LEARN AT CHESTER ZOO REDUCING POLLUTION

Our rivers, lakes, ponds, and seas are full of thousands of species of plants, animals, and microbes. But pollution can damage these habitats and the wildlife that live there in many ways. We tend to think of pollution as something that comes out a car exhaust or a factory, but many of the things we do at home and in our gardens cause different types of pollution. It can then make its way into water bodies through the soil or air. Use this resource to find out about some of the main ways we affect our aquatic wildlife and how you can help reduce pollution.

MICRO-PLASTICS

What are they?

Small pieces of plastic less than 5mm in diameter. They are found everywhere in the environment, such as water bodies, the soil, and the air. They can come from a huge variety of sources, but common household sources include fibres that break away from clothes during washing and household waste.

How do they affect wildlife?

They can have many negative effects on wildlife, including harming the digestive tracts of animals that ingest them, lowering nutritional uptake, and causing blockages in the gut. Germs are also able to group together on micro-plastics, so they can carry disease. Plastics don't decompose, which means they won't completely disappear from the environment. Instead, they break down into smaller and smaller pieces, which makes the problem worse.

What can you do to help?

The best way to help is to **reduce** your plastic use. Try using a refillable water bottle or buying filters for your washing machine to catch breakaway fibres.

FERTILISERS

What are they?

Material that provides nutrients to help plants grow. They can be organic (natural) or synthetic (human-made).

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How do they affect wildlife?

When fertilisers get into water sources they can cause eutrophication. This is when there are excess nutrients in the water, which can lead to algae spreading across the surface (known as bloom). This has many negative consequences for wildlife that live there, such as killing plants by stopping light reaching them, reducing visibility, changing the pH of the water, or reducing the oxygen supply in the water once the algae die.

What can you do to help?

Use compost or manure fertilisers, as these contain less of the chemicals that cause eutrophication. Setting up your own compost heap is a great way to encourage wildlife to your garden too.

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PESTICIDES



What are they?

Substances designed to kill garden or crop "pests". They can be organic (natural) or synthetic (human-made).

How do they affect wildlife?

Pesticides, like fertilisers, can get into water by running off surfaces or making their way through the soil. Though designed to target and kill certain wildlife, pesticides can often unintentionally kill lots of other wildlife too, including those that live in water. Pesticides can also accumulate in larger animals when they eat lots of smaller animals that have ingested pesticides. This is called bioaccumulation.

What can you do to help?

Finding alternatives to pesticides is the best way to help wildlife, companion planting is one example. If you do use pesticides, do so carefully – spray at an appropriate height, during dry, cool weather and in low winds to stop too much spread. Try to leave a 2m boundary around the sprayed area and don't use near bodies of water. Remember to store and dispose of the bottle correctly.

MEDICINES



What are they?

Tablets, liquids, and sprays designed to make us feel better and cure our ailments.

How do they affect wildlife?

Medicines most often get into waterways through sewage and factory run-off, and most water treatment plants aren't designed to filter them out. As there are many, many types of medicine, they can have many, many effects on wildlife. For example, they can cause tissue damage, alter behaviour, reduce reproduction, and contribute to antibiotic resistance (which means medicines are less effective at fighting germs).

What can you do to help?

Dispose of expired medicines and medicine containers safely. The best way is to take them back to a pharmacy. **DON'T** flush them down the toilet.

YOU CAN HELP RAISE
AWARENESS
by telling others about
this at school or at work.