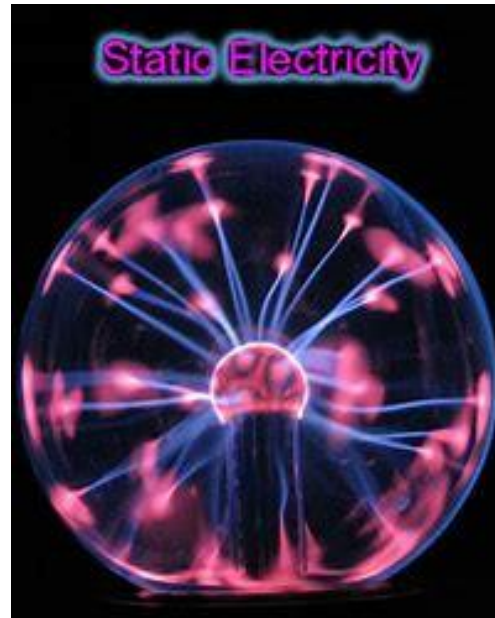


Science

Static Electricity

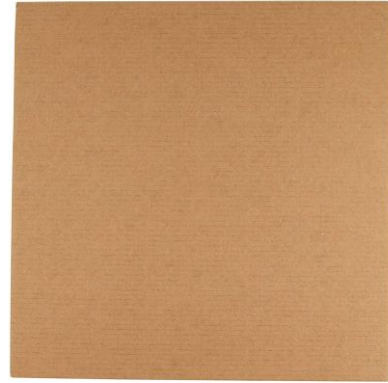
Today we will be learning about a different type of electricity called static electricity and how it works. Here are some pictures of what we will be learning about or doing today....



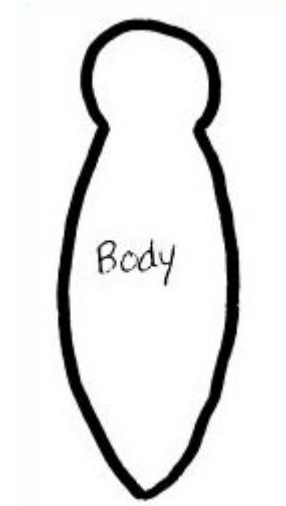
The materials needed for this lesson are...



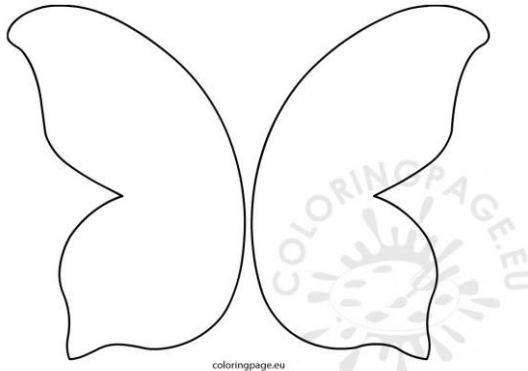
Plasma Ball



1 piece of cardboard per student



Butterfly body (1 per student)
*Template found at end of PPT



coloringpage.eu

Butterfly wings made out of tissue paper, 1 per student

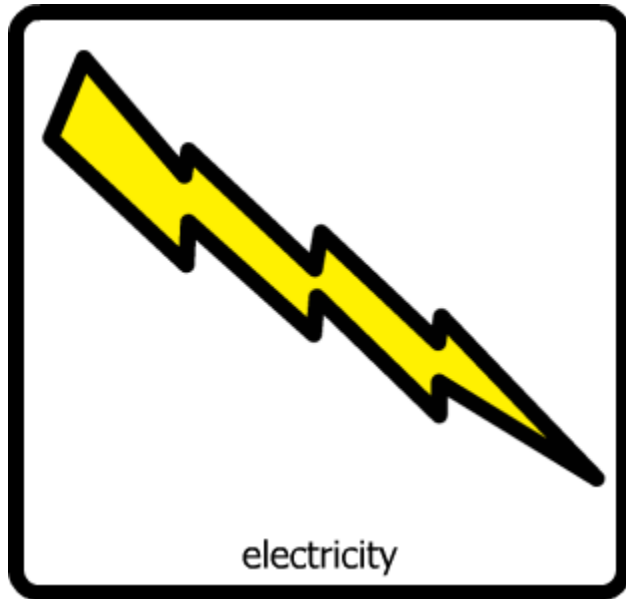


tissue paper

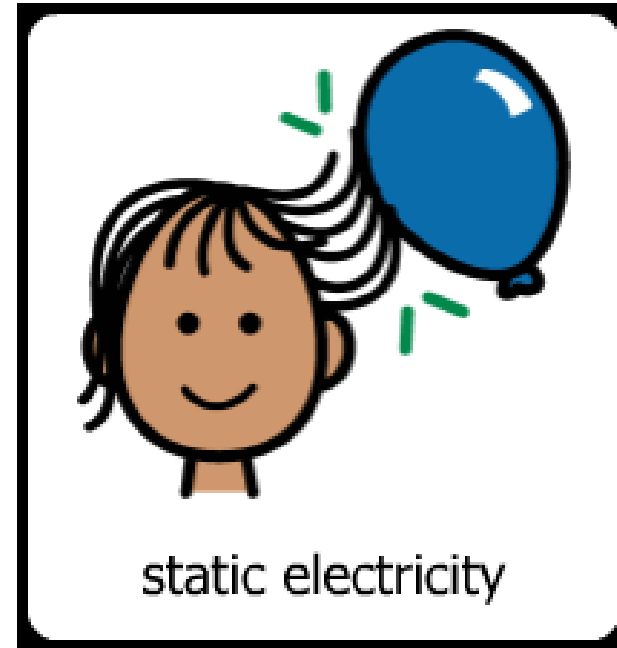


Balloons

The vocabulary for today's lesson is....



the flow of tiny particles called electrons and protons. It can also mean the [energy](#) you get when electrons flow from place to place. *Electricity can be seen in nature in a bolt of lightning.



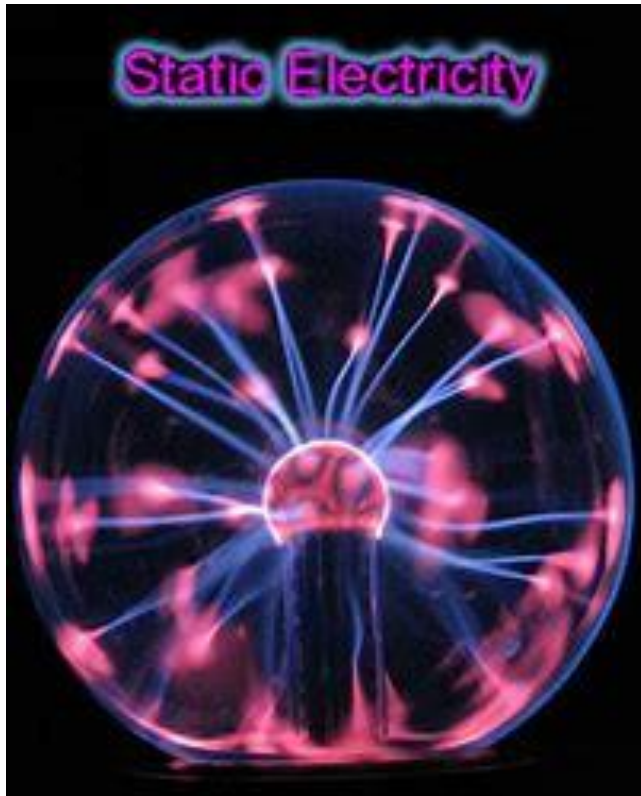
the build-up of an **electrical** charge on the surface of an object. The reason that it's actually called **static electricity** is because the charges stay in one area for some time and don't flow or move to a different area.

Step 1: Let's watch a video about static electricity to understand a little bit more:



<https://www.youtube.com/watch?v=5TAIUCYMIIQ>

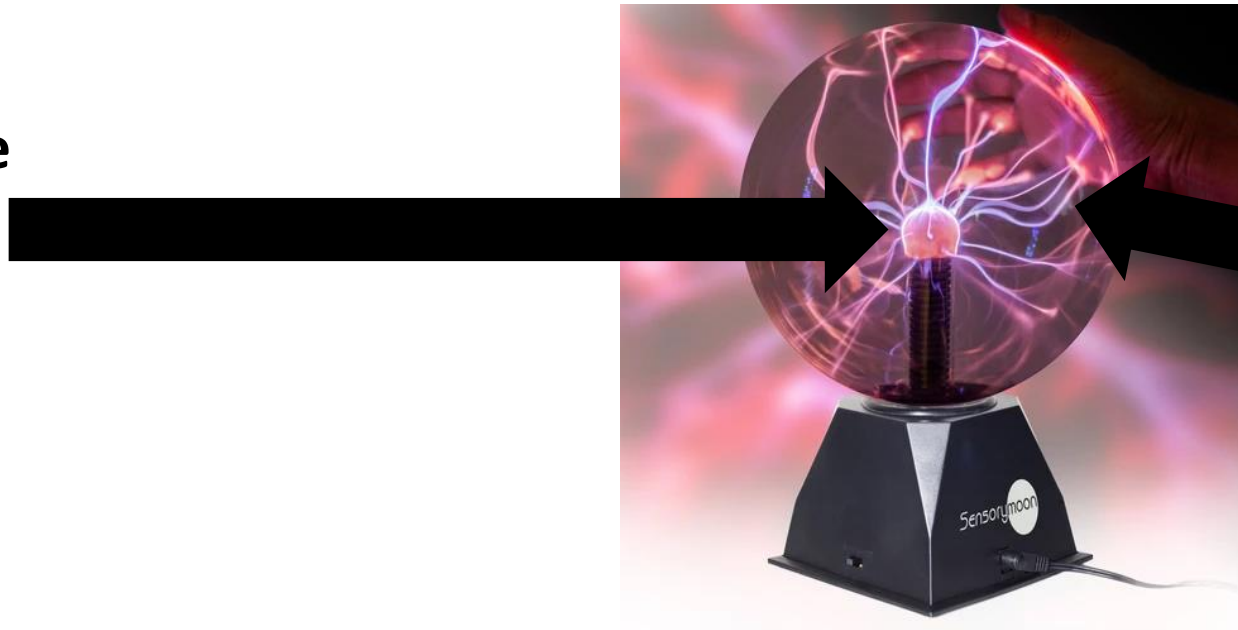
Step 2: Let's use the plasma ball



What exactly is a plasma ball?

- A plasma ball is a clear glass ball filled with a mixture of gases with a high-voltage electrode at its center. Plasma filaments extend from the electrode to the glass when electricity is supplied, creating fascinating beams of colored light.

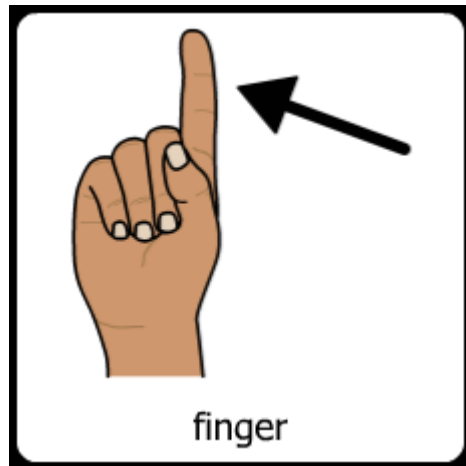
Electrode



**Plasma
filaments**

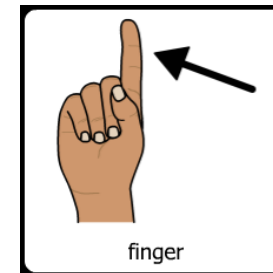
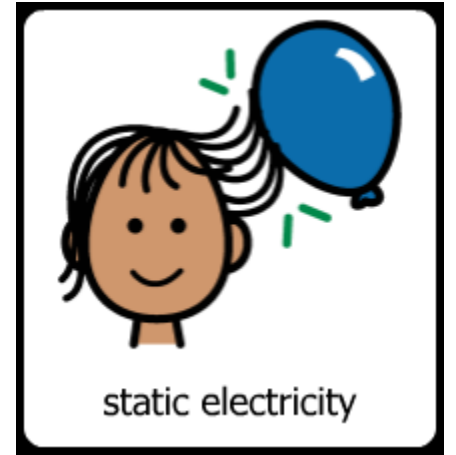
Why does the filament move when I touch it?

- When we put our finger on the ball, it creates a place for the energy to flow...let's take turns practicing!

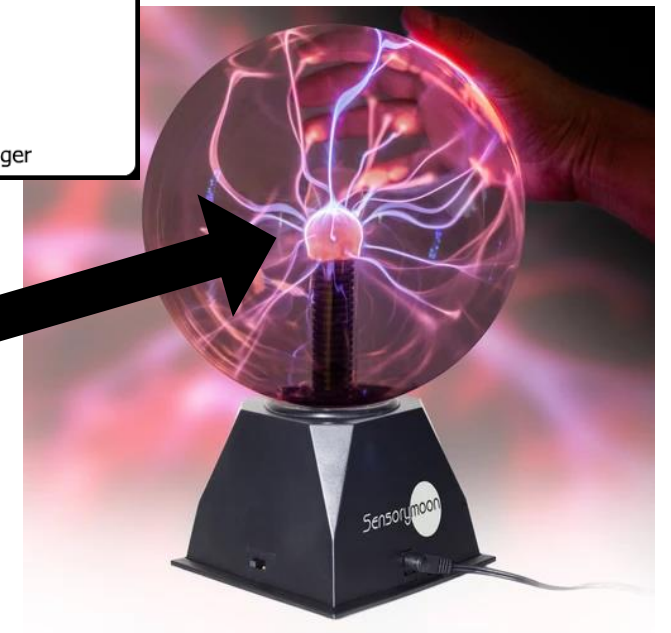
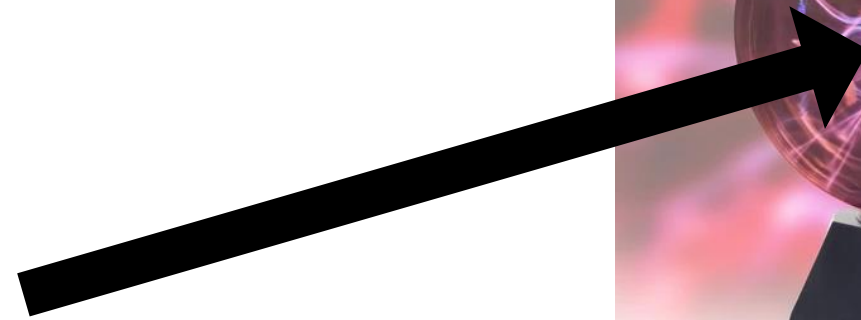


But how is this static electricity?

The electrode in the base of the unit creates a huge **negative** charge on a metal ball that's inside a glass dome. The charge almost instantly builds up to the point where electrons are flowing from the ball to the inside of the glass. If you touch the glass, the charge will be attracted to the point where your hand touches the glass.



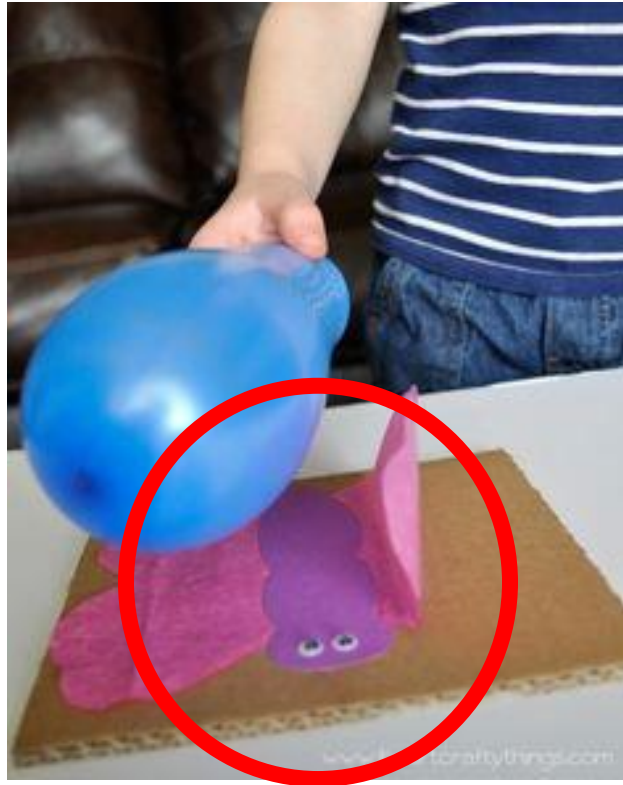
Electrode



Step 2: Creating our own static electricity butterfly



Put your name on the cardboard and glue a body in the middle. Add googly eyes



Choose what color wings you would like and only glue the wings close to the body!

- The wings need to be able to flap



Blow up a balloon and have your teachers help you tie it

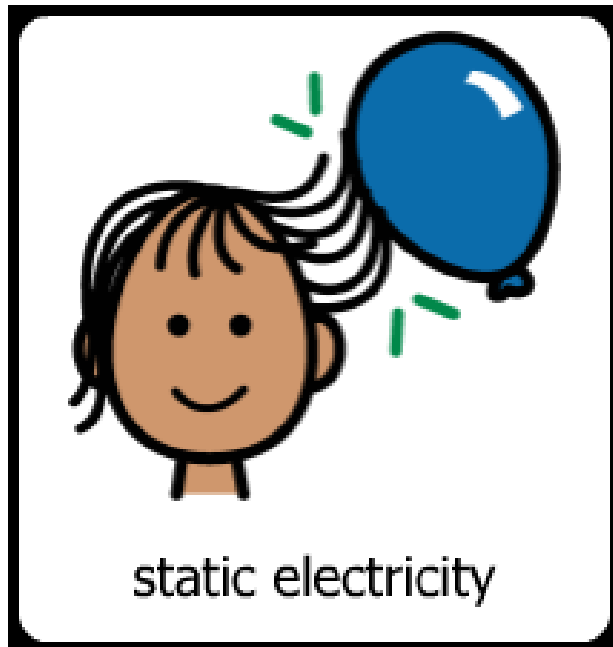


Rub the balloon on your hair or shirt for at least 20 seconds, then quickly hover the balloon over the butterfly wings

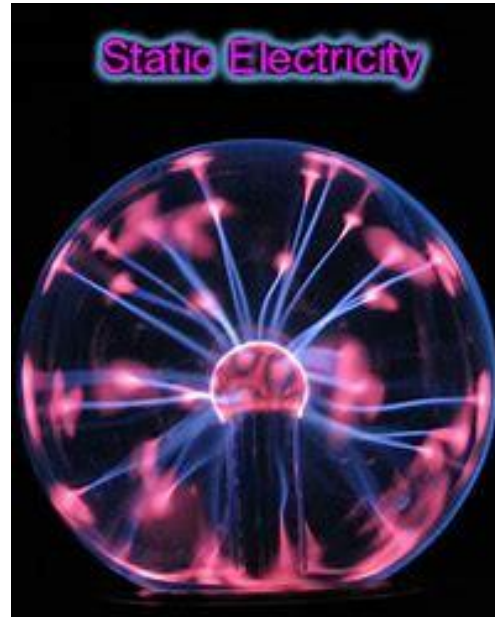


What happened?

- The static electricity in the balloon caused by rubbing it on your hair or shirt made the butterfly wings “fly”. Science is cool!

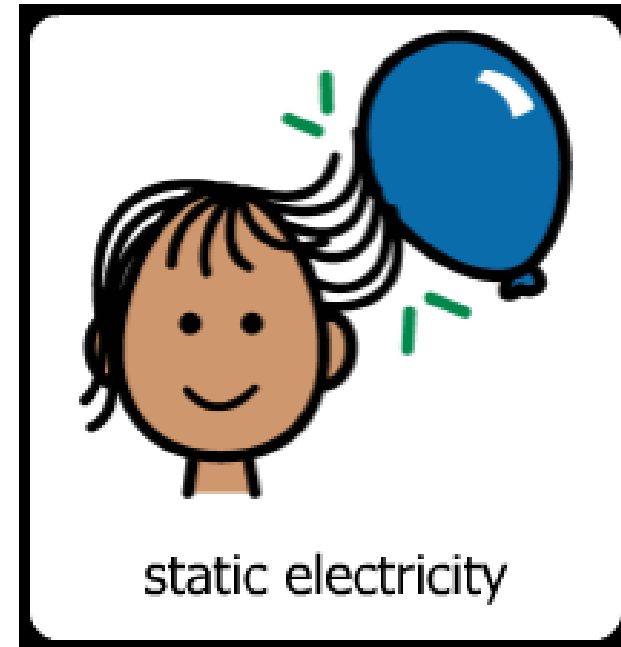
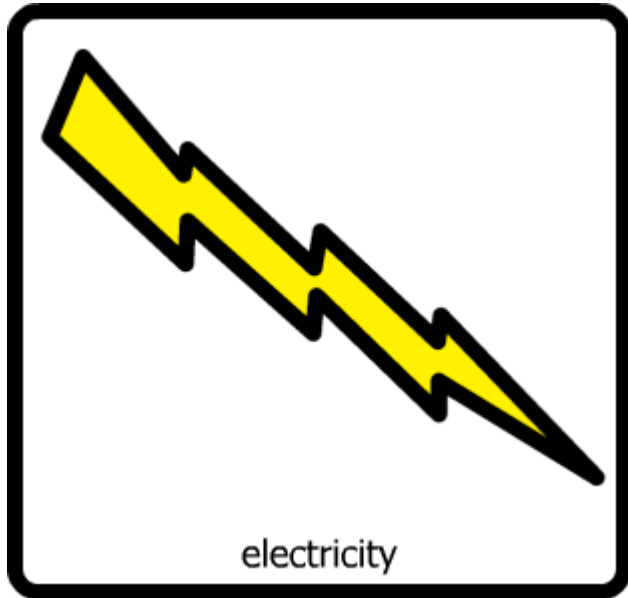


Today we learned about a different type of electricity called static electricity and how it works.



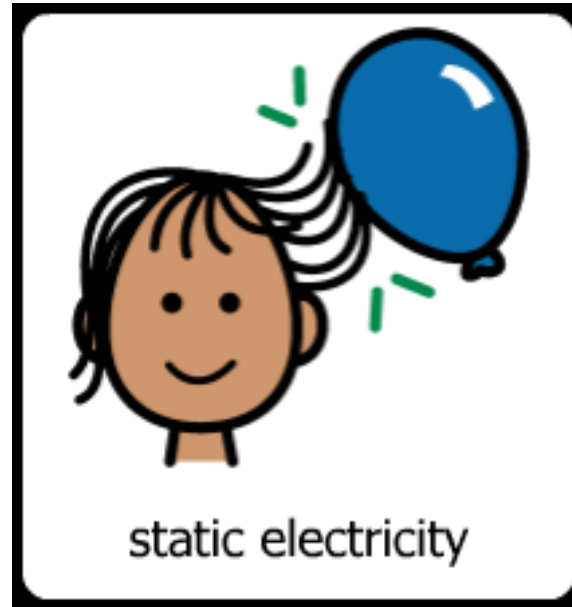
Quiz Questions about today's lesson:

1. Which vocabulary word is the build up of electrical charges on an object?



Quiz Questions about today's lesson:

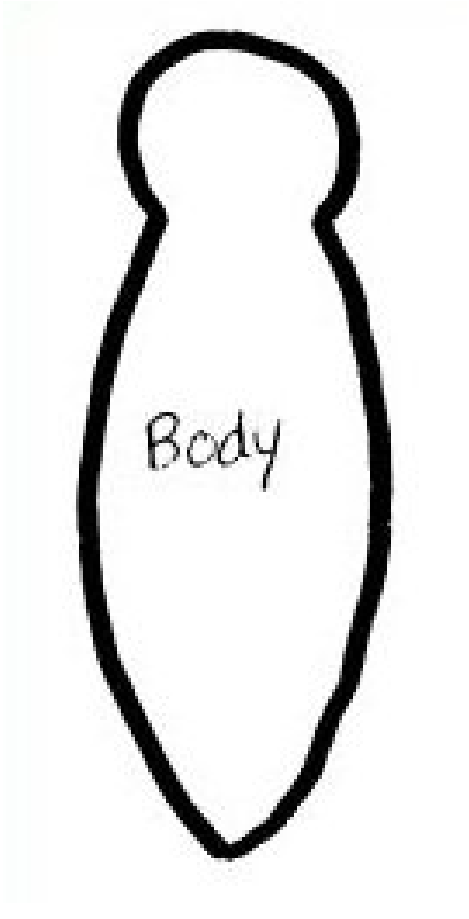
2. What did we use to make the butterfly wings "fly"?



We are ALL DONE!

- Teacher says “_____ is All Done! Time for _____!”
- Teacher says “Everyone check schedule!”
- Teacher changes the classroom schedule.
- Paras will assist individual students with checking schedules.





Template for butterfly body

Template for butterfly wings

