

SHOO FLY!





Houseflies, those pesky flying insects that show up uninvited at your summer picnic or slip into your house if you leave a door open too long, are so annoying. Sometimes it seems that they are everywhere!


Did you know that there are more than 100,000 different kinds of flies? The housefly is frequently found around humans and on farms and ranches that raise animals. Flies are pests. Not only are they annoying, they also spread diseases to humans. Flies eat rotten things like dead animals, feces (poop), and garbage. As they crawl around on that stuff they pick up germs and spread them wherever they land.


Flies are **decomposers**, living things (such as bacteria, fungus, or insect) that feed on and break down plant and animal matter into simpler parts. Decomposers act as a clean up crew and perform an important job, making sure all of that plant and animal matter doesn't pile up.

Fly Facts


 Instead of having a skeleton inside their bodies, flies are hard on the outside and soft on the inside. Their type of skeleton is called an **exoskeleton**.


 Flies eat only liquid food. If they land on solid food, they spit on it through their **proboscis** (part of their mouth). This softens the food so they can eat it. A fly's tongue is shaped like a straw to sip their food. Since they eat only liquids, flies poop a lot. It is thought that they poop every time they land, so they leave poop everywhere!


 Flies are very hard to swat because of their excellent eyesight, fast reaction time, and **agility** (the ability to move quickly and easily).

 Flies have big compound eyes with a 360° field of vision – they can even see behind them!



 Flies taste with their feet.

 A fly has two wings and a pair of **halteres** (flight sensors), which help them maintain their balance when darting about to avoid predators. A fly knows how to fly as soon as it is born.


 Flies have four life stages:


egg: A female fly lays hundreds of eggs over several days, most often in garbage or poop.

larva: After about 15 hours, the eggs hatch. These larvae are called maggots. They eat whatever is around them.

pupa: The maggots head to a drier place where a dark brown case will form over them. Inside this case, the maggot turns into a fly.

adult fly: In 3 – 6 days, the pupa opens and out comes the fly! Flies live for 2 -3 weeks.

 The scientific study of flies and other insects is called **entomology**.

 Flies sound pretty awful, but they are also an important part of the ecosystem:

- ☺ Flies help pollinate flowers
- ☺ They are scavengers and help get rid of rotting organic matter, completing the food chain by releasing nutrients for other life forms to use.
- ☺ Flies and their larvae are a food source containing a lot of protein for other predators. They are eaten by birds, mammals, lizards, amphibians, and fish.
- ☺ Maggots are often used as bait by fishermen.
- ☺ Maggots feed on aphids which helps gardeners and farmers.

Shoo, fly! Stay away! (how to keep flies out of your home)

- ✓ Keep your house clean.
- ✓ Keep your trash covered.
- ✓ Don't leave food lying around uncovered.
- ✓ Pick up your pet waste quickly and dispose of it.
- ✓ Keep screens on doors and windows.

ACTIVITY: How to catch those pesky flies (NOTE: an adult helper will be needed to cut the plastic bottle!)

Materials

- Plastic bottle
- Scissors to cut the bottle
- Sweet liquid (juice, corn syrup, honey or sugar water)



- Old meat or fruit can also be added (see note below)
- Duct tape



1. Have an adult cut off the top part of the bottle
2. Add a couple of inches of a sweet liquid to the bottom of the bottle.
3. Turn the top of the bottle upside down and place it in the bottom of the bottle.
4. Tape the two pieces together.
5. In the example below, a second bottle top with a narrower opening was placed inside the first one to make it harder for the flies to escape.
6. Place your trap outside and let it sit in a place that you usually see flies.
7. Check it every day to see if you are catching flies.
8. When you are done, empty the bottle, and use it again, or recycle it.
9. If you do this again, try a different kind of bait and see which one works the best.
10. If you decide to add some solid bait (like old meat, egg, or rotten fruit) to the mix, be sure to dispose of it quickly. The flies will likely lay eggs in it and you will see maggots. If they form pupa and hatch, you will have even more flies!



How did this work?

Flies have a very good sense of smell and were attracted to the bait. It was easy for them to get into the bottle, but not so easy to get out of.



ADDITIONAL RESOURCES:

Books available from the Washoe County Library System:

[*Buzz! A Book About Insects*](#) by Melvin Berger

[*Flies*](#) by Larry Dane Brimner

[*Flies and Maggots are Gross!*](#) by Leigh Rockwood

[*Flies Eat Poop!*](#) by Miriam Coleman

[*I, Fly: the Buzz About Flies and How Awesome They Are*](#) by Bridget Heos and Jennifer Plecas

[*Maggots, Grubs, and More: the Secret Lives of Young Insects*](#) by Melissa Stewart

[*Rotten! Vultures, Beetles, Slime, and Nature's Other Decomposers*](#) by Anita Sanchez and Gilbert Ford

Videos:

Animalist, "How We Benefit From Flies" <https://www.youtube.com/watch?v=LxjbbNMyTMA>

Crash Course Kids, "The Dirt on Decomposers: Crash Course Kids #7.4"

https://www.youtube.com/watch?v=uB61rfeeAsM&ab_channel=CrashCourseKids

MooMooMath and Science, "Types of Decomposers" <https://www.youtube.com/watch?v=zGkSDcgzOI4>

Science Channel, "Why is it So Hard to Swat a Fly?"

https://www.youtube.com/watch?v=FsEzKH4TI9g&ab_channel=ScienceChannel

Websites:

National Pest Management Association, Pest World for Kids, Flies <https://www.pestworldforkids.org/pest-guide/flies/>

University of Michigan, BioKIDS, Kids' Inquiry of Diverse Species, Critter Catalog, True Flies, Including Mosquitos <http://www.biokids.umich.edu/critters/Diptera/>

