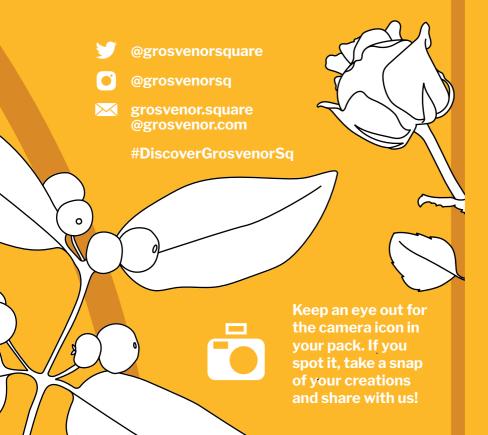
### Urban ecology

In the past few packs we've learned about why nature is so special and important. Our world keeps us happy and healthy and gives a place where plants, animals and humans can exist together.

But sadly lots of our habits and inventions are bad for our planet, and so it's our job to make choices that look after the environment and mean the environment can be the best it can be for thousands more years!

In this pack we are going to become scientists and explore what we can do to look after our local green spaces, and in turn, ourselves! Have a go at our three experiments and don't forget to share what you discover with us.







It might be invisible, but everyday the average adult breathes in 11,000 litres of oxygen - that's enough to fill nearly 140 baths! So it's really important to keep our air clean and healthy.

How much do you know about air pollution already? Take our short quiz and find out!

Which way of travelling creates the **least** pollution?





Which part of our bodies does air pollution affect **most**?



a. Feet

b. Eves



c. Lungs

Which of these is **not** a cause of air pollution?







### DIY pollution catcher



#### You will need

- Petroleum jelly (vaseline)
- 2x white paper plates or bits of clear / white plastic
- · Hole punch
- String



2. Use a hole punch to make two holes at the tops, about 15cm apart.



Hang one up in a dry outdoor spot, and hang the other indoors. Leave for 24 hours or longer!



Spread petroleum jelly across the top of your plates or pieces of plastic.



Thread some string through the holes and tie to make a loop on each.



Collect your catchers and inspect for specs of pollution.
Which one had the most?

# nswers: Medicine, toothpaste, cooking oil, toilet aper, cleaning spray and shampoo

# Saving our water supply



Looking after our water isn't just about having quick showers or turning the tap off whilst you brush your teeth (it's still important though!). We also need to think about how we keep our water supply clean!



Can you find all 6 things in the picture that might go down the drain? Use a pencil to circle them!

The cleaning products we use, how we throw away medication and chemicals, right down to the brand of toothpaste we choose can all have an impact on how clean our water supplies are.

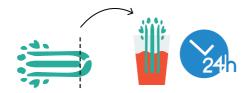
Check out our experiment on the other side to understand how these things can find their way back into our local green spaces, food supplies and onto our plates.

## Polluted water experiment



#### You will need

- A glass or cup
- Water
- · Red or blue food colouring
- A knife
- Celery stalk with leaves



2. Ask an adult to cut the bottom off the stalk of celery, and place in the glass. Leave for a whole day.



Ask an adult to cut the celery to see how far up the food colouring goes. This is how pollutants can enter our food.





Fill your cup with water and add a few drops of food colouring (this represents pollution in the water).



3. After a day, return to the celery - how has it changed? What colour are the leaves and stalk?


What did you find? Write it here

# Why is healthy soil important?



Soil is made up of lots of different materials - having the right balance of these gives plants the best chance at growing big and healthy.

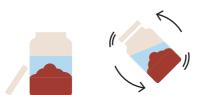
This diagram shows all the different parts of soil from the gardening centre, and how much there is of each. Try the experiment on the next page and colour in the empty jar to show the layers you find in your soil at home.

# What's in your soil?



#### You will need

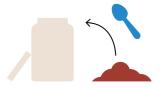
- A clear, tall container with a removable lid (e.g. old jam jar or plastic bottle)
- · Soil sample to test
- Water



2. Then pour in enough water to cover the soil, plus 1-2cm. Put the lid on and shake!



Can you see the different settled layers? Check out our diagram overleaf and share what you find with us!



Fill about a third of your container with your soil sample.



Place on a surface and allow to settle for a few hours or overnight.



You can do this with soil from different areas and compare them. Which one has the most plants growing in it?

### What can I do for my local green space?

Have a look at the ways you can help local green spaces stay healthy for hundreds of years! Tick the promises you can make below, and write one on the other side to share with us.

#### I can help keep soil healthy by...

- **Putting leftover** food into the compost, not the bin
- Plant trees and flowers in empty soil



Look after the worms and bugs helping care for the soil (check out our Biodiversity pack to

#### I can keep our water healthy by...



**Collecting rain** water to use for watering plants



Making sure oil and cleaning products go in the bin, not down the drain



**Keep showers short** and turn off the tap whilst brushing my

### I can reduce air pollution by...



**Walking or riding** a bike instead of using vehicles



**Tell my friends** about why it's important to keep our air healthy



**Add more plants** inside my house or in my garden, balcony or window

### I promise to look after my local green space by

### because



