

ACTIVITY SHEET

KS3 Wildlife in streams

Spot the signs of pollution

External signs

Walk down a local stream and look for signs of pollution:

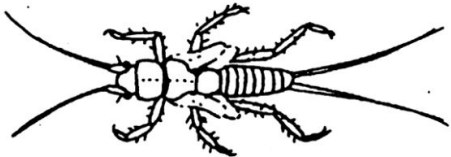

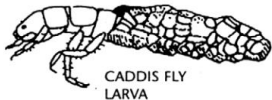
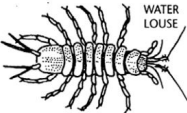
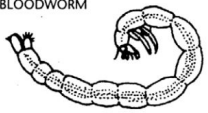
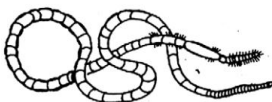

- cloudy or discoloured water
- bad smells
- dead fish or animals
- lots of algae

Check the water quality of a stream

If you take a sample of water from a stream, you can examine the creatures in the sample to tell how healthy the stream is. Animals vary in how much pollution they can tolerate and so indicate the health of the stream. We call these indicator species.

Water Quality

Indicator animals found in sample

Extremely good	Stonefly nymph Mayfly nymph (plus creatures below)		
Very good	Freshwater shrimp Caddis fly larva (plus creatures below)	 FRESHWATER SHRIMP	 CADDIS FLY LARVA
Fair	Water louse Blood worm (midge larvae) (plus creatures below)	 WATER LOUSE	 BLOODWORM
Poor	Sludge worm Rat-tailed maggot		 RAT-TAILED MAGGOT
Very polluted	none found		

Who eats whom?

In a healthy river you might find:

Fish, kingfishers, otters, voles, dragonfly, nymphs, worms, larvae, frogs, insects, water beetles, tadpoles, perch, pike, minnows, water weed, herons ..and many more!

We can divide these creatures into:

producers - green plants that make their own food by photosynthesis

herbivores - plant eaters

carnivores - meat eaters who can be:

- first order carnivores who eat herbivores
- second order carnivores who eat other carnivores

detrivore - eat decaying plants or animals

Food web

1. In a river, think of the different **food chains** (diagrams showing the direction in which energy passes from one level to the next - ie who eats whom).
2. Build a **food web** (a group of linked food chains representing the energy flow in a habitat). Draw it below.
3. What would happen if the river became **polluted** and some of the small plants and animals died? How would the food web be affected?