

Light Catchers

This activity was created by Alora

When visible light hits an object, it can be absorbed, reflected or pass through that object, or a combination of these things can happen.

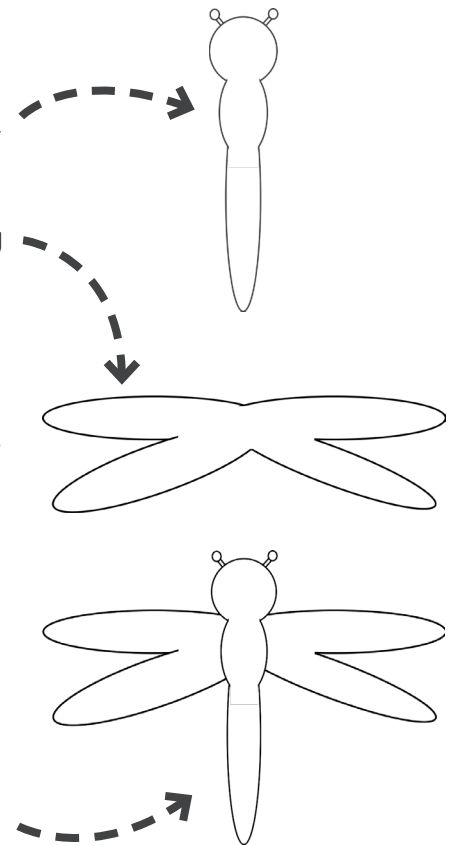
We can “catch” light using a mixture of translucent and opaque materials. Let’s learn to make some lightcatchers! Here are two different ways of doing this so you can decide at home which one you like best.

Version 1 - Tissue Paper Dragonfly

MATERIALS

- Tissue paper (the more colours the better!)
- Wax paper
- Construction paper / white paper
- Glue stick
- Pencil crayons / markers / crayons
- Scissors

- 1 Cut the body of your dragonfly out of white paper or construction paper. Optional: decorate the body with markers, pencil crayons, or crayons!
- 2 Cut the wings of the dragonfly out of wax paper (in whatever wing shape you like).
- 3 Cut your tissue paper into squares, play around with size or shape as you wish!
- 4 Put glue on a small section of the wax paper and stick some pieces of tissue paper where there’s glue. Feel free to overlap some of the pieces of tissue paper for some cool colour effects! But remember the thicker the tissue paper, the less light will come through.
- 5 Repeat step 4 all over the wings until one side is completely covered!
- 6 Place the opaque body over the wings and glue it down.
- 7 Allow the glue to dry before taping it onto a window. Admire your multicoloured masterpiece!



DEFINITIONS

TRANSPARENT: all visible light passes through. We can see through materials that are transparent, and see objects through them very clearly. Eg: water or glass.

TRANSLUCENT: some light passes through. You can see shadows of objects behind translucent objects, but not clear images. Eg: wax and tissue paper, or frosted glass.

OPAQUE: no light passes through. They either reflect or absorb light, which can turn into heat. Eg: metal (can be quite reflective), stones, and wood.

Version 2 - Crayon Wax Butterfly

MATERIALS

- Wax paper
- Scissors
- White paper / construction paper
- Crayons (to melt)
- Pencil / crayon sharpener
- Clothing iron
- Old towels / rags x 2
- Glue stick
- Ironing board
- A heavy book

- 1 Cut out the body of your butterfly from white paper or construction paper. Decorate as desired.
- 2 Take two sheets of wax paper larger than the body of your butterfly (you will later cut these into your butterfly wings). Identify the waxy sides of the paper.
- 3 Shave the crayons of your choice using the pencil or crayon sharpener. We want very fine pieces that will melt easily.
- 4 Place one of the rags/towels down on the ironing board. Place one piece of wax paper down on top of that rag with its waxy side up.
- 5 Sprinkle the finely ground wax crayon on the wax paper, in whatever colour pattern you like! Make sure you only have a thin layer of the ground up crayon, too much wax will make it opaque. It's okay to have a few uncovered areas.
- 6 Place the second piece of wax paper on top of the freshly sprinkled wax. Make sure the waxy side is facing down.
- 7 Place the second towel on top. The layers you should now have in front of you (from bottom to top) should be the ironing board, a towel/rag, wax paper (waxy side up), ground crayon, wax paper (waxy side down), and another towel.
- 8 With adult supervision, once your iron is hot, very carefully iron your crayon wax sandwich. The iron should only be in contact with the top towel. It won't take long for the wax to melt. Keep the iron moving on the top towel for 1-2 minutes.
- 9 Remove the iron, unplug it, and place the heavy book on top of your wax sandwich while the wax cools.
- 10 Once the wax is cool, the two pieces of wax paper should be stuck together from the crayon wax and should be translucent when held up to the light.
- 11 Take the now multicoloured wax paper and cut out your butterfly wings in whatever wing shape you like.
- 12 Glue the butterfly wings to the body and mount on a window. Admire your multicoloured masterpiece!

