

Fossils

MS-ESS2-3. Analyze and interpret data on the distribution of fossils and rocks, continental shapes and seafloor structures to provide evidence of the past plate motions.

BACKGROUND: See the Background Information provided in the *Illinois Fossils* activity book and other publications within the *Illinois Fossils* resources trunk.

OBJECTIVE: Students will use posters, field guides and books to gather and analyze data.

MATERIALS: *Illinois Fossils* resources trunk contents

Suggested Activities

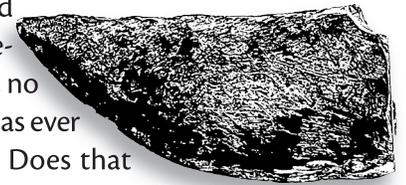
Activity 1



- Tell students to use the *Fossils of Illinois* and *Illinois Fossils* posters, *Illinois Fossils* activity book and other resources in the *Illinois Fossils* trunk to gather data about the different types of fossils found in Illinois, where they are found, when the organisms lived and the types of environments in which they lived. Have them discuss the types of habitats that were home to these organisms and the types of habitats that we have in Illinois today. Do the organisms represented by fossils found in Illinois still live here today? What has changed about the land that is now Illinois since the time when these species lived here? What caused these changes? How can the geology of an area explain the changes?

Activity 2

- Have students complete research to compare the fossil record in other parts of the world at comparable times to the fossil record in Illinois. Are similar types of fossils found at similar geologic time periods? Are there places in the world where fossils are not found? What part of the world has a fossil record most similar to that of Illinois? What could that tell us about its geologic history? To date, no evidence of dinosaurs has ever been found in Illinois. Does that mean that dinosaurs did not live in Illinois? What could this lack of evidence tell us about the geology of the state?



STEM Connections: Evaluations

Science: All of the activities shown above are science-based and can be used for evaluations.

Technology: Have students use the Illinois State Geological Survey's Ask an Expert feature to communicate with an Illinois scientist who studies fossils.

<http://www.isgs.uiuc.edu/?q=ask-expert>

Engineering: Fossils are often found in quarries, gravel pits and mines where they are easily destroyed by machinery. Design a tool that could help stop the loss of information that these fossils contain. Explain your design.

Mathematics: Guide the students in a survey of fossils found in Illinois. Have them graph the locations of various fossil species in the state. Look for overlap between species. Analyze the distributions. What types of habitats did these species require? Are there overlapping species with different habitat requirements? What could that tell us about changes over time?

Training

Additional training about Illinois fossils and on implementing this topic to support performance expectation MS-ESS2-3 can be obtained through ENTICE (Environment and Nature Training Institute for Conservation Education)

workshops from the IDNR. *Illinois Fossils* is a related workshop. See the “Resources” page for more information. The IDNR Division of Education also provides training sessions at teacher conferences throughout the state.



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