Early Learners Exercise Trail (E.L.E.X.)

Pre-/Post-Site Materials

Forest Preserve District
OF WILL COUNTY

Bringing People and Nature Together

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Field Trip at Plum Creek Nature Center

Correlated State Standards

Identified ELA, Science and Math Standards are detailed below specific to this education program.
Source: Forest Preserve District of Will County, the Council of Chief State School Officers (Common Core), and the National Research Council (Next Generation Science Standards)

ELA Standards

Subject Codes	Kindergarten	Grade 1	Grade 2	Grade 3
Reading for Information (RI)	RI.K.1-RI.K.4, RI.K.7	RI.1.1-RI.1.4, RI.1.7	RI.2.1-RI.2.4, RI.2.7	RI.3.1-RI.3.4, RI.3.7
Speaking and Listening (SL)	SL.K.2, SL.K.4, SL.K.5	SL.1.2, SL.1.4, SL.1.5	SL.2.2, SL.2.4, SL.2.5	SL.3.2, SL.3.4, SL.3.5
Language (L)	L.K.4	L.1.4	L.2.4	L.3.4

NGSS Standards

Disciplinary Idea	Kindergarten	Grade 1	Grade 2	Grade 3
Earth and Space Sciences 3, Earth and Human Activity	K.ESS.3.2			
Life Science 2, Ecosystems		1.LS1.1, 1.LS1.2		3.LS2.1
Life Science 4, Biological Evolution				3.LS4.4

Math Standards

Subject Codes	Kindergarten	Grade 1
Counting and Cardinality (CC)	K.CC.5, K.CC.6	
Measurement and Data (MD)	K.MD.2	1.MD.4

COMMON CORE STATE STANDARDS INITIATIVE
PREPARING AMERICA'S STUDENTS FOR COLLEGE & CAREER

NEXT GENERATION SCIENCE STANDARDS

Resources

Recommended Readings

- Cronin, Doreen. "Diary of a Spider." HarperCollins. 2013.
- Cronin, Doreen. "Diary of a Worm." HarperCollins. 2003.
- Goodman, Susan. "Claws, Coats, and Camouflage." Millbrook Press. 2001.

Lesson Plans and Webinars

Source: National Wildlife Federation

- **Pollinator's Journey**
  (https://www.nwf.org/~/media/PDFs/Be%20Out%20There/National-Wildlife-Week/2011/Pollinators-Journey-Kto4.pdf)
  Students will perform a role play about a threatened migratory pollinator.

- **What's Your Habitat?**
  (*https://www.nwf.org/~/media/PDFs/Be%20Out%20There/Schoolyard%20Habitats/whatsyourhabitat2.pdf*)
  Students explore basic survival needs of humans and wildlife by drawing their own homes and neighborhoods.

- **Call of the Wild**
  (*https://www.nwf.org/~/media/PDFs/Be%20Out%20There/National-Wildlife-Week/2011/Call-of-the-Wild-K-4.pdf*)
  For K-2, students will learn that frogs have three main stages in their life cycle – eggs, tadpoles and frogs. For grades 3-4,students will learn that frogs have five stages of development – eggs, tadpoles, tadpoles with legs, froglets and adult frogs.

- **Links in a Food Chain**
  (*https://www.nwf.org/~/media/PDFs/Be%20Out%20There/National-Wildlife-Week/2011/Links-in-a-Food-Chain-K-4.pdf*)
  Students will learn what a food chain is and sing or act out the rhyme "There Once Was a Daisy."

- **Habitat Web**
  (*https://www.nwf.org/~/media/PDFs/Be%20Out%20There/Schoolyard%20Habitats/HabitatWeb.pdf*)
  Students explore the web of connections among living and non-living things.

Activities

What Animal Am I?

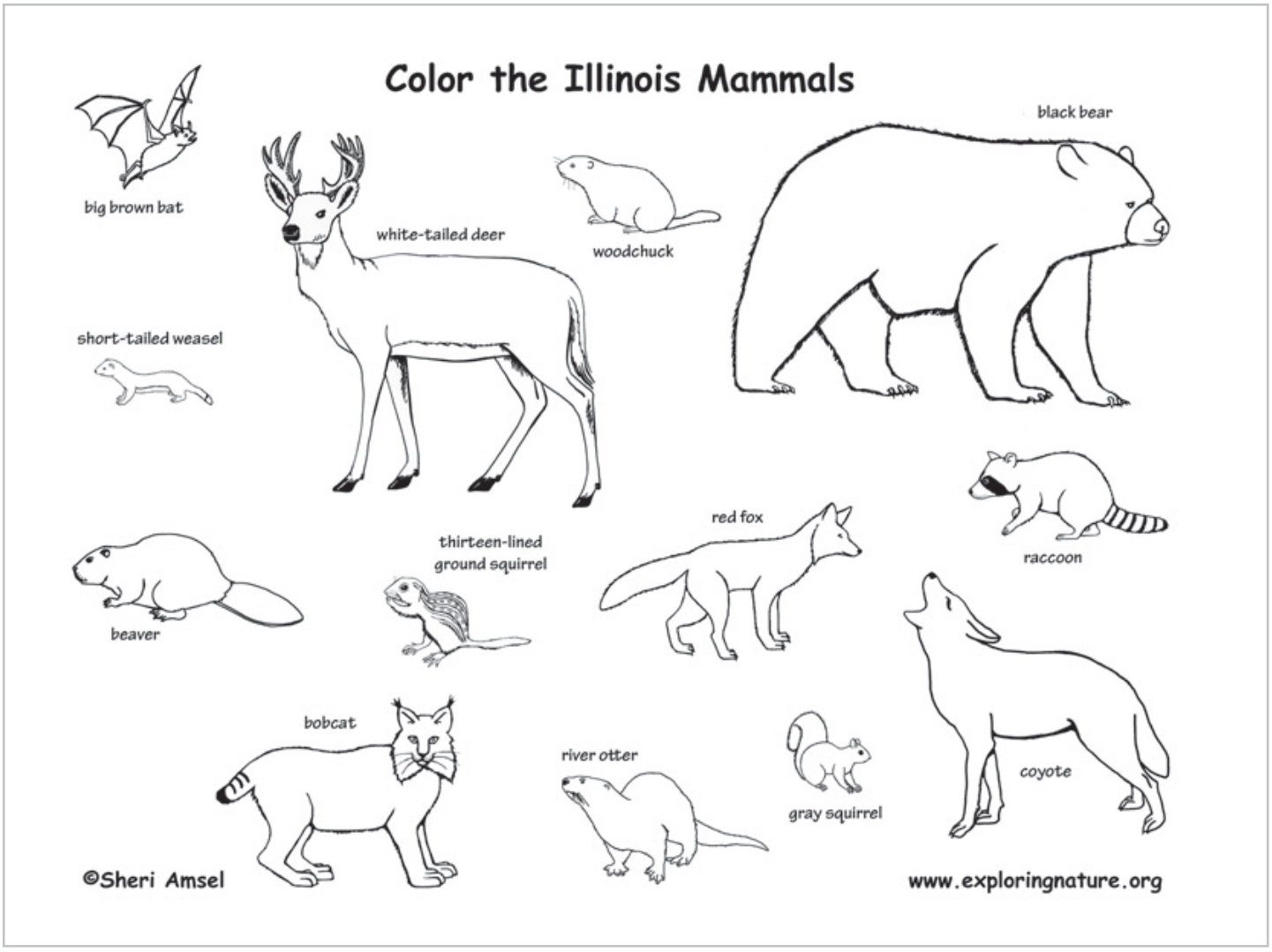
Summary:
Students will familiarize themselves with the native animals of Illinois' physical characteristics through the experience of playing a game. After the activity, have the students color the Illinois mammals below for some extra fun!

Materials Needed:

- 16 different animal pictures (provided on the following pages)
- Clothes pins

Instructions:

1. Pin a picture of an animal on the back of one of the children in the group.
2. The student then asks questions to discover what animal it is.
3. The other children can answer only "yes," "no," or "maybe."



Illinois Habitats

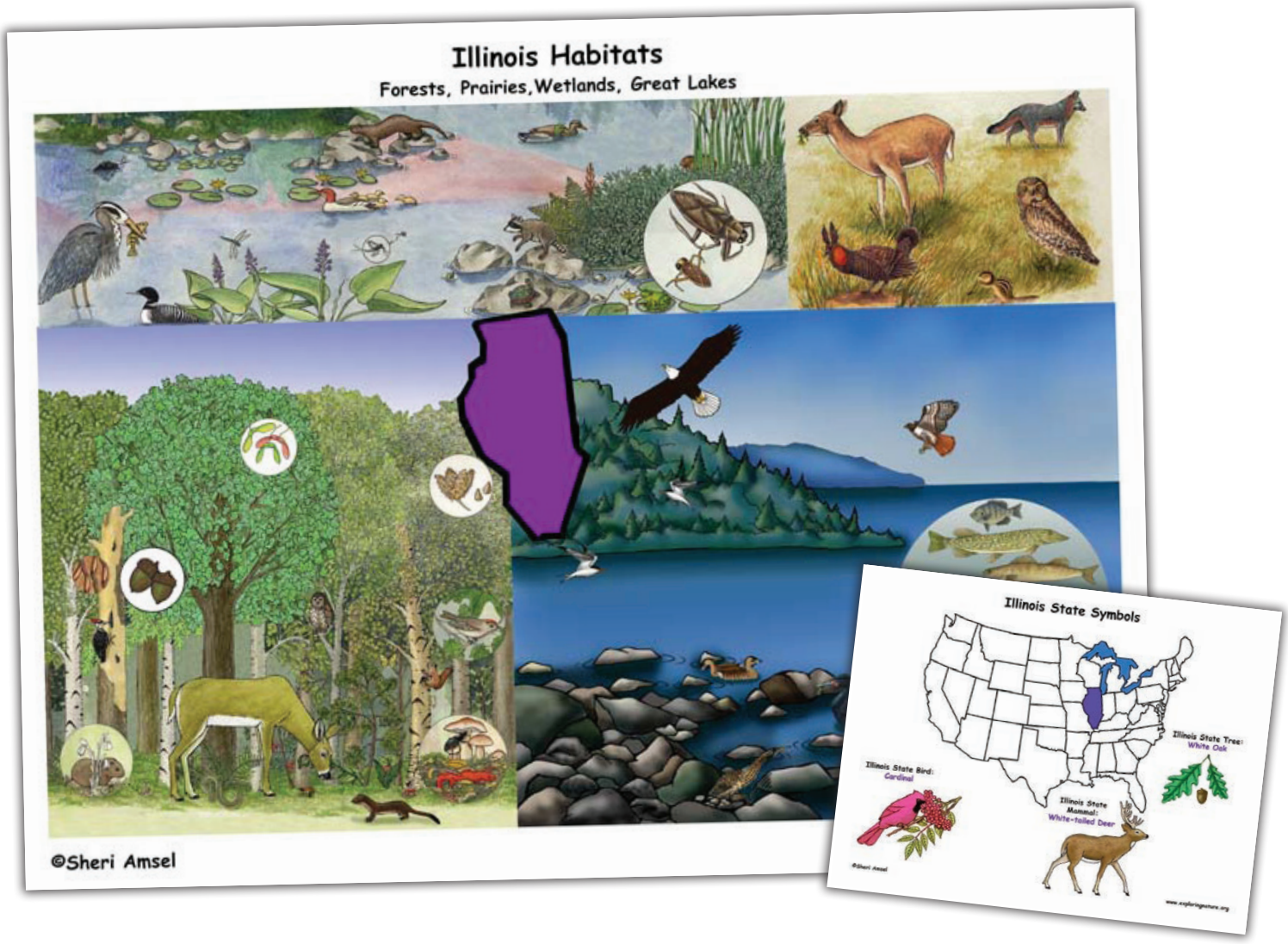
Sources: Exploring Nature and Illinois Department of Natural Resources

A habitat is the place in which a species is suited to live. It contains the food, water, shelter and space necessary for the species' survival. Habitat requirements may be similar, but they are unique for each species. For example, birds, frogs, fungi and other species may live on or in a tree at the same time. They are all finding what they need to survive and live together. Here are some examples of the habitats found in Illinois:

Grasslands
Historically, more than half of Illinois was tallgrass prairie. The grass – big bluestem and Indian grass among others – reached a height of 10 feet in places.

Forest
Only 15% of Illinois is forested (about 4.4 million acres), but 97% of those forests are hardwood with maple, black walnut, oak, ash, hickory and others. Illinois has more than 250 species of trees in its forests.

Wetlands
Wetlands are important natural communities. They provide valuable wildlife habitat, stabilize shorelines and protect the land from storm surges and flooding. They act as filters for pollutants that run off the land from farms, towns and cities. Illinois has lost over 90% of its native wetlands and of the wetlands still left in the state, 25% of are man-made.



What is Adaptation?

Summary:
Students use basic science concepts and facts to relate human adaptations to other animal adaptations.

Materials Needed:

- Pictures of people living, working and playing in different climates (provided on the following page)
- Newsprint
- Pencils

Instructions:

1. **Adaptation** in plants and animals refers to the way they can adjust or change to be able to live where and how they do. Many animals and plants can live only in certain places. People have made adaptations so they can live for periods of time almost anywhere. Discuss with your students some of the adaptations (adjustments) that have been made to enable them to be comfortable in the classroom today. List important ones on the board.

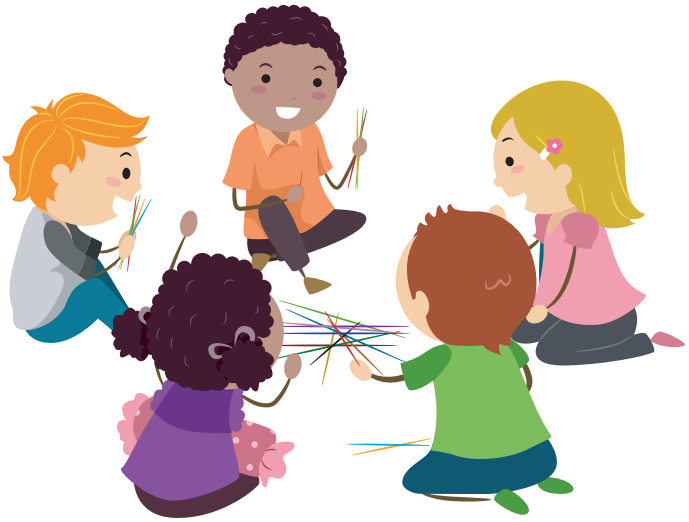
2. Divide students into groups of four or five and have them look at the pictures of ways people adapt to live, work and play all over the world. Make a list of some ways humans are different from other animals in their ability to adapt.

3. From the pictures, have students choose the most interesting adaptations and share them with the class.

The More You Know

Animals have many different ways to survive winter. Some mammals, like groundhogs, sleep through it, hibernating during the coldest part of the year. Others, including many bird species, escape it altogether by migrating south for the winter. But others simply have to deal with it. For these animals, important adaptations allow them to survive in even the most frigid weather. Some, such as chipmunks and squirrels, add an extra layer of fat to help insulate their bodies from the cold; others, like beavers and mice (and again, chipmunks and squirrels), store food in the warmer months to ensure they have an ample supply during winter.

Pick-up Sticks Thumb Challenge



Summary:
Students will experience the importance of their own adaptation, their thumbs, by playing a game where they use all of their fingers with thumbs and without thumbs.

How to Play Pick-up Sticks:

1. Bundle the sticks in your hand and then drop them on the table.
2. Take turns picking up as many sticks as you can without moving any other stick except the one you are picking up.
3. If you move a stick, then your turn is over.
4. The player with the most points at the end of the game wins.

Thumb Challenge:

1. Students should play the game once using their thumbs, and then a second time without the use of their thumbs.
2. Divide your classroom into groups of four or five. Flip a coin to determine which player in each group goes first. Play until the last stick has been picked up or determine your number of sticks. The player that wins the coin toss should hold the sticks in a bundle in his hand with one side of his/her fist on the playing surface. You can play pick-up sticks on a table or on a smooth floor.
3. Release the bundle of sticks quickly and draw your hand away. The sticks will scatter and pile up.
4. Use the black stick as a helpful tool if you are the player who draws it successfully out of the pile. You may use the black stick to help you lift any other sticks out of the pile, to separate any sticks that are close together, or to flip a stick off another that it is resting on.
5. Move around in a clockwise or counterclockwise direction to the next player. That player may choose to draw more sticks from the pile or begin again, gathering and scattering the remaining sticks. If any player succeeds in picking up all of the sticks, that player begins the next round, scattering the bundle again and drawing sticks until he loses a turn.
6. Pick up a red, then blue and then green stick in that order, if possible, and those sticks will count for double their value.
7. Win the game by reaching the pre-determined winning score first over a number of rounds, or by picking up the most sticks in a single round.

**If you would like to make your own pick-up sticks game, using acrylic paint, paint three cotton swabs blue (8 points), eight cotton swabs green (3 points), 14 cotton swabs red (1 point) and one cotton swab black.*

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