UNIT 3

Insects, colour and camouflage

Insects use colour to send a variety of messages or to conceal themselves from predators.

Warning colours in nature

Combinations of red and black or yellow and black are used as warning colours. They warn birds that insects, such as ladybirds, taste terrible. Similarly, the colours warn that bees and wasps can inflict painful stings.

Flash colours

Some grasshoppers use both colour and camouflage to great effect. At rest, their brown and green colours camouflage them among plants and twigs. If they are disturbed by a bird, they fly off, flashing brightly-coloured hind wings. Then, quite suddenly, they land again and disappear into the background. The confused bird is left searching for its prey.

Mimics

Quite harmless insects, such as clearwing moths, hover flies, bee flies and some beetles mimic the warning colours of wasps, bees and ladybirds. Predators are usually fooled and leave them alone.

Eyespots

Some butterflies, moths and their caterpillars have large, staring eye-like markings which are flashed to scare off birds. The birds are thought to mistake the eyes for those of one of their own enemies, for example, a cat.

▲ *The Io moth has markings which look like eyes.*

◀ *The yellow and black colouring of the hover fly warns birds not to eat it.*

▼ *The Eumorpha typhon moth is camouflaged amongst the dead leaves and twigs.*

Frightening face

The green and brown colouring of the puss moth caterpillar camouflages it among willow and poplar leaves. But if something disturbs it, it rears up, flashing false eyes and lashing out with its tentacle-like hind legs. If this doesn't work, it squirts formic acid at its attacker.

Camouflage

Many insects camouflage themselves by looking like something else, for example, twigs, thorns, leaves or flowers. With their long, slender bodies, stick insects can hold themselves still and look exactly like the twigs they are resting on. They will even sway as if they are twigs being blown by a breeze. Their eggs, too, are camouflaged to look like plant seeds. ⇨

Industrial colouring

Peppered moths in Britain and Europe have evolved two forms of camouflage to suit their particular environments. In country areas, they are light and speckled to hide them against lichen-covered tree trunks. But in industrialised areas, they have evolved a darker colouring to match soot-blackened tree trunks.

Other insects have also undergone this process, which is called industrial melanism. There are darker forms of many moths and grasshoppers.

▲ *The peppered moth*

Answer in sentences.

1 What colour combinations tell birds that an insect would taste terrible if they ate it?

2 Explain how some butterflies can scare birds away just by using their wings.

3 Why is it very difficult to see grasshoppers when they are among plants and twigs?

4 Why are stick insects very hard to see when they are on twigs?

5 What do the eggs of stick insects look like?

6 Is it true that grasshoppers can fly?

7 Is it true that birds eat caterpillars?

8 Read the "Flash colours" section again. Which word in the section means "bewildered"?

9 Explain what "camouflage" means.

10 Explain what "slender" means.