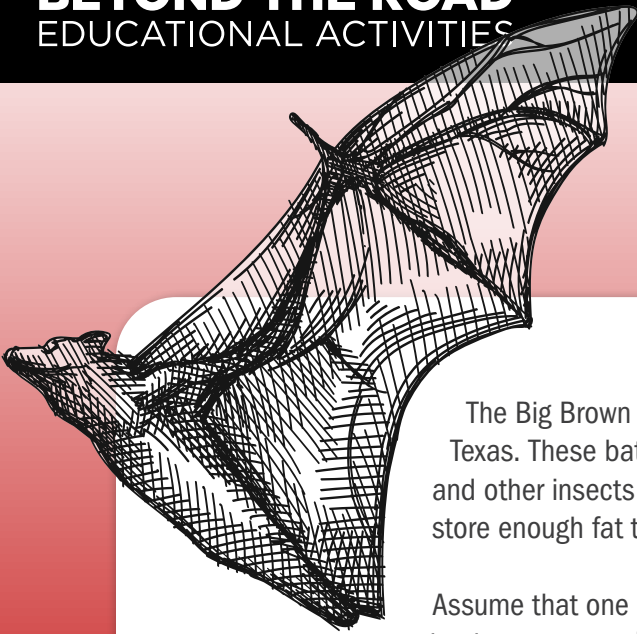


bats



The Big Brown Bat is a medium-size bat that roosts in eastern and western Texas. These bats are insectivores, meaning they eat beetles, moths, flies, and other insects at night. Big brown bats must eat a lot during the summer to store enough fat to help them survive through the hibernation months.

Assume that one big brown bat must eat 1,000 ounces of insects every night to store up enough fat by winter. If a beetle weighs 1.75 ounces, a moth weighs 2.5 ounces, and one fly is 0.25 ounces, answer the following questions:

1. How many beetles would the bat need to eat to reach 1,000 ounces in one night?
2. How many flies would the bat need to eat to reach 1,000 ounces in one night?
3. How many moths would the bat need to eat to reach 1,000 ounces in one night?
4. Five bats go out hunting one evening. None of the big brown bats are able to find flies, so instead they eat beetles and moths all night. Collectively, how many combined beetles and moths would they need to eat?

Critical Thinking:

1. Assume that a farmer sprayed pesticides in an area and it killed most of the trees, flowers, and other plants. As a result, a majority of the beetles, moths, and flies in that area also died as they could not find enough food sources. What would happen to the bats? What alternative might they have?