Activity: School uniform survey

When clothes are washed, they shed tiny fibres which are carried down drains and can end up in the sea. Synthetic materials are made from plastic and therefore shed plastic microfibres. In this activity, pupils look at the materials used in their favourite clothes and consider the potential impact on the ocean.

You will need:

- Pieces of the following natural fabrics for each group: silk, cotton, wool, denim
- Pieces of the following synthetic fabrics for each group: Lycra, fleece, nylon, polyester
- Types of fabric worksheet for each group
- Survey forms and tally charts

60% of the material used in making clothes worldwide is a form of plastic, for example polyester, nylon and acrylic.

This means microfibres from these fabrics are tiny pieces of plastic.

What to do

Characteristics of fabric

1. Divide the pupils into groups and give each group the pieces of fabric and a types of fabric worksheet.
2. Ask the groups to match the fabrics to the names. Confirm the correct answers and then ask the groups to describe and record the characteristics of each fabric, using as many adjectives as possible.
3. As a class, discuss the fabric characteristics.

Plastic microfibres

1. Ask the groups to separate the fabrics into synthetic and natural.
2. After confirming the correct answers, explain that natural fibres are made from plants or animals, whereas synthetic fibres are created by humans from chemicals and are a form of plastic.
3. Watch the animation to find out about the effect of plastic microfibres on the ocean.

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Activity: School uniform survey

School uniform survey

1. Give each pupil a survey form and ask them to record the fabric used in each piece of their school uniform.
2. Use the tally charts to calculate how many times different types of fabric were used.
3. As a class, collate the findings. Which were the most frequently used fabrics? Why are they used? What properties make them suited to this use?
4. If one load of washing can release over 700,000 microfibres, discuss the possible impact of everyone's clothing on the ocean. (See Plastic pollution and clothing below for talking points.) Talk about the difference between the impact of synthetic and natural microfibres on the ocean and the creatures in it.

Preparing for Step 3

In Step 3, you'll take action to help clean up our seas.

If you decide to take action to reduce microfibre pollution, prepare by discussing how we can reduce microfibre pollution. Head to our Stop Ocean Threads webpage for our campaign video and useful information.

Once pupils understand how we can reduce microfibre pollution, you can move on to Step 3. You can carry out your Step 3 project in the way that best suits your school's circumstances.

We've created pupil workbooks that each show one possible approach:

- Challenge friends and family to Stop Ocean Threads
- Write to local politicians to ask for washing machines to be fitted with filters
- Write to uniform retailers and manufacturers to ask them to change fabric used
- Hold a school uniform swap

Fashion and the ocean

Plastic pollution and clothing

Our clothes are made of millions of tiny fibres. With every wash, these microfibres shed from our clothes.

- 60% of the material used in making clothes worldwide is a form of plastic, including polyester, nylon and acrylic. This means microfibres from these fabrics are tiny pieces of plastic.
- A single wash can release over 700,000 microfibres. Every week in the UK, about 9.4 trillion fibres are released from washing clothes.
- The fibres are too small to be filtered at sewerage plants and many are released into rivers and ultimately our ocean. Once in the ocean, animals can ingest microfibres and they build up in the food chain over time. Microplastics have been found in many types of seafood we eat, including mussels, fish and shrimp.
- New clothes release the highest levels of fibres when first washed.

Climate change and ocean warming

Climate change is causing ocean temperatures to rise, affecting many plant and animal species. Rising carbon dioxide levels are causing ocean acidification, and rising air temperatures are causing extreme weather events and melting ice in polar regions, affecting fragile coastal communities and habitats.

- The fashion industry accounts for 10% of global carbon emissions, more than all flights and shipping activity combined.
- In the UK, an estimated 350,000 tonnes of clothes end up in landfill every year. That's over 15,000 rubbish trucks!
- It's estimated that we bought 60% more clothes in 2021 than in 2000. According to the World Bank, 40% of clothing purchased is never worn.
- Returning items bought online can double the transport emissions. It can be cheaper for some online retailers and brands to dump or burn unwanted returns rather than repackaging and reselling.
- Did you know that less than 1% of material in unwanted clothing is recycled into new clothing?

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Types of fabric

Cotton	Denim
Fleece	Lycra
Nylon	Polyester
Silk	Wool

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School uniform survey form

Name: _____

Class: _____

Record the type of material used to make each piece of your school uniform.
The type of material is recorded on the label on the inside of each item.

Item of clothing	*Type of fabric*	*Synthetic (Yes/No)*

School uniform tally chart

Name: _____

Class: _____

Item of clothing: _____

Type of fabric	*Number of times this fabric is used*	*Total*