TECHNOLOGY NETWORKS

MICROPLASTICS

Once heralded as a wonder material, plastics have become a problem issue for society. They have been and still are invaluable in many aspects of our lives, providing a material with which we can make everything from tools and toys to buttons and food packaging. However, the long-term effects of plastic disposal have meant that our environment has paid the price. Whilst biodegradable plastics are a hot topic for research, many are yet to be fit-for-purpose, on top of which there are vast quantities of plastic already in existence. Litter picking and safe disposal can contribute to lessening the impact of plastics, however one area in particular – microplastics – are particularly problematic. In this infographic we take a look at microplastics, where they come from and what harm they do.

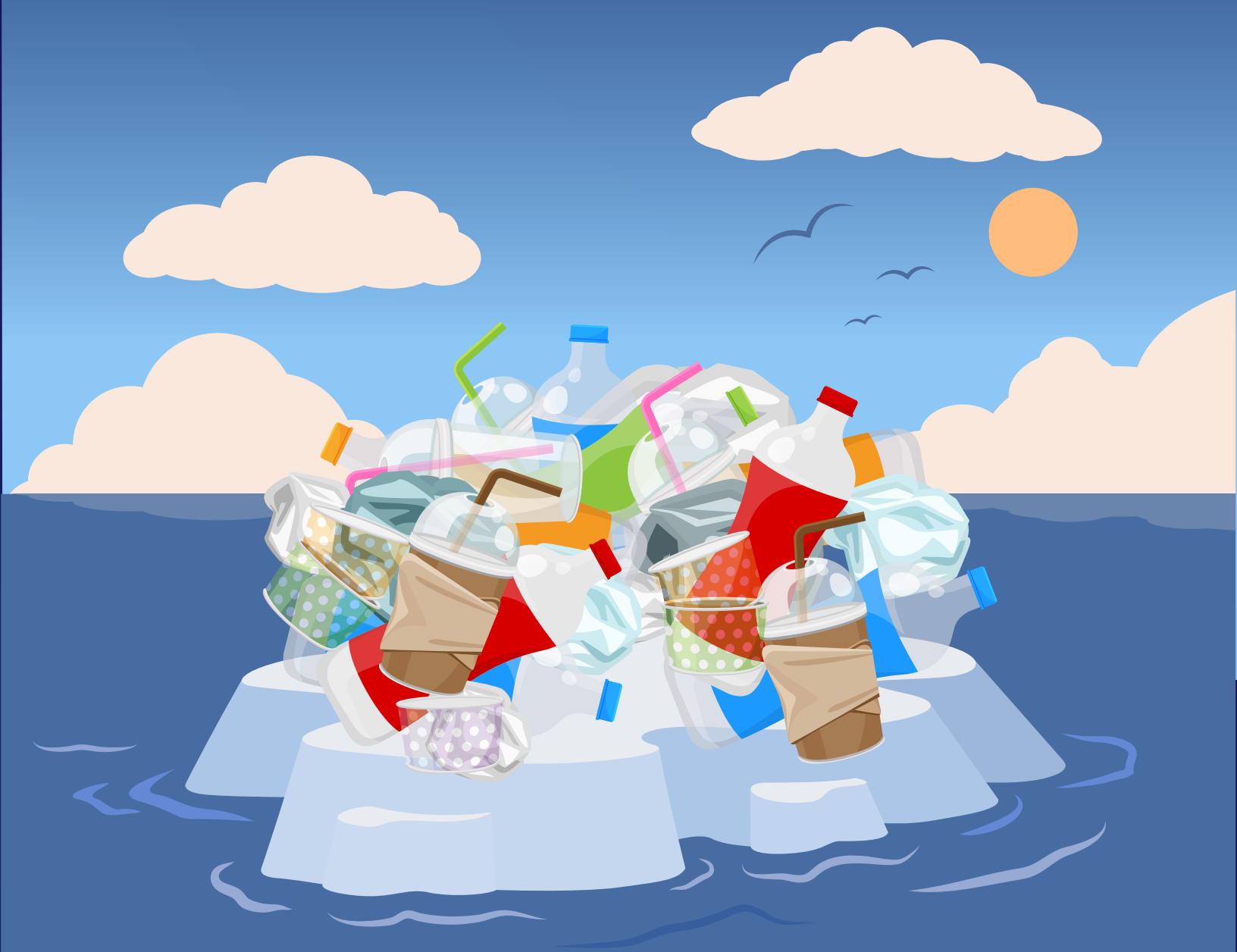
What are MICROPLASTICS and where do they come from?

Microplastics are defined as all forms of plastics less than 5 mm. Particles below 1 µm are classed as nanoplastics.

PRIMARY MICROPLASTICS
Plastics that are produced in "micro" form e.g. microfibers from clothes, beads in personal care products like toothpaste and facial scrubs, pre-production pellets.

SECONDARY MICROPLASTICS
Larger plastics that are broken down into smaller pieces over time, for example by the grinding action of the ocean, or degradation by UV light.

Pathogens can hitch rides on PLASTIC POLLUTION in the ocean and spread disease



Plastic particles are known to carry specific combinations of metals, pollutants and pathogens (bacteria, viruses and other microorganisms that can cause disease).

Of particular concern are the increasing reports of the presence of numerous pathogens on plastic surfaces in oceans around the world.

One study found antimicrobial-resistant bacteria at concentrations 100-5,000 times higher on microplastic surfaces than in surrounding seawater.

This is one of many emerging risks we must consider as a result of human impact on the ocean and highlights the connection between ocean risks and public health and safety.

Should PLASTIC PRODUCTION be banned?

Plastic is an incredibly versatile material and has a lot of advantages over other materials. However, with that being said – it is of paramount importance for us to drastically reduce the amount of plastic we are introducing into the environment. It's not just the companies manufacturing plastic that need to shoulder the sole responsibility and burden for this – it is also up to us as consumers to become more responsible in how we use, reuse, recycle and dispose of plastic in the future.