cook museum of NATURAL SCIENCE®

Connections for Scouting America

The Cook Museum of Natural Science (CMNS) provides a hands-on, immersive experience where visitors can explore, interact with, and learn about nature.

A visit to the Exhibits or an Education Class can provide supplemental activities and experiences for Scouts, but typically do not meet all the requirements to complete a badge. Below are some ways that leaders, volunteers, and parents can align the visit to badge requirements that the Scouts may be working toward.

Some of the listed requirements below can be met by a visit to the Museum and others are just touched upon.

Rank	Badge/Adventure	Badge Activity	CMNS Exhibits	CMNS Classes/Camps
Tiger	Tigers in the Wild Adventure	2 - With your den leader or Tiger adult partner, learn about the Outdoor Code.	Visit Know Before You Go to learn about Leave No Trace.	
Tiger	Tigers in the Wild Adventure	3c - A game of I Spy that includes objects that are natural or manmade.	Visit any Exhibit.	
Tiger	Tigers in the Wild Adventure	3d - Cub Scouts and adult partners work together to identify as many things they can that are natural and manmade.	Visit any Exhibit.	
Tiger	Tiger Elective Adventure: Sky Is The Limit	3 - Observe in the sky or select from a book, chart, computer, or electronic device two constellations that are easy to see in the night sky. With your den or Tiger adult partner, find out the names of the stars that make up the constellation and how the constellation got its name. Create a picture of one of the constellations.	Visit the Looking Up Exhibit and use the Hubble and James Webb Space Telescopes Interactive.	
Wolf	Paws on the Path Adventure	4 - Learn about the Outdoor Code and Leave No Trace Principle for Kids.	Visit Know Before You Go to learn about Leave No Trace.	
Wolf	Wolf Elective Adventures: Code of the Wolf	3c - Identify three different types of shapes that you see in nature.	Visit Patterns in Nature area of the Discover Exhibit.	
Bear	Bear Habitat	7 - "Respect Wildlife" From a safe distance, identify as you look up, down, and around you, six signs of any mammals, birds, insects, reptiles.	All of the animals in the Exhibits are still considered wildlife. They are not pets. Visit these Exhibits to see live animals: a) Discover Exhibit b) Rivers & Streams Exhibit c) Oceans Exhibit d) The Wonderful World of Insects Exhibit	

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Bear	Bear Elective Adventure: A Bear Goes Fishing	1d - Discover and learn about three types of fish in your area. Draw a color picture of each fish, record what each one likes to eat, and describe what sort of habitat each one likes.	Visit the Rivers & Streams Exhibit to see live and taxidermy freshwater fish that would be found in North Alabama. Though they are not native to North Alabama you can all see a variety of saltwater fish in the Oceans Exhibit, including species found in the Caribbean Sea.	
Weblos	Webelos Elective Adventure: Earth Rocks!	1 - Examine the three types of rocks - sedimentary, igneous, and metamorphic.	Visit the Foundations Exhibit.	
Weblos	Webelos Elective Adventure: Earth Rocks!	2 - Find a rock, safely break it apart and examine it.		• Geodes are available for purchase in the Museum Store.
Arrow of Light	AOL Elective Adventure: Into the Wild	1 - Visit a place with a variety of wild animals. Select one of the animals and observe its behavior. Use your selected animal to complete the remaining requirements.	Visit these Exhibits to learn about different animals: a) Discover Exhibit b) Rivers & Streams Exhibit c) Oceans Exhibit d) Wonderful World of Insects Exhibit	• Herpetology 101 (Grades 3 - 5)
Arrow of Light	AOL Elective Adventure: Into the Wild	3 - Investigate how your animal coexists with other animals in the wild.	Visit these Exhibits to learn about different animals: a) Discover Exhibit b) Rivers & Streams Exhibit c) Caves Exhibit d) Forests Exhibit f) Birds Exhibit g) Curiosity Cabin Exhibit g) Wonderful World of Insects Exhibit	• Herpetology 101 (Grades 3 - 5)
Arrow of Light	AOL Elective Adventure: Into the Woods	2 - Determine if your tree is deciduous or evergreen.	Visit these Exhibits to learn about different trees: a) Rivers & Streams Exhibit b) Forests Exhibit	
Arrow of Light	AOL Elective Adventure: Into the Woods	3 - Determine if your tree is native or was introduced to your area.	Visit these Exhibits to learn about different trees: a) Rivers & Streams Exhibit b) Forests Exhibit	

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Arrow of Light	AOL Elective Adventure: Into the Woods	4 - Find out how your tree deals with wildfire.	Visit this Exhibit to learn about wild and forest fires: a) Forests Exhibit (long leaf pine)	
Arrow of Light	AOL Elective Adventure: Into the Woods	5 - Learn how wildlife uses your tree.	Visit these Exhibits to learn about how wildlife uses trees: a) Rivers & Streams Exhibit b) Forests Exhibit	
Merit Badge	Astronomy	4a - Identify in the sky 10 constellations, at least four of which are in the zodiac.	Visit the Looking Up Exhibit and use the Hubble & James Webb Space Telescopes Interactive.	
Merit Badge	Astronomy	4b - Identify in the sky eight conspicuous stars, five of which are of magnitude 1 or brighter.	Visit the Looking Up Exhibit and use the Hubble & James Webb Space Telescopes Interactive.	
Merit Badge	Astronomy	4d - Explain what we see when we look at the Milky Way.	Visit the Looking Up Exhibit and use the Hubble & James Webb Space Telescopes Interactive.	
Merit Badge	Astronomy	5a - List the names of the five most visible planets. Explain which ones can appear in phases similar to lunar phases and which ones cannot, and explain why.	Visit the Looking Up Exhibit.	
Merit Badge	Astronomy	5c - Describe the motion of the planets across the sky.	Visit the Looking Up Exhibit.	
Merit Badge	Astronomy	6a - Describe the composition of the Sun, its relationship to other stars, and some effects of its radiation on Earth's weather and communications.	Visit the Looking Up Exhibit.	
Merit Badge	Bird Study	2 - Show that you are familiar with the terms used to describe birds by doing the following: a) Sketch or trace a perched bird and then label 15 different parts of the bird. b) Sketch or trace an extended wing and label types of wing feathers.	Visit the Birds Exhibit to learn more about using field marks to identify birds. Study the birds in the following Exhibits: a) Discover Exhibit b) Rivers & Streams Exhibit c) Forests Exhibit d) Birds Exhibit e) Curiosity Cabin Exhibit	
Merit Badge	Bird Study	6 - Describe to your counselor how certain orders of birds are uniquely adapted to a specific habitat. In your description, include characteristics such as the size and shape of the following: a) Beak b) Body c) Leg and foot d) Feathers/plumage	Study the birds in the following Exhibits: a) Discover Exhibit b) Rivers & Streams Exhibit c) Forests Exhibit d) Birds Exhibit e) Curiosity Cabin Exhibit	

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Merit Badge	Bird Study	10b - Identify a bird species that is on the endangered or threatened list. Explain what caused their decline. Discuss with your counselor what can be done to reverse this trend and what can be done to help remove the species from the endangered or threatened list.	Use the Whooping Crane Interactive in the Rivers & Streams Exhibit.	
Merit Badge	Camping	2 - Learn the Leave No Trace Seven Principles and the Outdoor Code, and explain what they mean. Write a personal and group plan for implementing these principles on your next outing.	Visit Know Before You Go to learn about Leave No Trace.	
Merit Badge	Disabilities Awareness	4a - Access. Visit TWO of the following locations and take notes about the accessibility to people with disabilities. In your notes, give examples of five things that could be done to improve upon the site and five things about the site that make it friendly to people with disabilities. Discuss your observations with your counselor. 1) Your school 2) Your place of worship 3) A Scouting event or campsite 4) A public exhibit or attraction (such as a theater, museum, or park)	Visit the Museum	
Merit Badge	Disabilities Awareness	4b - Accommodation. Visit TWO of the following locations and take notes while observing features and methods that are used to accommodate people with invisible disabilities. While there, ask staff members to explain any accommodation features that may not be obvious. Note anything you think could be done to better accommodate people who have invisible disabilities. Discuss your observations with your counselor. 1) Your school 2) Your place of worship 3) A Scouting event or campsite 4) A public exhibit or attraction (such as a theater, museum, or park)	Visit the Museum	
Merit Badge	Environmental Science	6a - Do research on one endangered species found in your state. Learn about its natural habitat, why it is endangered, what is being done to preserve it, and how many individual species are left in the wild. Prepare a 100-word report about the species and include a drawing or photo. Present your report to your patrol or troop.	Visit the following Exhibits: a) Discover Exhibit b) Rivers & Streams Exhibit c) Caves Exhibit d) Oceans Exhibit e) Forests Exhibit	

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Merit Badge	Environmental Science	6b - Do research on one species that was endangered or threatened but that has now recovered. Learn about how the species recovered, and what its new status is. Prepare a 100-word report on the species and include a drawing or photo. Present your report to your patrol or troop.	Visit the following Exhibits: a) Rivers & Streams Exhibit b) Arctic/Desert Exhibit	
Merit Badge	Forestry	7a - Describe the consequences to forests that result from FIVE of the following elements: wildfire, absence of fire, destructive insects, loss of pollinating insect population, tree diseases, air pollution, overgrazing, deer or other wildlife overpopulation, improper harvest, and urbanization.	Visit the Forest and Wonderful World of Insects Exhibits	
Merit Badge	Forestry	7b - Explain what can be done to reduce the consequences you discussed in 7a.	Visit the Museum	
Merit Badge	Geology	1 - Define geology. Discuss how geologists learn about rock formations. In geology, explain why the study of the present is important to understanding the past.		• Geology Lab (Grades 5 - 8)
Merit Badge	Geology	2 - Pick three resources that can be extracted or mined from Earth for commercial use. Discuss with your counselor how each product is discovered and processed.	Visit the Foundations Exhibit.	
Merit Badge	Geology	4c(1) - Define rock. Discuss the three classes of rocks including their origin and characteristics.	Visit the Foundations Exhibit.	• Geology Lab (Grades 5 - 8)
Merit Badge	Geology	4c(2) - Define mineral. Discuss the origin of minerals and their chemical composition and identification properties, including hardness, specific gravity, color, streak, cleavage, luster, and crystal form.	Visit the Foundations Exhibit.	• Geology Lab (Grades 5 - 8)
Merit Badge	Geology	4c(3b) - With your counselor's assistance, identify 15 different rocks and minerals. List the name of each specimen, tell whether it is a rock or mineral, and give the name of its class (if it is a rock) or list its identifying physical properties (if it is a mineral).	Visit the Foundations Exhibit.	
Merit Badge	Insect Study	2a - Tell how insects are different from all other animals.	Visit the Wonderful World of Insects Exhibit.	
Merit Badge	Insect Study	2b - Show how insects are different from centipedes and spiders.	Visit the Wonderful World of Insects Exhibit.	
Merit Badge	Insect Study	2c - Point out and name the main parts of an insect.	Visit the Wonderful World of Insects Exhibit.	
Merit Badge	Insect Study	2d - Describe the characteristics that distinguish the major orders of insects.	Visit the Wonderful World of Insects Exhibit.	

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Merit Badge	Insect Study	4b - Observe 20 different live species of insects in their habitat. In your observations, include at least four orders of insects.	Visit the Wonderful World of Insects Exhibit.	
Merit Badge	Insect Study	4c - Make a scrapbook of the 20 insects you observe in 4b. Include photographs, sketches, illustrations, and articles. Label each insect with its common and scientific names, where possible. Share your scrapbook with your counselor.	Visit the Wonderful World of Insects Exhibit.	
Merit Badge	Mammal Study	1 - Explain the following terms of animal, invertebrate, vertebrate, and mammal. Name three characteristics that distinguish mammals from all other animals.	Visit the Wonderful World of Insects Exhibit.	
Merit Badge	Mammal Study	2 - Explain how the animal kingdom is classified. Explain where mammals fit in the classification of animals. Classify three mammals from phylum through species.	Visit the Wonderful World of Insects Exhibit.	
Merit Badge	Mammal Study	4e - Visit a natural history museum. Report on how specimens are prepared and cataloged. Explain the purposes of museums.	Visit the Museum.	
Merit Badge	Mining in Society	1a - Select 10 different minerals. For each one, name a product for which the mineral is used.	Visit the Foundations Exhibit.	
Merit Badge	Mining in Society	1c - From the list of minerals you chose for requirement 1a, determine the countries where those minerals can be found, and discuss what you learned with your counselor.	Visit the Foundations Exhibit.	
Merit Badge	Nature	1 - Name three ways in which plants are important to animals. Name a plant that is protected in your state or region, and explain why it is at risk.	Visit the following Exhibits: a) Rivers & Streams Exhibit b) Forests Exhibit	
Merit Badge	Nature	2 - Name three ways in which animals are important to plants. Name an animal that is protected in your state or region, and explain why it is at risk.	Visit the following Exhibits: a) Discover Exhibit b) Rivers & Streams Exhibit c) Caves Exhibit d) Oceans Exhibit e) Forests Exhibit	
Merit Badge	Nature	4c(1) Reptiles And Amphibians - Show that you can recognize the venomous snakes in your area.	Visit Know Before You Go.	
Merit Badge	Nature	4d(1) Insects And Spiders - Collect and identify either in the field or through photographs of 10 species of insects or spiders. Photos may be taken with your own equipment or gathered from other sources.	Visit the following Exhibits: a) Discover Exhibit b) The Wonderful World of Insects Exhibit	
Merit Badge	Nature	4e(1) Fish - Identify two species of fish native to your area.	Visit the Rivers & Streams Exhibit.	

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Merit Badge	Nature	5 - Discuss the principle of Leave No Trace and the Outdoor Code and how they relate to nature. Explain how you have followed the Leave No Trace Seven Principles and the Outdoor Code while in natural areas during field observation, specimen collection, and identification.	Visit Know Before You Go.	
Merit Badge	Oceanography	8b - Visit one of the following and write a 500-word report about your visit: (1) an oceanographic research ship, or (2) an oceanographic institute, marine laboratory, or marine aquarium.	Visit the Oceans Exhibit.	
Merit Badge	Plant Science	3 - Explain how honeybees and other pollinating insects are important to plant life.	Visit the Discover Exhibit.	
Merit Badge	Plant Science	6 - List by common name at least 10 native plants and 10 cultivated plants that grow near your home. List five invasive nonnative plants in your area and tell how they may be harmful. Tell how the spread of invasive plants may be avoided or controlled in ways that are not damaging to humans, wildlife, and the environment.	Visit the following Exhibits: a) Rivers & Streams Exhibit b) Forests Exhibit c) Hilltop Woodland Display (View from the Overlook Walkway)	
Merit Badge	Plant Science	Supplemental - not a requirement	Look through the Naturalist Journal in Curiosity Cabin.	
Merit Badge	Reptile and Amphibian Study	1 - Describe the identifying characteristics of six species of reptiles and four species of amphibians found in the United States. For any four of these, make sketches from your own observations or take photographs. Show markings, color patterns, or other characteristics that are important in the identification of each of the four species. Discuss the habits and habitats of all 10 species.	Visit the following Exhibits: a) Know Before You Go b) Discover Exhibit c) Rivers & Streams Exhibit d) Caves Exhibit e) Arctic/Desert Exhibit f) Oceans Exhibit g) Forests Exhibit	• Herpetology 101 (Grades 3 - 5)
Merit Badge	Reptile and Amphibian Study	3 - Describe the main differences between a) Amphibians and reptiles b) Alligators and crocodiles c) Toads and frogs d) Snakes and lizards		• Herpetology 101 (Grades 3 - 5)
Merit Badge	Reptile and Amphibian Study	4 - Explain how reptiles and amphibians are an important component of the natural environment. List four species that are officially protected by the federal government or by the state you live in, and tell why each is protected. List three species of reptiles and three species of amphibians found in your local area that are not protected. Discuss the food habits of all 10 species.		• Herpetology 101 (Grades 3 - 5)
Merit Badge	Reptile and Amphibian Study	5 - Compare how reptiles reproduce to how amphibians reproduce.		• Herpetology 101 (Grades 3 - 5)

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Merit Badge	Reptile and Amphibian Study	6 - From observation, describe how snakes move forward. Describe the functions of the muscles, ribs, and belly plates.	Visit the Discover Exhibit.	• Herpetology 101 (Grades 3 - 5)
Merit Badge	Reptile and Amphibian Study	7 - Describe in detail six venomous snakes and the one venomous lizard found in the United States. Describe their habits and geographic range. Tell what you should do in case of a bite by a venomous species.	Visit the following Exhibits: a) Know Before You Go b) Arctic/Desert Exhibit	• Herpetology 101 (Grades 3 - 5)
Merit Badge	Reptile and Amphibian Study	8b - Choose a reptile or amphibian that you can observe or foster at a local zoo, aquarium, nature center, local rescue, or other such exhibit (such as your classroom or school). Study the specimen weekly for a period of three months. At each visit, sketch the specimen in its captive habitat and note any changes in its coloration, shedding of skins, and general habits and behavior. Discuss with your counselor how the animal you observed was cared for to include its housing and habitat, how the lighting, temperature, and humidity were maintained, and any veterinary care requirements. Find out, either from information you locate on your own or by talking to the caretaker, what this species eats and what are its native habitat and home range, preferred climate, average life expectancy, and natural predators. Also identify any human caused threats to its population and any laws that protect the species and its habitat. After the observation period, share what you have learned with your counselor.	Visit the following Exhibits: a) Discover Exhibit b) Rivers & Streams Exhibit	• Herpetology 101 (Grades 3 - 5)
Merit Badge	Reptile and Amphibian Study	9b - Identify by sight eight species of reptiles or amphibians.	Visit the following Exhibits: a) Know Before You Go b) Discover Exhibit c) Rivers & Streams Exhibit d) Caves Exhibit e) Arctic/Desert Exhibit f) Oceans Exhibit g) Forests Exhibit	• Herpetology 101 (Grades 3 - 5)
Merit Badge	Weather	2 - Name five dangerous weather-related conditions. Give the safety rules for each when outdoors and explain the difference between a severe weather watch and a warning. Discuss the safety rules with your family.	Visit the Foundations Exhibit.	
Merit Badge	Weather	5 - Tell what causes wind, why it rains, and how lightning and hail are formed.	Visit the Foundations Exhibit.	

If you identify more connections, we would love to hear about it. You can let us know at **museumprogramming@cookmuseum.org.**