KU NATURAL HISTORY MUSEUM
The University of Kansas

Museum Discovery
Grades 6-8, Families

Explore the museum with our scavenger hunt. It can be used in a structured way to investigate select exhibits or as a general guide to the galleries on each floor. For suggestions on how to use this guide with your group see the Scavenger Hunt/Museum Checklist Chaperone Guide on our website.

Fourth Floor (Panorama)

1. (a) Below are three animal adaptations and the scientific names of several animals in the Panorama. Find the animals and match them with the correct adaptation.
(DF=deciduous forest, RM=rocky mountains, AC=arctic coast, RF=rain forest, AT=arctic tundra)

	Didelphis virginiana (DF)
	Lontra canadensis (RM)
Prehensile (grasping) tail	*Phoca vitulina* (AC)
Grip on mountain slope	*Ovis canadensis* (RM)
	Alouatta palliata (RF)
Aquatic body shape (e.g. like a torpedo or submarine)	*Odobenus rosmarus* (AC)
	Ovis dalli (AT)
	Tamandua mexicana (RF)

(b) Think beyond what you see in the exhibit. List another animal, for each adaptation.

Prehensile grasping tail →_____

Grip on mountain slope →_____

Aquatic body shape →_____

Third Floor (Fossil Galleries and Bugtown)

Find the *Bambiraptor* exhibit.

2. Many scientific names use Greek or Latin words to describe something distinctive about the organism. For example, the name *Bambiraptor* means 'small plunderer' (plunder meaning 'to steal'). Use the word bank on the next page to match the meaning with the Greek/Latin root highlighted in the name. All the animals are found in the fossil galleries.

knife	tooth	horn
crest	wing	

Parasauro**loph**us = _____

Smilodon = _____

Pteranodon = _____

Mast**odon** = _____

Tri**cera**tops = _____

Make your way to Bugtown.

3. The image below is an evolutionary tree that shows the relationships between different groups of insects. Some of the shared characters or features that support these relationships are marked, such as three body parts uniting all the groups.

   Look at the live and preserved insects in Bugtown, and match the characters listed below with the numbers on the tree.

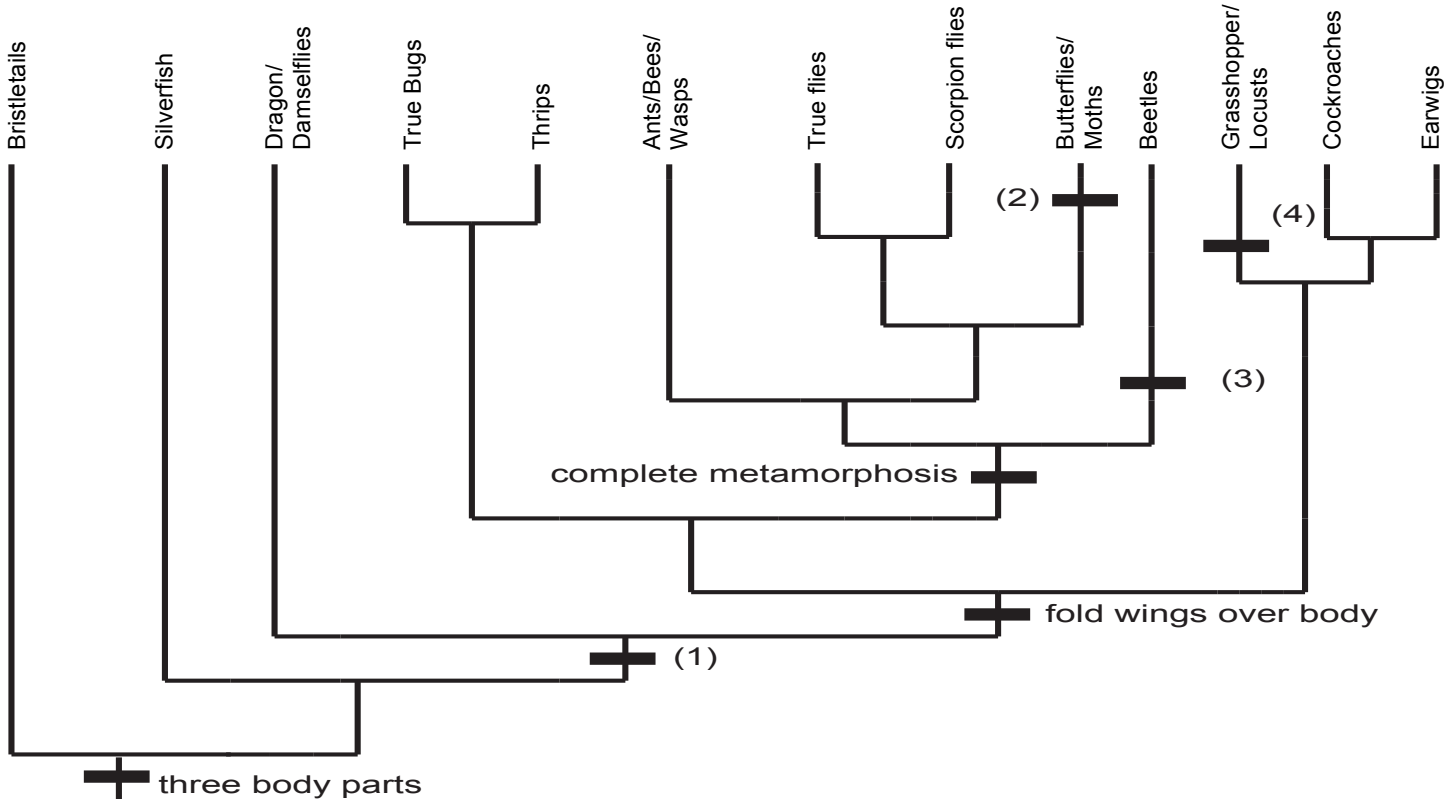
   Hardened forewing _____

   Wings _____

   Lost ability to fold wings over body_____

   Saltatory* hind legs _____

   *hind legs approximately twice as long as front legs



Insects

Go back to the fossil gallery.

4. Aquatic vertebrates such as marine reptiles (e.g. mosasaurs, ichthyosaurs, plesiosaurs) and marine mammals (e.g. dolphins) appear superficially similar to fish, but are not closely related.

   (a) List two similarities between the *Xiphactinus* (zi-fact-tin-us) on exhibit, and the nearby mosasaur.

   _____

   (b) List two differences between the fish and the mosasaur. *Hint: look for features that are evidence of a terrestrial or land-dwelling ancestry in the mosasaur.*

   _____

Fifth Floor (Explore Evolution)

Find the Finch display.

5. (a) Beaks from a small population of birds are shown below. Based on the study conducted by Rosemary and Peter Grant, which birds would be more likely to survive during the **dry season**. Circle your choices.

   (b) Does your answer change for the wet season? If so, why?

   _____

   _____

6. As of 2010, the Grants have been studying these finches for 37 years. What are the advantages of studying something for so long?

   _____

   _____

7. Look at the exhibit on Hawaiian fruit fly evolution, and circle the features and strategies listed below that male fruitflies use to try and attract females.

Gifts of food	Songs by vibrating wings	Wing patterns
Fuzzy base of antenna	Hairy legs	Pheromones (chemicals that trigger response)

Evolution Misconceptions (Fifth and Sixth Floor)

8. (a) Look for the evolution misconceptions posted throughout the fifth floor and by the Darwin exhibit on the sixth floor to answer the True or False questions below. Circle your answer.

   - Humans are descended from chimpanzees. T / F
   - Organisms want to evolve. T / F
   - Individuals evolve. T / F

   (b) Which of the following are ways that evolution research impacts our lives? Circle all that apply.
   a. Disease prevention
   b. Food crop production
   c. Understanding genetic disorders
   d. Discovering new species

Sixth Floor

Use the information below, exhibit labels, and your own knowledge and experience for this question.

9. Animal coloration is highly variable. One function of coloration is concealment, in which the colors and/or patterns of colors blends into the background. Advertising coloration attracts attention and might identify an animal, startle predators, or serve as a warning.

   Indicate whether the coloration of the animals listed below conceals ('C'), or advertises ('A')'.
   Hint: All can be found on the sixth floor.

   Striped skunk _____ Prairie kingsnake _____

   Prairie vole _____ Milk snake _____

Find the birds displayed across from the live snakes.

10. Find the three birds listed below. Look at the birds and the beak images to determine whether their primary diet is seeds, insects or flesh. Find another bird with the same beak style and diet.

    Hints: seeds require strength and leverage to crack them; insects often burrow into tree trunks or hide underground; meat-eaters use their beaks to tear flesh.

Swainson's hawk

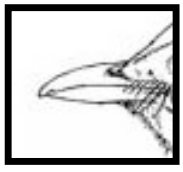
What they eat. _____

Another bird with this beak shape. _____

Black-headed grosbeak

What they eat. _____

Another bird with this beak shape. _____



Baltimore oriole

What they eat. _____

Another bird with this beak shape. _____