

Illinois Wild Mammals

3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

BACKGROUND: See the Background Information, especially the Characteristics, Activity Patterns, Feeding and Mobility sections. Also use the background information provided in the *Biodiversity of Illinois* CD-ROM series (*Biodiversity of Illinois, Volume I: Aquatic Habitats; Biodiversity of Illinois, Volume II: Woodland Habitats; and Biodiversity of Illinois, Volume III: Prairie and Edge Habitats*).

OBJECTIVE: Students will use Illinois-specific mammal resources to conduct research, draw conclusions and support their conclusions with facts.

MATERIALS: *Illinois Wild Mammals* resources trunk, *Illinois Wild Mammals* video, *Illinois Wild Mammals* video podcasts

PLEASE NOTE: The *Biodiversity of Illinois* CD-ROMs are included in the *Illinois Wild Mammals Resources Trunk*. However, the information in the CDs has been updated, expanded and converted into a Web page at <https://www2.illinois.gov/dnr/education/Pages/Biodiversity-of-Illinois.aspx>. You may find the information easier to access at this Web page.



Suggested Activities

- Talk with the students about the four main habitat types in Illinois: aquatic; woodland; prairie; and urban. Ask them to do research using the *Biodiversity of Illinois* CD-ROM series and then define each of the habitat types. Hold a discussion about the types of traits that would be needed for mammals to survive in each habitat.
- Assign each student or a team of two students one of the following mammals. Ask them to use the reference materials provided in the resources trunk to determine which habitat or habitats are most suitable for this mammal to live in. Do not give them the habitat category when you assign the mammal to the students. The students should be able to defend their choice and tell why the mammal could not live well or at all in the other habitat(s). Conduct a general discussion about habitat types and the mammals adapted to them to close the session.

Woodland

hoary bat, Indiana bat, eastern chipmunk, southern flying squirrel, woodland vole, gray fox

Prairie

least shrew, thirteen-lined ground squirrel, Franklin's ground squirrel, western harvest mouse, deer mouse, prairie vole, least weasel, American badger

Aquatic

swamp rabbit, American beaver, marsh rice rat, muskrat, North American river otter

Urban, Agricultural, Generalists

Virginia opossum, raccoon, coyote, eastern fox squirrel, eastern gray squirrel, red fox, striped skunk, white-tailed deer

STEM Connections: Evaluations

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

Technology: Students will use the *Biodiversity of Illinois* CD-ROM series to conduct research. These CD-ROMs are networkable.

Engineering: Have the students make a drawing of the mammal that they were assigned. Tell them to draw it again with revised or additional features that would allow it to survive in a habitat where it could not now successfully live. The students must indicate what type of habitat they are adapting it to survive in and be able to discuss the traits it was given. For those students who were assigned generalist species, tell them to select a single habitat type and draw revised or additional

features for their mammal to make it suitable for that habitat type.

Mathematics: Have the students develop a way to “measure” if animals are surviving well in a habitat. What would they look for? How would they measure these traits? How would they know when the animals were not surviving well? What categories could they use for their measurements?

Training

Additional training about Illinois mammals and on implementing this topic to support performance expectation 3-LS4-3 can be obtained through ENTICE (Environment and Nature Training Institute for Conservation Education)

workshops from the IDNR. *Illinois Wild Mammals* is an example of a related workshop. The Illinois Department of Natural Resources Division of Education also provides training sessions at teacher conferences throughout the state.



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