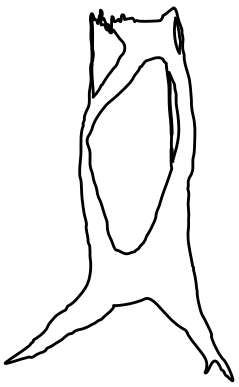
KU NATURAL HISTORY MUSEUM
The University of Kansas

Prolific Parasites
Grades 3-6, Families

Explore parasites — organisms that take resources from another organism (host) that they live on, in, or with.

Fourth Floor (Panorama)



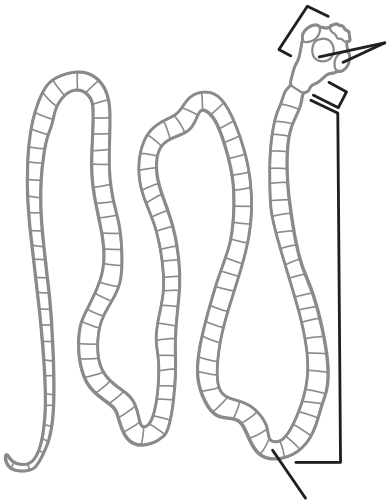
Go to the 'Tropical Rainforest' biome.

1. Find the strangler fig, a parasitic plant, on the right side of the rainforest.
    a. Shade in its host tree on the diagram to the right.
    b. Draw a circle to show where the small non-parasitic Graceful Fern is.

Sixth Floor

Find the parasite exhibit with four large colorized pictures of tapeworms.

2. a. Draw lines to match the tapeworm parts to the diagram. b. Circle the parts you can see in the pictures.



Scolex (*attachment structure*)

Neck

Suckers

Strobila (*body*)

Proglottid (*body segment*)

3. Look at the far-right picture. What color are the hooks it uses to attach to its host? (circle answer)

Purple Blue Orange Yellow

4. Observe the specimen of *Acanthobothrium rodmani* under the magnifier. Circle the number of proglottids (body segments) you see.

Fewer than 5 Between 5 and 30 More than 30

Find the 'Wetlands' bird display and look at some duck feet.

5. Swimmer's itch in humans is caused by a microscopic parasitic larva that normally burrows into bird feet to infect their blood. These larvae have long bodies with pointed tops and two tails at the bottom.

    Swim like a parasitic larva — put your hands together above your head, wiggling your body side to side.

Find the 'Voyage of Transformation' panel near the water fountain. Look for the bat on display.

6. Vampire bats feed on blood, using their clawed thumbs to crawl onto hosts.

    Move like a vampire bat — walk on all fours with your thumbs out and fingers facing backwards.

Head to the Exploring Biodiversity case. On the side across from the animal dioramas, find the triangle of eight bees arranged in three rows on the left wall (between the base of the narwhal tusk and jar of eels).

7. Cuckoo bees lay their eggs in other bees' hives, a practice called brood parasitism. Cuckoo bees don't collect food for their young, so lack some traits present in honey bees.

   Which traits do the honey bees have that the cuckoo bees don't? (circle answers)

   Fuzzy legs Wings Stingers Antennae Hairy body

Find the Bee Tree and look for the photo on the wall of bees infected with the parasitic fungus *Nosema apis.*

7. This parasitic fungus uses a tube to invade the gut cells of bees.

   Infect like a fungus — put your hands together and use them to poke your neighbor.

Fifth Floor (Explore Evolution)

Head to the Collections & Conservation exhibit featuring black-footed ferrets and prairie dogs.

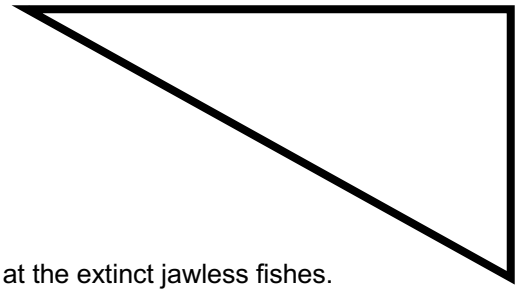
8. Explore the 'Collections-based research' drawer to see three parasites collected from mammals.

   a. Tapeworms are endoparasites — they live inside their host's gut. To see how long a human tapeworm is, walk along the length of the prairie dog tunnel . . . four times!

   b. Pull up the panels above the prairie dog tunnel. Which two parasites are also found in the drawer? (circle answers)

   Flea Tick Tapeworm

Look down from the balcony at the floor created by KU zoology student and artist Myra Wildish Rising in 1937. Find the triangular tile on the far right.



9. It depicts annelids, a group that includes earthworms and leeches. Some leeches are parasites that feed on blood. Sketch the tile in the triangle.

Third Floor (Fossil Galleries)

Find the 'Early Devonian animals' diorama (near the Paleo Garden) and look at the extinct jawless fishes.

10. The parasitic sea lamprey is a living jawless fish. It attaches to a host with a disc-shaped suction cup mouth and uses sharp teeth to hold on and feed on the animal's flesh and/or blood.

    Latch on like a lamprey — put your lips on your arm and create suction.

Go to the 'Invertebrates' display and find the tree diagram showing the interrelationships between groups.

11. Many parasitic species are in Platyhelminthes (tapeworms), Nematoda (roundworms), and Nematomorpha (horsehair worms).

    While not closely related, they look superficially similar. Using the illustrations for these groups and your sketch of the annelid tile, list two words to describe their appearance or traits.

    _____

12. Some members of Arthropoda (trilobites, insects, spiders, etc.) are parasitic, such as ticks and chiggers. Trace the branches on the tree diagram to determine if the statement below is true or false. (circle answer)

    True or False — Arthropoda have segmented bodies and limbs.