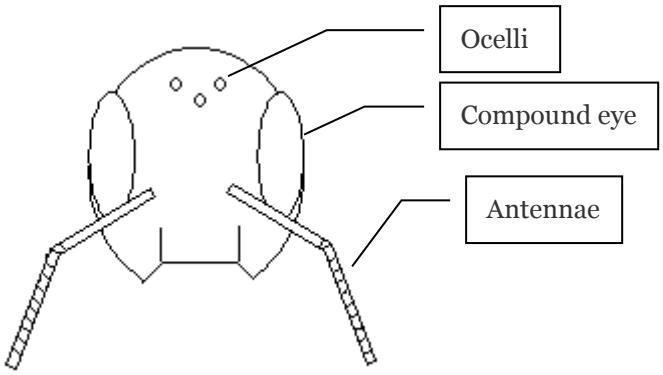
How bees find flowers

Like humans, bees use their senses to find food. If you've ever looked closely at a bumblebee you will notice that it actually has five eyes on its head – one large pair of compound eyes and three, much smaller, simple eyes or ocelli. You can see these in the photo and diagram below.



These eyes have different functions – the compound eyes detect shapes, colours and movement, whereas the ocelli sense light intensity. The antennae help the bee to sense touch and smell. Together these help the bee to navigate to and from flowers and land on the flowers, even when they are moving in the wind.

What about colour?

Bees see colours very differently to humans. Whereas we see colours on a spectrum of red, green and blue, bees cannot see red. They see blue, green and ultra violet (UV) light instead.

Left – what we see.

Middle – what a bee might see.

Right – Bird's-foot trefoil, a bumblebee favourite, appears yellow to us and green to bees.

Flowers have evolved with bees to take advantage of this. Many flowers emit a UV light which appears to a bee like a landing strip, guiding the bee to the pollen and nectar. This relationship is referred to in the scientific world as symbiotic, meaning that bees and flowers have a relationship that benefits both parties.

Colour activity

Use the code below to draw two views of the same garden – one to reflect human vision and the other to show bee vision.

Humans									
Bees					+UV	+UV			

Source: http://brookfieldfarmhoney.wordpress.com/2013/01/30/the-eyes-have-it-honeybee-eyes/

Human view of the garden

Bumblebee view of the garden

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