

For More Information about  
Mammoths, Insects, or  
Paleontology, Visit these sites:



**Waco Mammoth  
National Monument**

[www.nps.gov/waco](http://www.nps.gov/waco)



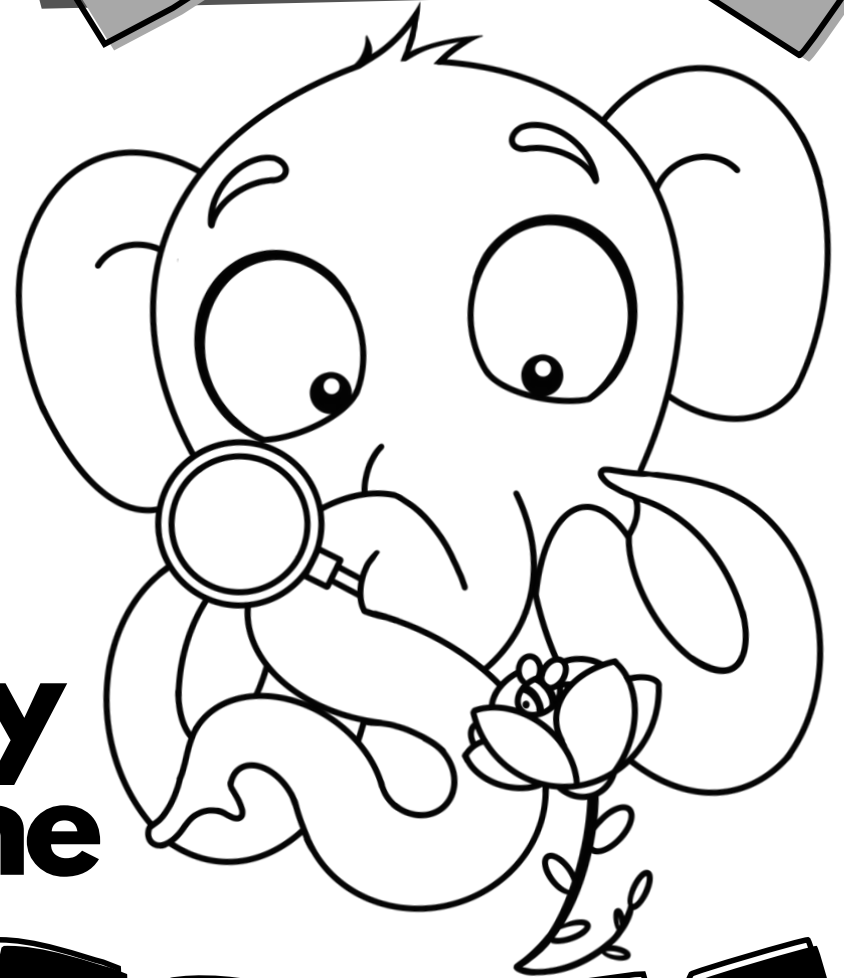
**Florissant Fossil Beds  
National Monument**

[www.nps.gov/flfo](http://www.nps.gov/flfo)

Activity and illustrations created  
by Diana Encarnacion

Special Thanks to Dr. Lindsey  
Yann and George C. McGavin's  
Essential Entomology

**BUGS**



**by  
the**

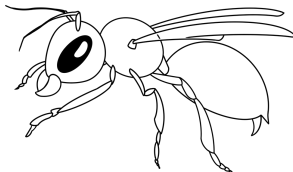
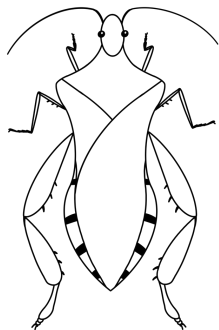
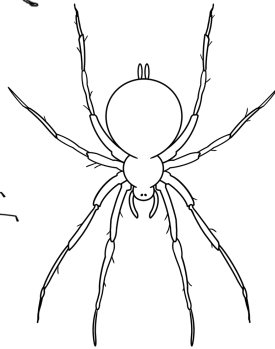
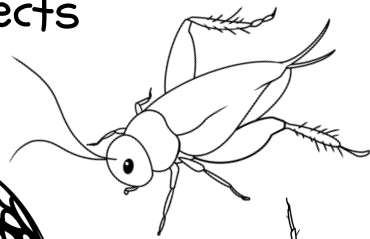
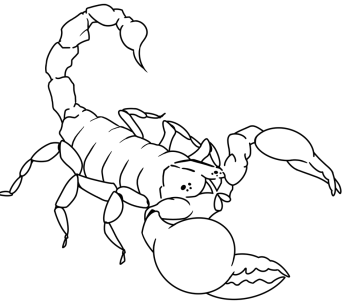
**BONES**

Activity Book about the Bugs at Waco Mammoth

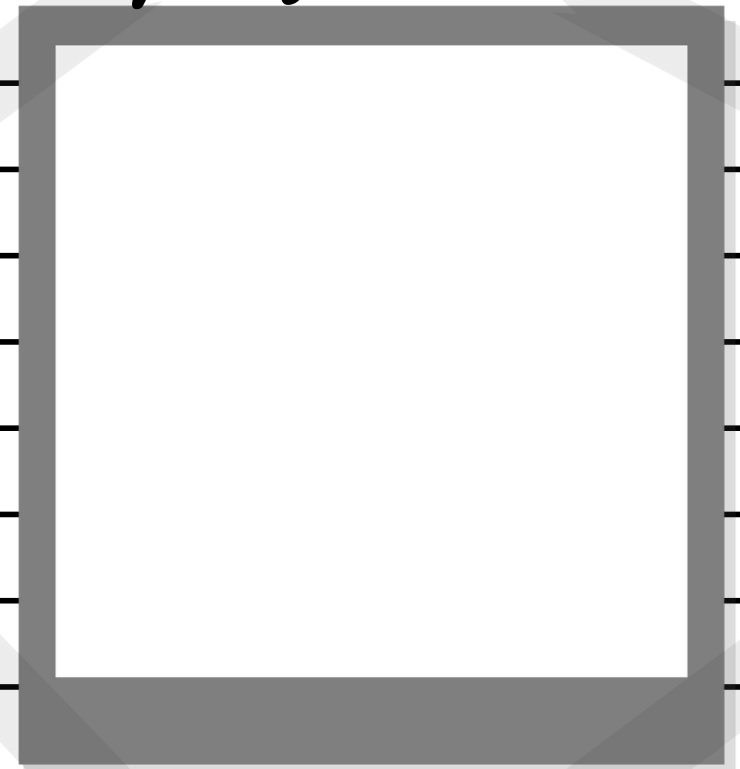
# WHAT'S A BUG?

Bugs, or insects, are part of a group called Arthropods. Arthropods are animals without backbones that have more than 4 legs, a hard shell or exoskeleton, and split body parts. Insects are different than other Arthropods because they have 6 legs, wings, and 2 antennae.

Out of all the arthropods below, circle the insects



My bug looks like



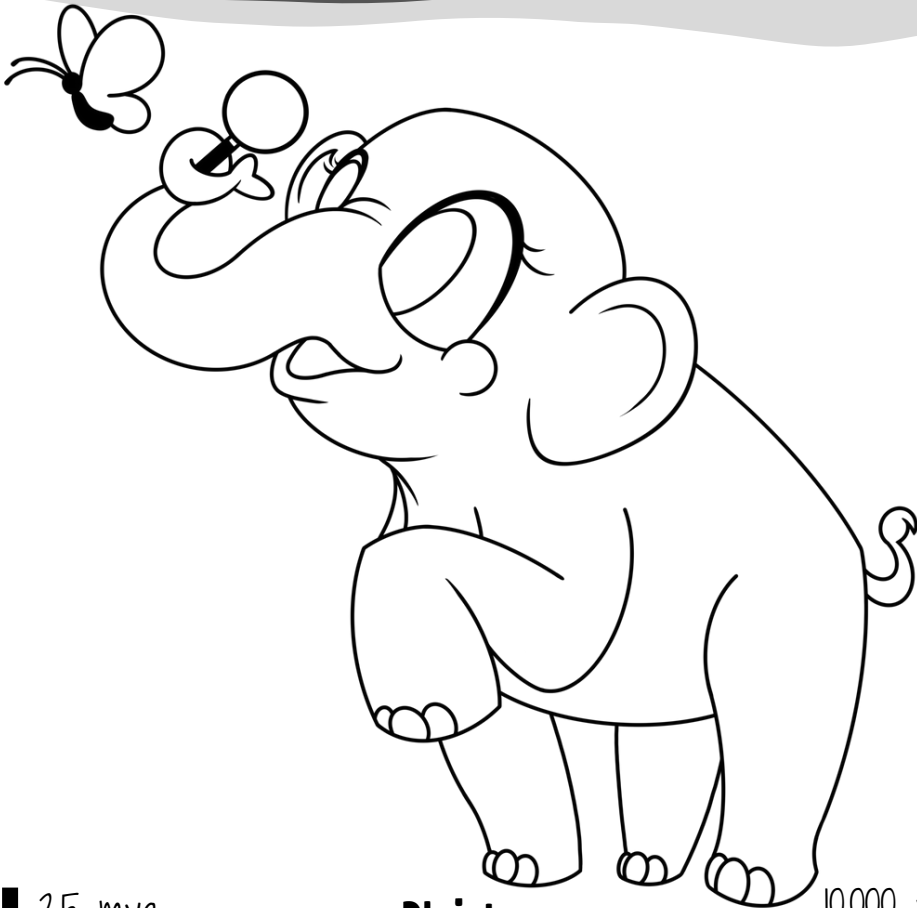
I found it on...

I think it eats...

I think it's named...

# BUGS OF TODAY

We can find bugs everywhere we go and there are lots to find here at the park. Take this booklet with you and write down what you find! When looking for bugs, remember not to pick plants or flowers so we don't hurt their homes.



2.5 mya

**Pleistocene**

10,000 years

# BUGS OF THE PAST

Bugs are much older than mammoths. Some are even older than dinosaurs. At the park, scientists have found signs of beetles, but they're not sure if they were beetles of the past or of the present. Either way, the bugs we see around us today would have been the same bugs the mammoths saw long ago.

Note: This timeline is not to scale

**Carboniferous**



**Permian**



**Triassic**



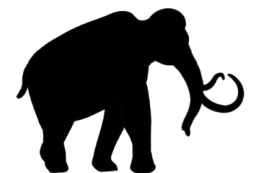
**Jurassic**



**Paleocene**



**Pleistocene**



Learn more about fossils at Florissant Fossil Beds National Monument

# ORTHOPTERA



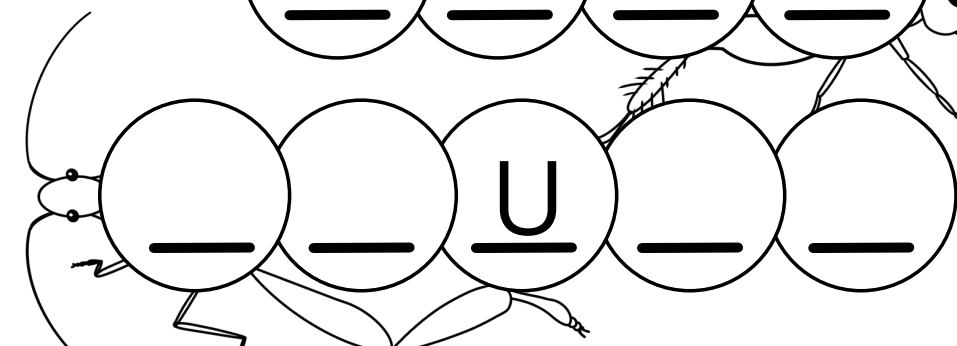
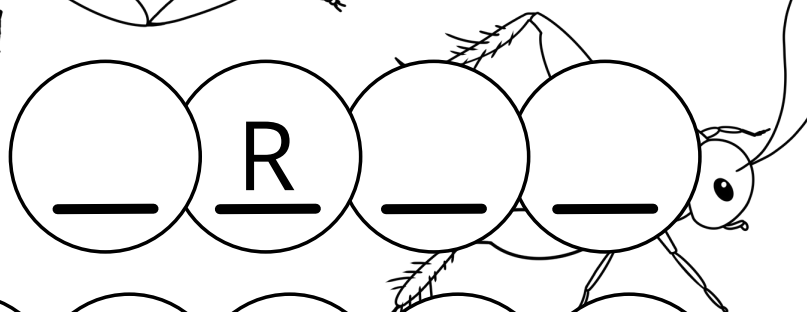
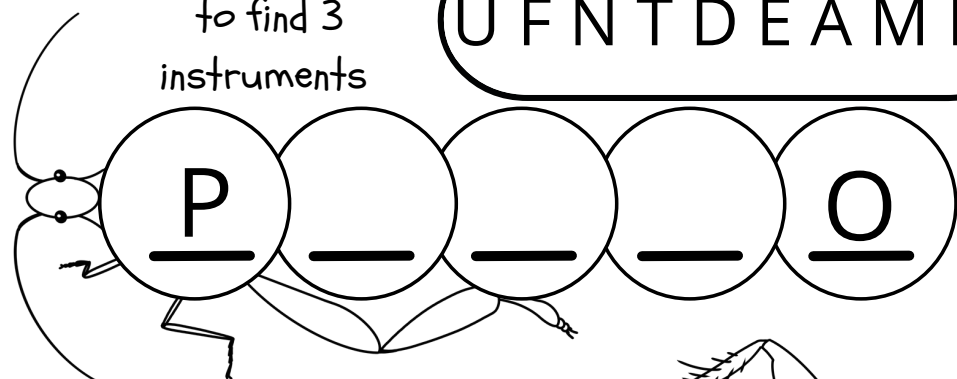
# HEMIPTERA



Orthoptera are jumping bugs with long legs, like grasshoppers and crickets. Hemiptera are bugs with straw like mouths, like aphids, true bugs, and cicadas. These bugs are responsible for the sounds of summer, cicadas in the day and crickets at night.

Use these letters  
to find 3  
instruments

U F N T D E A M L I



350 mya

Carboniferous

290 mya

Permian

66 mya

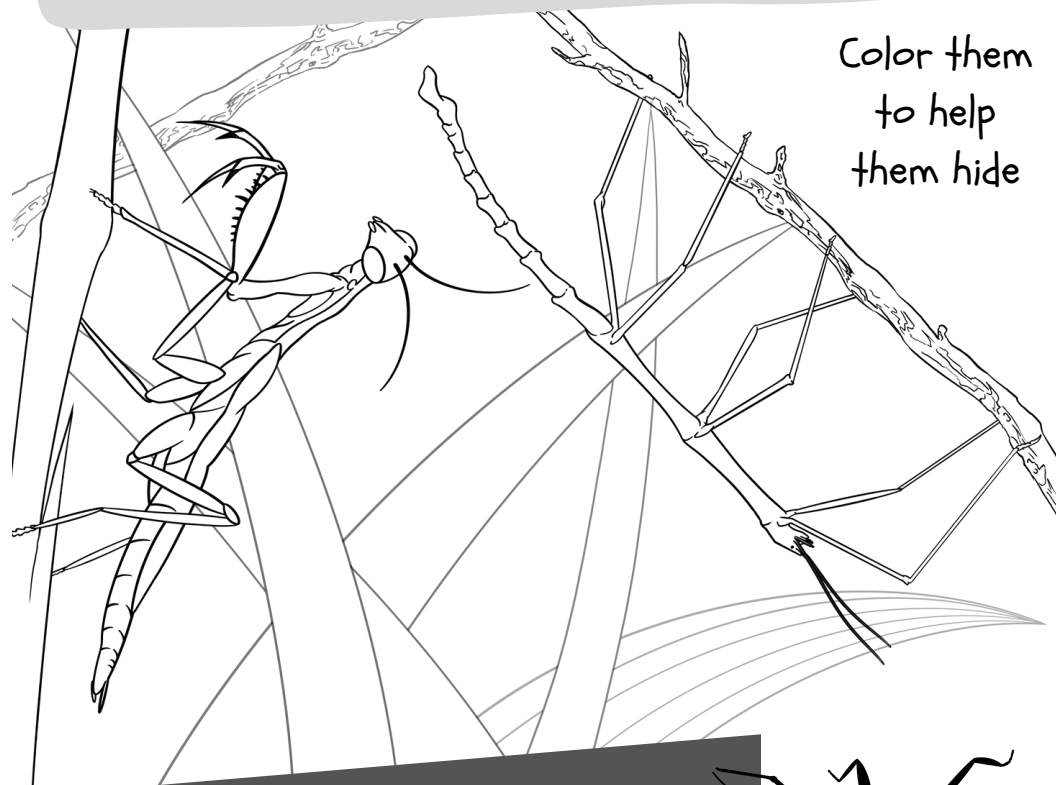
Paleocene

56 mya



# MANTODEA

Mantis belong to Mantodea. All mantis are carnivores, meaning they eat other bugs. Their praying hands and camouflaged bodies help them catch their food.



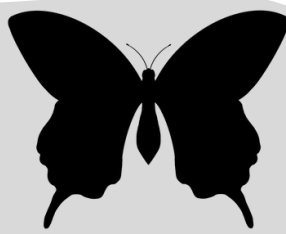
Color them  
to help  
them hide

# PHASMATODEA



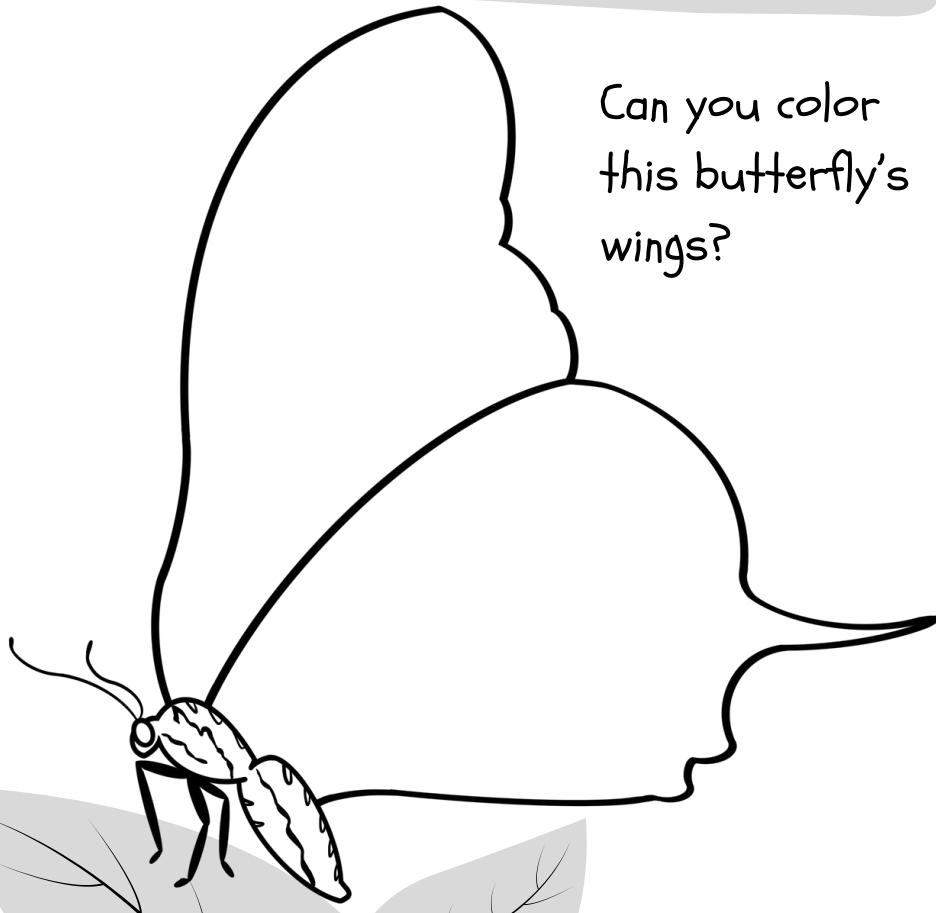
This group is made up of walking sticks and leaf bugs. They are all herbivores, meaning they eat plants. They look like leaves and sticks to help them hide from hungry animals.

# LEPIDOPTERA



Butterflies and moths belong to this group. They have large, beautiful wings made of tiny scales that form bright colors and patterns. These patterns can help them blend in, tell other animals they're poisonous, or even look like scary eyes!

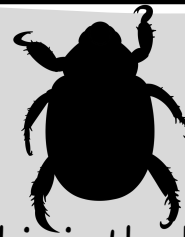
Can you color this butterfly's wings?



205 mya

Jurassic

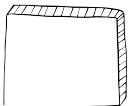
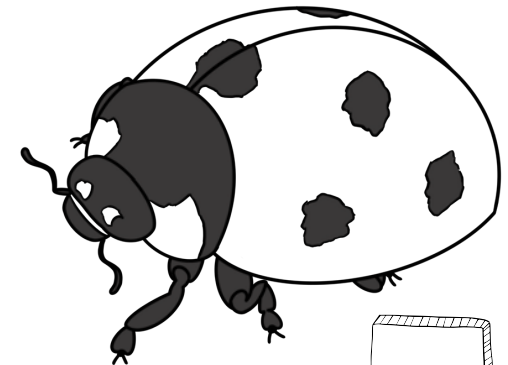
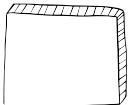
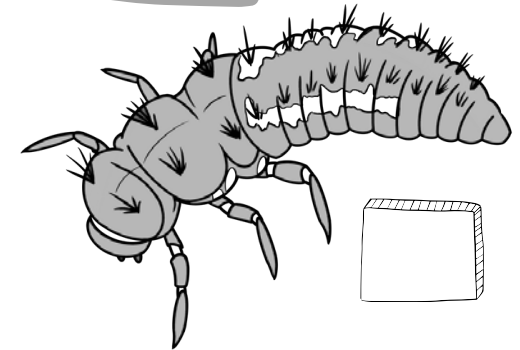
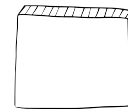
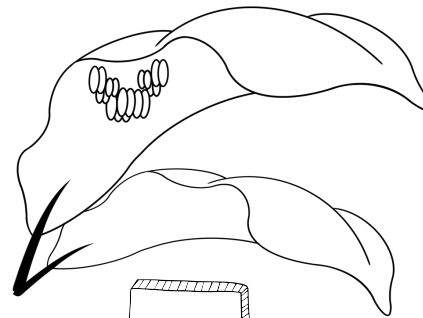
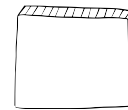
146 mya



# COLEOPTERA

This is the biggest group of bugs, made up of beetles and weevils. They hide their wings behind a hard shell to protect them. Like most bugs, they go through a major change, a metamorphosis, when they turn into adults.

Number the life cycle of the Ladybug



Permian

251 mya

# DIPTERA



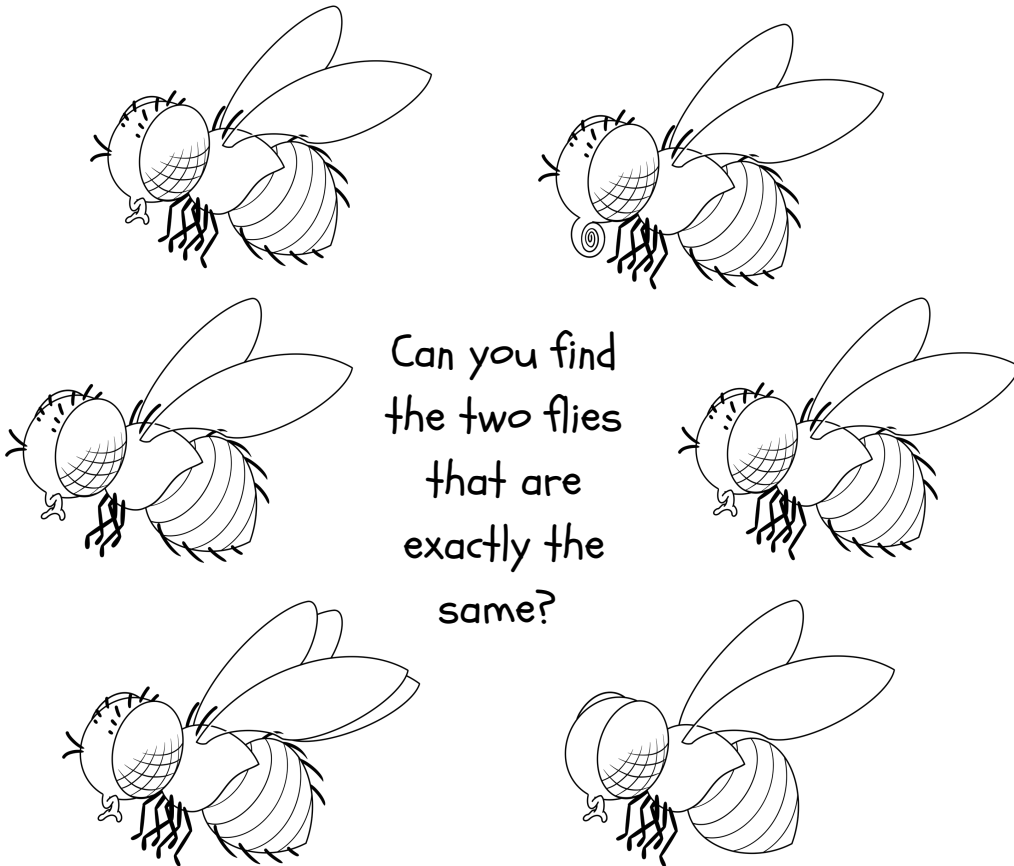
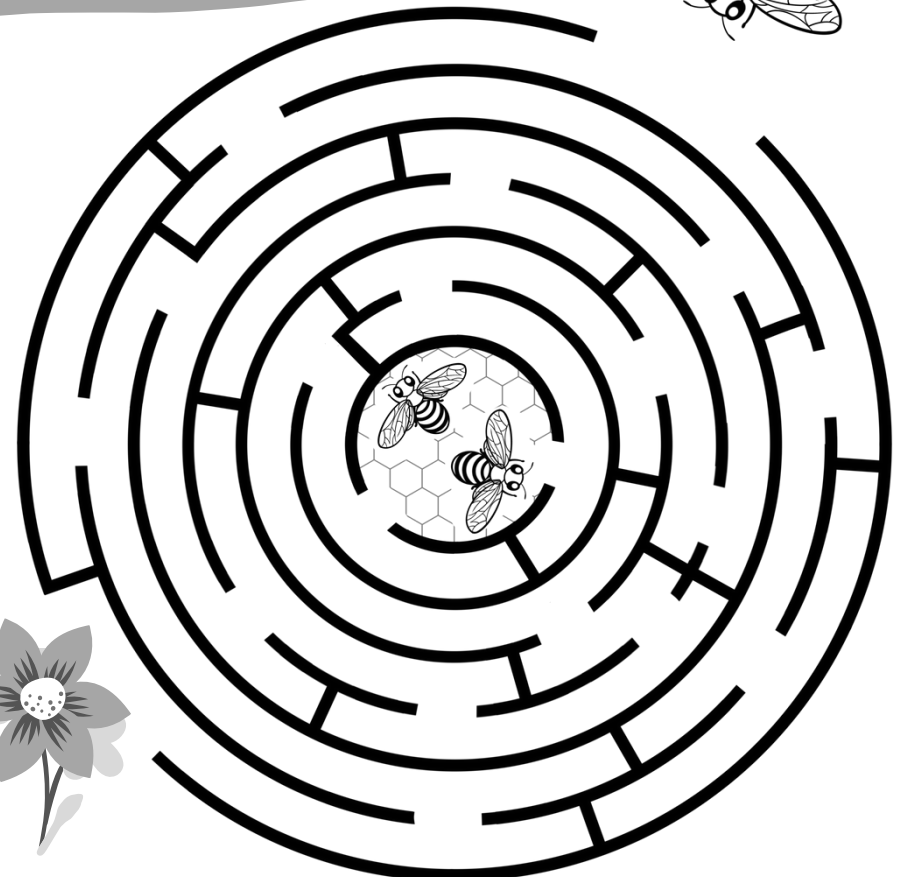
The “di” in Diptera means “two” because it looks like these bugs only have two wings. Flies, gnats, and mosquitos may be pests, but they are also important pollinators and help recycle dead things.



# HYMENOPTERA

These are bugs with skinny waists and stingers, like wasps, bees, and ants. Just because they sting doesn't mean they're mean! Bees help flowers and plants grow, and wasps are important hunters that keep bad bugs at bay.

Can you help this bee lead her friends to the tasty flower?



Can you find the two flies that are exactly the same?

251 mya

Triassic

205 mya

Jurassic

146 mya