

## How do bees see?

Did you know that bumblebees have **five eyes**?

They have **two large eyes** on the front of their heads, called their 'compound eyes'. These are shown by the arrows on the photo and they help the bee to see colours and detect things moving. This is useful when a bee wants to land on a flower that is being blown in the wind.

Bumblebees also have **three smaller eyes** on top of their heads, shown in the circle on the photo. These are called 'simple eyes' and help the bee to see sunlight, even on cloudy days. This helps it to navigate to and from flowers and its nest.



## What about colours?

Bumblebees see the world in a very different way to people because they can see the ultra violet light spectrum. This means that many flowers that look like they only have a single colour to us often have extra markings near the centre of the flower. These guide the bumblebee to where the food can be found inside the flower. The photos below show the difference between what a human sees and what a bumblebee might see.



What we see



What a bumblebee sees

These extra markings help the bee to find food and also help the flower because the bee then helps to pollinate it.

Pollination happens when a bumblebee carries pollen from one flower to another flower, thus helping it to produce new seeds. This leads to new flowers, which gives the bees even more to feed on. So, bees need flowers as much as flowers need bees.

## Make a bumblebee pencil topper

### What you will need:

- Funny foam in black, yellow, red and/or white
- Scissors
- Glue
- A pencil

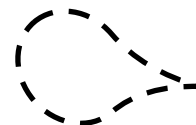
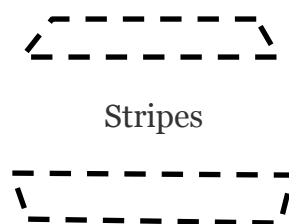
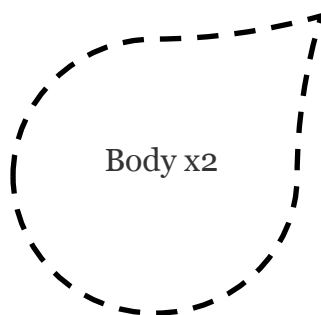
### Instructions:

1. Cut out the templates below.
2. Use the templates to trace the following shapes onto the funny foam:
  - a. Two black body parts
  - b. Two yellow stripes
  - c. One white or red tail (depending on which bumblebee you want to make)
  - d. Two black wings
  - e. Two yellow or white eyes
3. Cut out the shapes from the funny foam.
4. Apply glue around the pointy edge of one of the black body parts. Make sure you don't glue the other end because you need this to be open for the pencil to fit inside. Stick the second black body part on top of the glue so that the pieces stick together.
5. Next use the glue to stick the yellow stripes, eyes and tail on.
6. Lastly, stick the wings on.
7. Leave the glue to dry and then attach to the end of your pencil.



An Early bumblebee pencil topper

### Templates:



If you want to make your pencil topper more accurate you could add the three little black simple eyes and an extra set of wings – bumblebees have four wings.



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