



OFFICE OF K-12 SCIENCE & PLANETARIUM

SCIENCE PARENT NEWSLETTER

FOURTH GRADE

UNIT 3

EARTH SCIENCE

IN SCHOOL...

Students are expected to develop understanding of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation. They apply their knowledge of natural Earth processes to generate and compare multiple solutions to reduce the impacts of such processes on humans. In order to describe patterns of Earth's features, students analyze and interpret data from maps.

STUDENTS WILL KNOW...	STUDENTS WILL BE ABLE TO...
<ul style="list-style-type: none">• Water, ice, wind and vegetation erode and weathers the surface of the earth slowly over time.• We can use maps to identify patterns of Earth's features.	<ul style="list-style-type: none">• Identify the evidence that supports particular points in an explanation.• Make observations and/or measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon.• Analyze and interpret data to make sense of phenomena using logical reasoning.

AT HOME...

ASK YOUR STUDENTS...	ENGAGE YOUR STUDENTS...
<ul style="list-style-type: none">• How can water, ice, wind and vegetation change the land?• What patterns of Earth's features can be determined with the use of maps?• How does change happen?• How do we know what we know?	<ul style="list-style-type: none">• Local, regional, and global patterns of rock formations reveal changes over time due to earth forces. The presence and location of certain fossil types indicates the order in which rock layers were formed.• Rainfall helps to shape the land and affects the type of living things found in a region.• The locations of mountain ranges, deep ocean trenches, ocean floor structures, earthquakes, and volcanoes occur in patterns.• Living things affect the physical characteristics of their regions.



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IN THE COMMUNITY...

- This region of Illinois is well known for gravel mining and many old mines are now county forest preserves. Check out [The Illinois State Geological Survey's](#) website and look for fossils. It can help you identify the fossils then search common types of Illinois fossils.
- Look around your yard and neighborhood for types of erosion. See if you can document an example of each type - wind, water, ice, chemical and living organisms.

U46 STEM EXPO...

- Design an investigation that tests the rates of weathering or erosion on materials or by certain methods.
- Create a detailed map that identifies the natural landforms in the U-46 communities/area.
- Design a model of an earth feature or how earth models formed or changed over time.