing and questioning

What can a photograph tell us about Earth?

Name: _____ Date: _____ Partner: _____

1. NASA learning resources

Open the linked resource title above.

Choose one Earth image. List three observations before you make an inference.

2. NOAA education

https://www.noaa.gov/education

Find a weather topic and write one testable question for our class.

3. NASA Space Place

https://spaceplace.nasa.gov/

Explain the difference between weather and climate in your own words.

4. Earth observation extension sheet

Open the linked resource title above.

Optional extension: compare two views of the same place over time.

Exit ticket: What did your source help you understand? What would you check next?

DEMONSTRATION EDITION. Includes synthetic stale resource paths for a link-audit sample. Teachers: preview all sites, access needs and age suitability before class.

Follow a drop of water

LESSON 02 | Science / models and systems

How does water move through our community?

Name: _____ Date: _____ Partner: _____

1. USGS Water Science School

https://www.usgs.gov/special-topics/water-science-school

Sketch a water cycle. Add one place where people change the system.

2. EPA student resources

https://www.epa.gov/students

Identify one action our school could take to protect water quality.

3. NOAA ocean learning

Open the linked resource title above.

Compare fresh water and salt water. Record a question you still have.

4. Water-cycle fieldwork pack

Open the linked resource title above.

Optional extension: use a fieldwork sheet to map a local water route.

Exit ticket: What did your source help you understand? What would you check next?

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Make data tell a story

LESSON 03 | Mathematics / charts and evidence

How can the same numbers tell different stories?

Name: _____ Date: _____ Partner: _____

1. Math is Fun: data

https://www.mathsisfun.com/data/

Select a chart type for a class travel survey. Justify your choice.

2. NCES Create a Graph

Open the linked resource title above.

Build a graph with a title, labels and units. Check your scale.

3. Census: Statistics in Schools

Open the linked resource title above.

Find an example of population data. Name its place and date.

4. Chart detective challenge

https://nces.ed.gov/nceskids/curious-planet-chart-lab-2018.asp

Optional extension: explain how a chart could mislead a reader.

Exit ticket: What did your source help you understand? What would you check next?

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Notice an ecosystem

LESSON 04 | Science / habitats and interdependence

What changes when one part of a habitat changes?

Name: _____ Date: _____ Partner: _____

1. National Geographic Kids

Open the linked resource title above.

Choose an animal and identify two features that suit its habitat.

2. Smithsonian education

Open the linked resource title above.

Find a natural-history object. Write a caption using evidence.

3. WWF species directory

https://www.worldwildlife.org/species

Compare two threats to a species. Which evidence would help us act?

4. National Park Service learning

https://www.nps.gov/learnandexplore/index.htm

Find a protected place and describe a relationship in its ecosystem.

Exit ticket: What did your source help you understand? What would you check next?

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Read like an investigator

LESSON 05 | Literacy / source and purpose

How does an author's purpose shape a text?

Name: _____ Date: _____ Partner: _____

1. ReadWriteThink classroom resources

Open the linked resource title above.

Use a reading strategy to separate a claim from its supporting evidence.

2. Library of Congress classroom materials

https://www.loc.gov/classroom-materials/

Choose a primary source. Ask who made it, when, and for whom.

3. Poetry Foundation: learn

https://www.poetryfoundation.org/learn

Read a short poem. Note one image and the feeling it creates.

4. Primary-source detective cards

Open the linked resource title above.

Optional extension: compare two accounts of the same event.

Exit ticket: What did your source help you understand? What would you check next?

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Ask questions of the past

LESSON 06 | History / evidence and perspective

Whose story does an object preserve?

Name: _____ Date: _____ Partner: _____

1. National Archives educator resources

https://www.archives.gov/education

Use an artifact to write a question a historian could investigate.

2. DocsTeach

https://www.docsteach.org/

Compare two documents. Separate what you can see from what you infer.

3. Smithsonian Learning Lab

Open the linked resource title above.

Select three objects for a miniature museum about community life.

4. British Museum learning

Open the linked resource title above.

Write a museum label that acknowledges what remains unknown.

Exit ticket: What did your source help you understand? What would you check next?

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Build a useful model

LESSON 07 | Computing / sequence and debugging

How can a model explain a real-world system?

Name: _____ Date: _____ Partner: _____

1. Scratch educator resources

https://scratch.mit.edu/educators/

Plan a three-scene animation of a water droplet's journey.

2. Code.org learning

Open the linked resource title above.

Describe an algorithm for sorting our classroom recycling.

3. PhET simulations

Open the linked resource title above.

Change one variable in a simulation. Predict, test and record the result.

4. Scratch water-cycle starter

https://scratch.mit.edu/educators/curious-planet-starter-2018/

Optional extension: debug a starter model and explain your change.

Exit ticket: What did your source help you understand? What would you check next?

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See through an artist's eyes

LESSON 08 | Art / observation and interpretation

How do artists help us notice details?

Name: _____ Date: _____ Partner: _____

1. The Met educator resources

Open the linked resource title above.

Choose an artwork. Separate visual observations from interpretations.

2. National Gallery of Art learning

Open the linked resource title above.

Compare two artworks using line, shape, color and texture.

3. Tate Kids

https://www.tate.org.uk/kids

Plan a collage about your local landscape using found textures.

4. Looking closely printable

https://www.metmuseum.org/learn/educators/curious-planet-printable-2015.pdf

Optional extension: use a looking frame to sketch a tiny detail.

Exit ticket: What did your source help you understand? What would you check next?

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Check before you share

LESSON 09 | Media literacy / trust and verification

What makes a source useful for this question?

Name: _____ Date: _____ Partner: _____

1. News Literacy Project education

Open the linked resource title above.

Write three checks you would make before sharing a surprising claim.

2. Common Sense education

https://www.commonsense.org/education

Create a class checklist for using online information responsibly.

3. PBS LearningMedia

https://www.pbslearningmedia.org/

Find two explanations of a topic. Note audience and evidence.

4. KQED education

Open the linked resource title above.

Draft a short evidence-based message about a community issue.

Exit ticket: What did your source help you understand? What would you check next?

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Share a community proposal

LESSON 10 | Project / synthesis and reflection

How could evidence help us improve our school?

Name: _____ Date: _____ Partner: _____

1. UN Sustainable Development Goals

https://sdgs.un.org/goals

Connect your project to one goal. Explain the connection precisely.

2. NASA Climate Kids

https://climatekids.nasa.gov/

Check one environmental claim in your proposal against a source.

3. Exploratorium learning

Open the linked resource title above.

Design a small demonstration that explains your proposal's science.

4. micro:bit projects

Open the linked resource title above.

Sketch a simple device that could collect useful classroom data.

Exit ticket: What did your source help you understand? What would you check next?

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