



## Bug Hunt!

### Key terms:

**Substrate**- the surface or material on or from which an organism lives, grows, or obtains its nourishment.

**Biotic**- relating to or resulting from living things, especially in their ecological relations

**Abiotic**- Does not come from living things

**Trophic level**- level in a food pyramid with other organisms who have similar needs

### Introduction

Much of the wildlife that we come into contact to and see every day are bugs! Insects are in environment in the world and are super valuable to food chains. Even though some people might see bugs as creepy and crawly, they are very important to everyone, whether we like them or not. Food chains rely heavily on insects because of their **trophic level** on a food chain.

### Building a bug net

Materials: 1 Wire Coat hanger, Duct tape, 1 Plastic Grocery bag

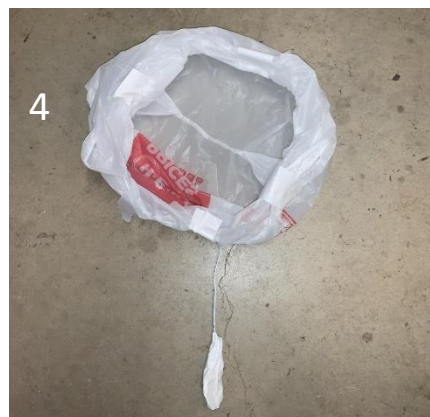
Step 1: Undo twist by the hook of the coat hanger and bend straight

Step 2: Bend a circle (about 10 inches wide) and twist hanger to hold circle (may need a guardian to help)

Step 3: insert plastic bag through hanger loop

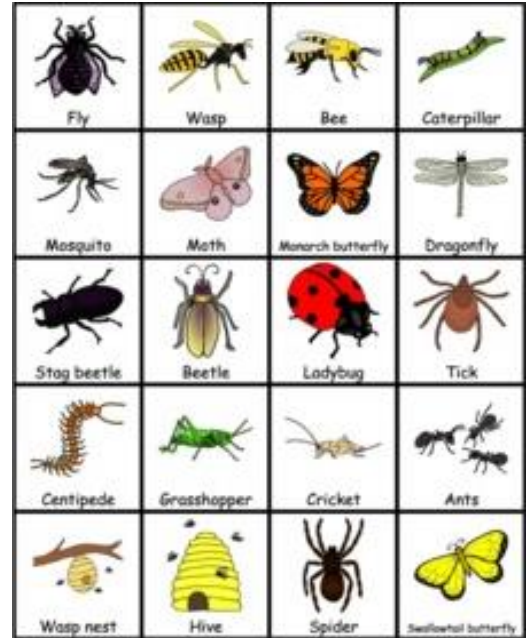
Step 4: Tape bag to hanger loop and tape handle at the base of the net

Done! Now you're ready to catch some bugs!



Hunting for bugs

In this part of the activity you're going to go hunt for bugs on different **substrates**. When trying to catch bugs you usually want to search in tall grass, but this experiment is designed to see where bugs prefer to hang out. Go look for bugs that are on cement, grass, tree/wood, and in the air and try to catch as many as you can. Be careful to stay away from bugs that can sting and bite! As you collect your bugs note where you got them from, which substrate it was in, and what type of bug it was. Try to observe if bugs prefer **abiotic** or **biotic** environments.



Data sheet- As you find insects describe and write down where you caught them in the table below. For extra fun try drawing their picture!

Cement	Grass	Tree/wood	In the air
Total:	Total:	Total:	Total:

Questions

Where did you find the most insects?

Why do you think bugs preferred one substrate over another?

Could you find bugs for each category? If not, why do you think you didn't find any on this substrate?

List which substrates were biotic, and which were abiotic.

Draw a picture of your favorite insect!

Advanced questions

Did you see any insects that are secondary consumers (Carnivores)?

How did some insects interact with abiotic factors?

How might weather affect how many insects you see?