

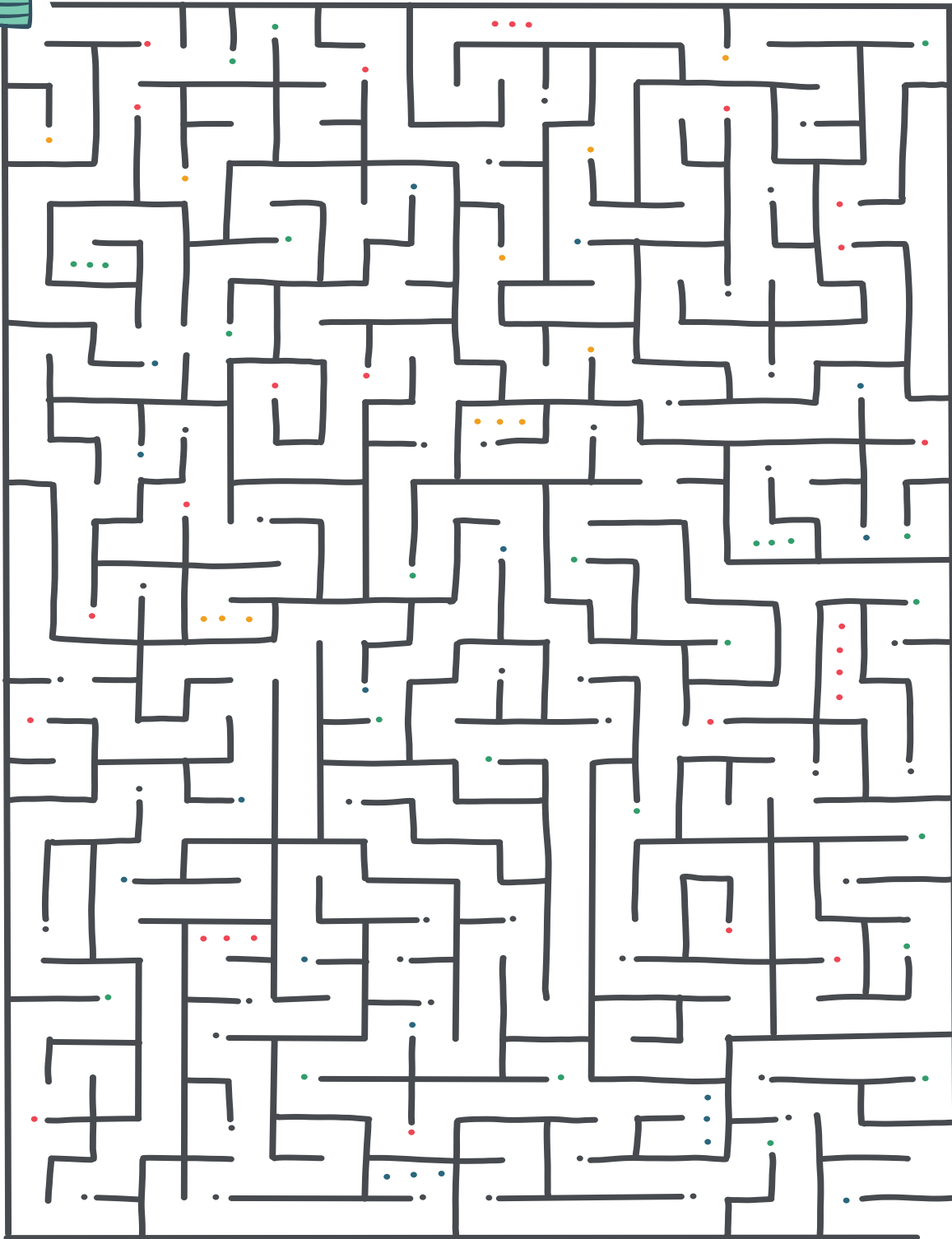
AIR_{FOR}KIDS

by Airthings



THE AIR QUALITY ACTIVITY BOOKLET

WITH CROSSWORDS, WORD SEARCHES, COLORING PAGE,
MAZE, QUIZZES, MATCHING ACTIVITIES AND MORE!



Oh no! The air quality dog has lost his little party hat!

Can you help him find his way through the maze to get it back?



Start here!

Matter can exist in one of three main states: solid, liquid, or gas. But which of these words are gases?

Colour the circles that contain gases !

Metal

Oxygen

Trees

Water

A table

Carbon dioxide

Nitrogen

Bicycles

Sugar

Radon

A bucket

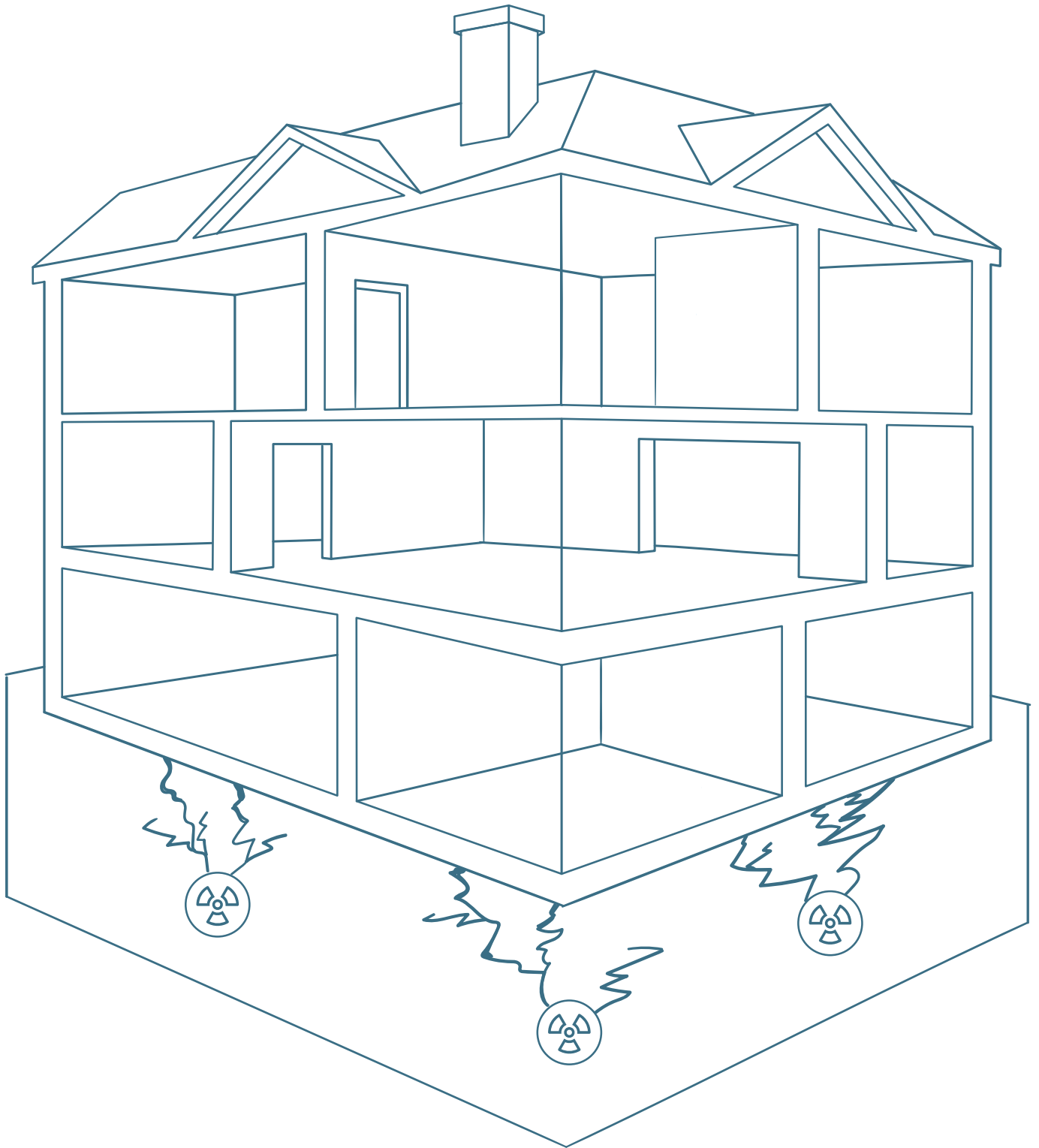
Cars

Oil

Paper

Methane

The image contains 15 circles with the following text inside: Metal, Oxygen, Trees, Water, A table, Carbon dioxide, Nitrogen, Bicycles, Sugar, Radon, A bucket, Cars, Oil, Paper, and Methane. At the bottom of the page, there are three blue, cloud-like or smoke-like shapes of varying sizes.

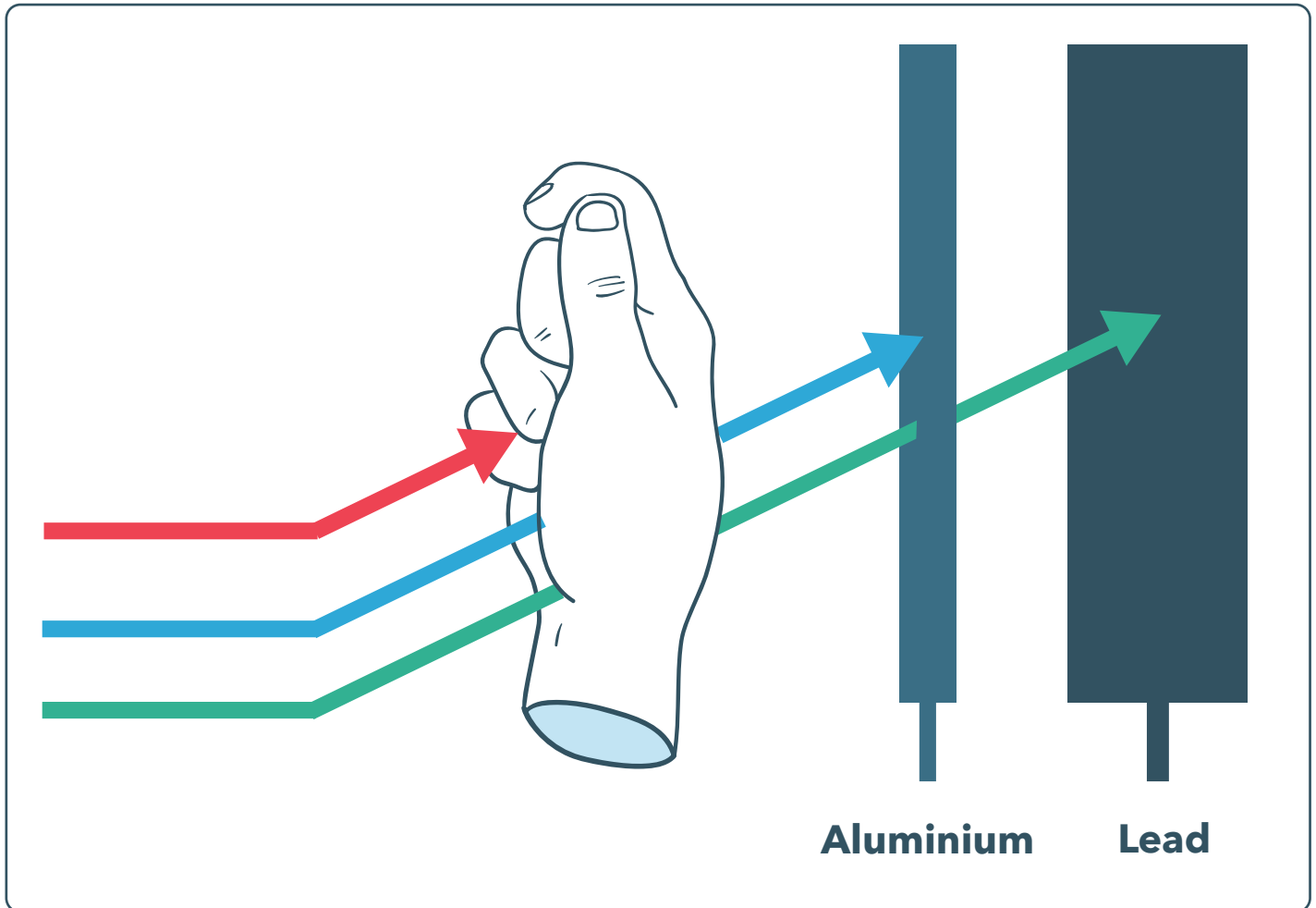


Radon is normally found in the ground, but it can get into buildings through cracks and holes in the foundations. Because radon is a gas, it can get to both ground floors and upper floors. This is because the rocks and soil beneath buildings can contain traces of uranium.

Radon gas is invisible, but what do you think it would look like if it was visible? Like clouds? Or maybe like smoke?

Draw the radon gas coming from the ground into this house!

There are three types of radiation. But what are they called? **Fill in the types of radiation on the image and in the sentences below!**



_____ radiation is the most penetrating, it can get through air, and even thin metal!

_____ radiation can be stopped by a human hand, making it the least penetrating out of the three.

_____ radiation can get through air and paper, but thin metal will stop it.



Can you find these words?

RADON

INDOOR AIR

POLLUTION

OXYGEN

GLOBAL WARMING,

PHOTOSYNTHESIS

RADIOACTIVE

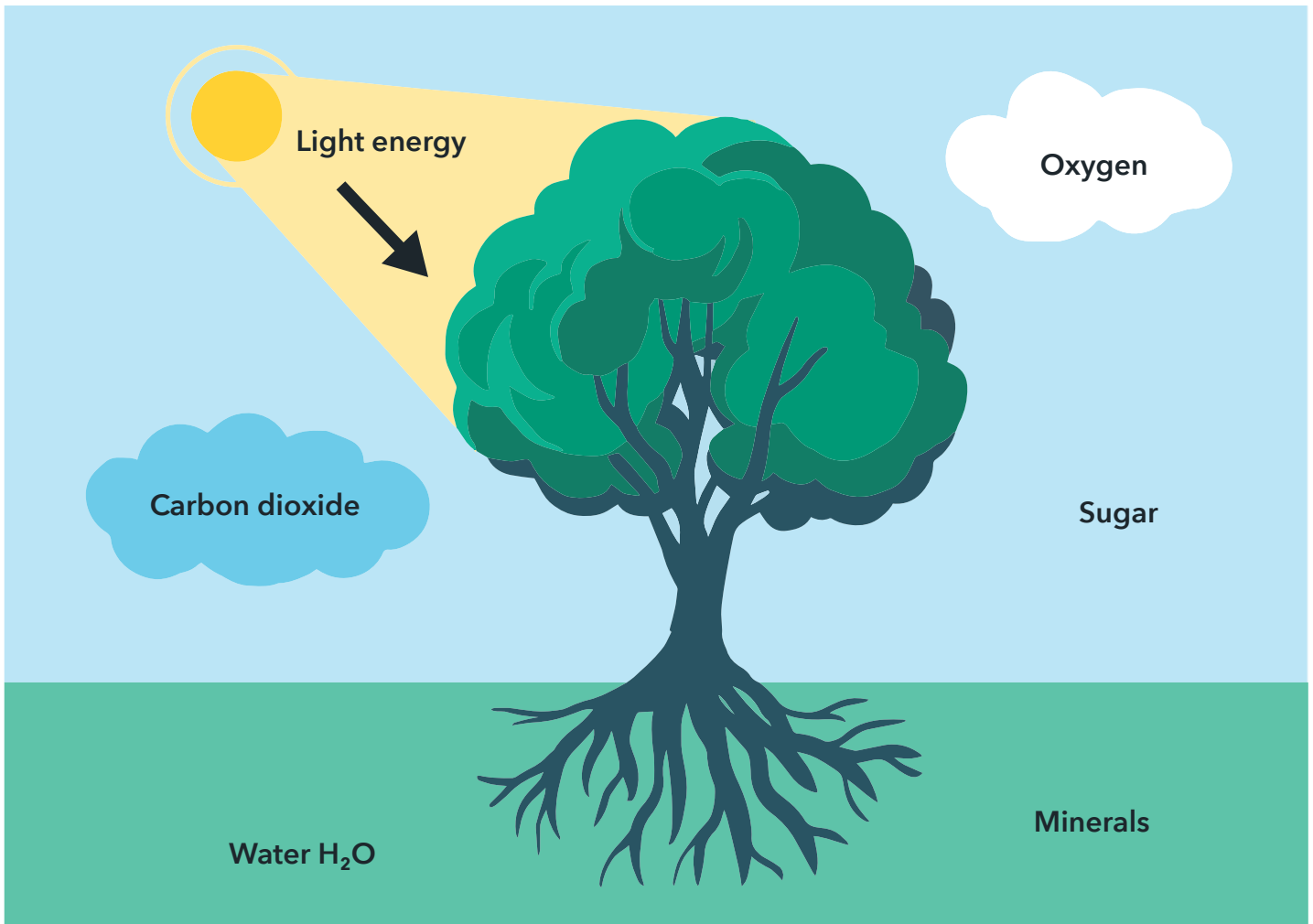
URANIUM

CLIMATE CHANGE

OUTDOOR AIR

NITROGEN

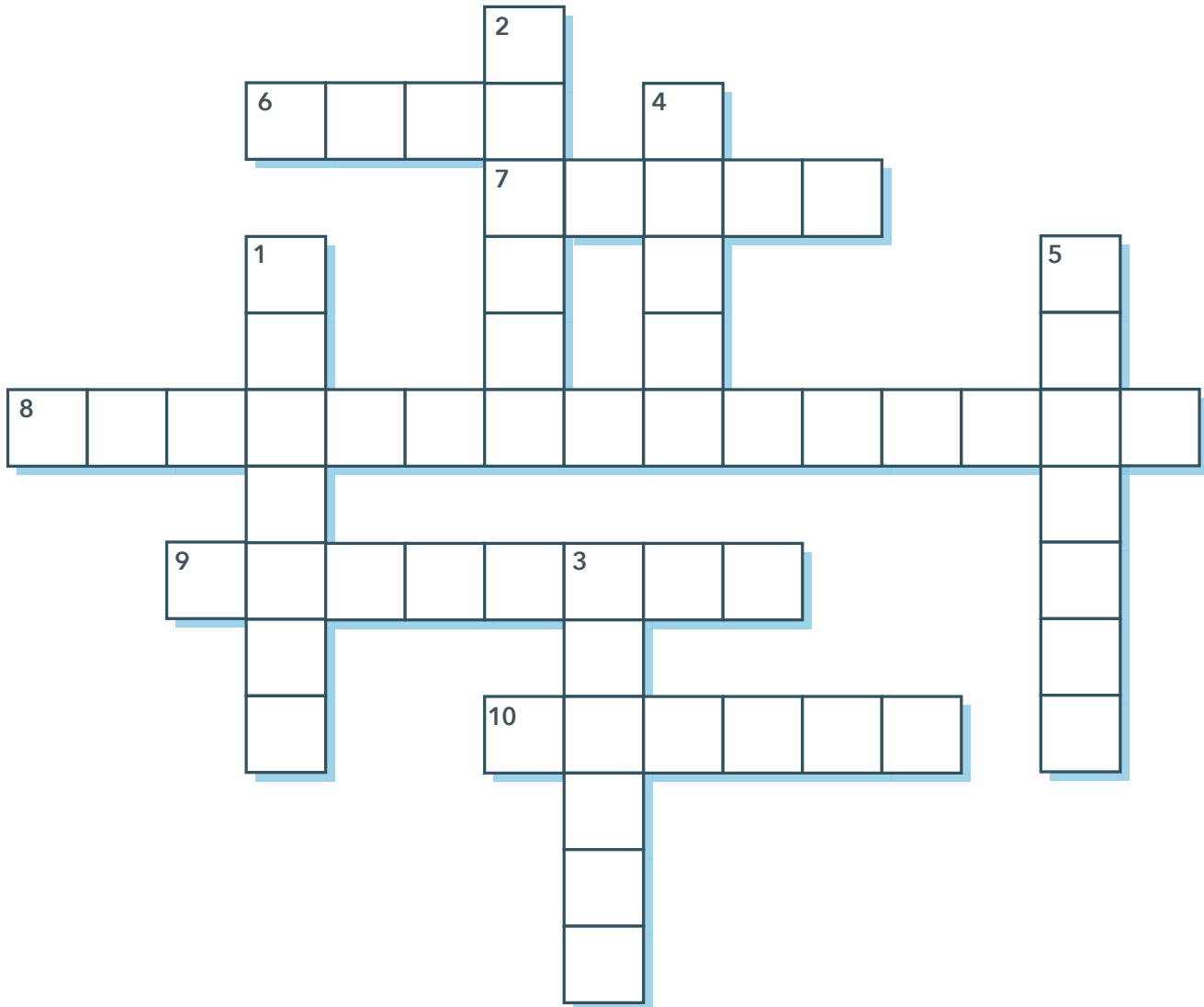
ATMOSPHERE



Photosynthesis is the process where plants transform light energy into chemical energy. During photosynthesis in plants, light energy is captured. This light energy is used to convert water, carbon dioxide, and minerals into oxygen.

Draw the arrows of photosynthesis on the tree! The first one has been done for you. We know plants absorb light energy, so the arrow is pointing towards the tree.

Do you know all the words in this crossword puzzle?



Down:

1. Carbon _____ is an odorless, colorless gas.
2. The air is a mixture of _____ which make up the atmosphere.
3. Radon is normally found in the _____!
4. Humans gets exposed most to radiation through _____ gas.
5. Air pollution causes _____ change.

Across:

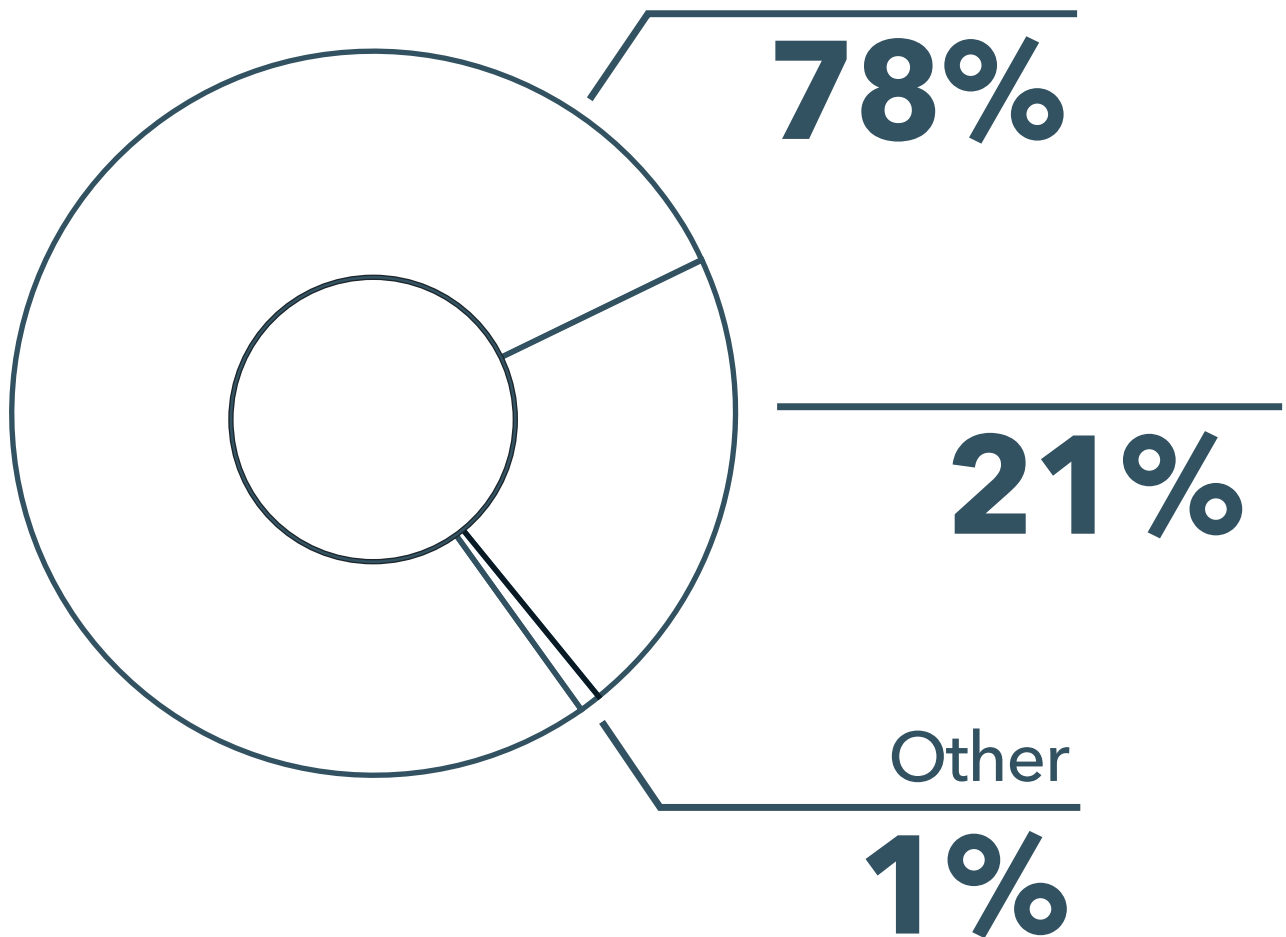
6. There are three types of radiation; Alpha, _____ and Gamma.
7. The only place where there is no air is in _____!
8. Plants create oxygen in a process called _____.
9. The air is approximately 78 percent _____ and 21 percent oxygen.
10. The burning of _____ fuels to power cars is bad for the environment.



VOCs stands for Volatile Organic Compounds, which are a wide range of colorless gases and odors. They can come from many different toxins and chemicals found in household products. Here are some household products that may give off VOCs.

How many differences are there between the two pictures?

Number of differences:



The air is a mixture of gasses which make up the air we breathe.

Write down the two gasses which make up the air in the pie chart above!

Pssst!

Ask an adult for help if it's hard!

There are so many things that can affect the air on our planet both in a good way and a bad way.

Draw lines from the words to the impact they have on the air on our planet!

Trees

Forest fires

Methane from cattle

Volcanoes

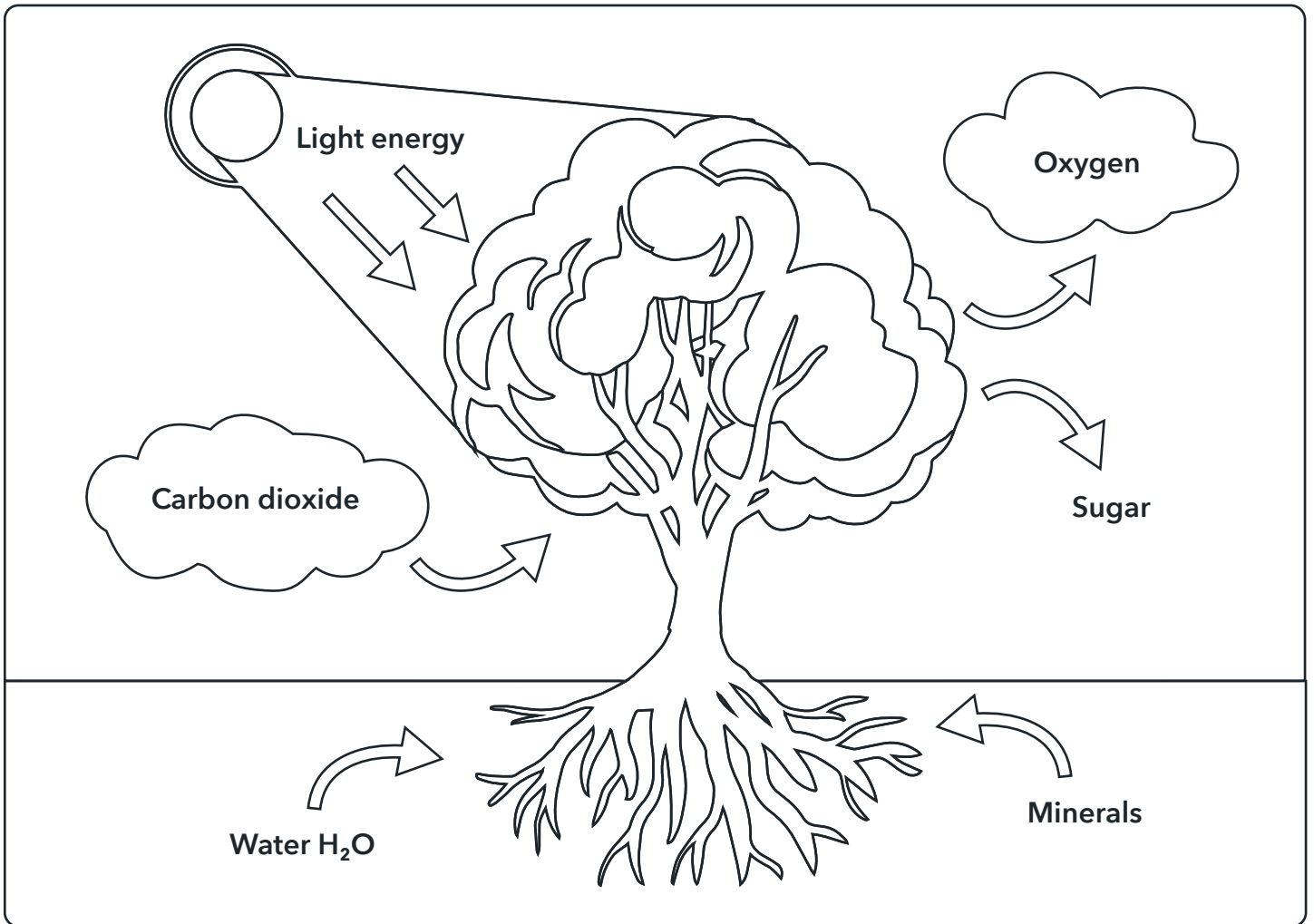
More fossil fuels

Taking public transport

Less fossil fuel

Positive impacts on the air

Negative impacts on the air



Photosynthesis, is the process where plants transform light energy into chemical energy. During photosynthesis in plants, light energy is captured. This light energy is used to convert water, carbon dioxide, and minerals into oxygen.

Color the tree in your favorite colors!

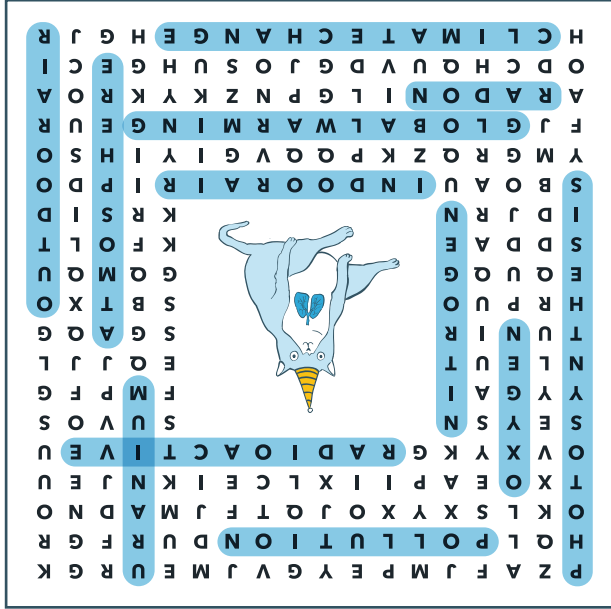
Can pollution be invisible?

Are we really sure that air is invisible? Turn a clear plastic cup upside down and push it underwater in a sink / bathtub / bucket. Then turn the cup slightly on its side: you'll see many bubbles coming towards the water surface.

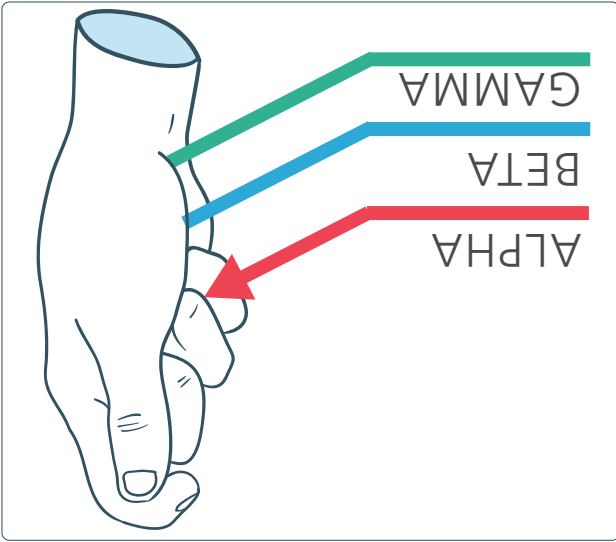
What are the bubbles made of?



**Discuss with a friend or an adult,
and write down your thoughts here:**



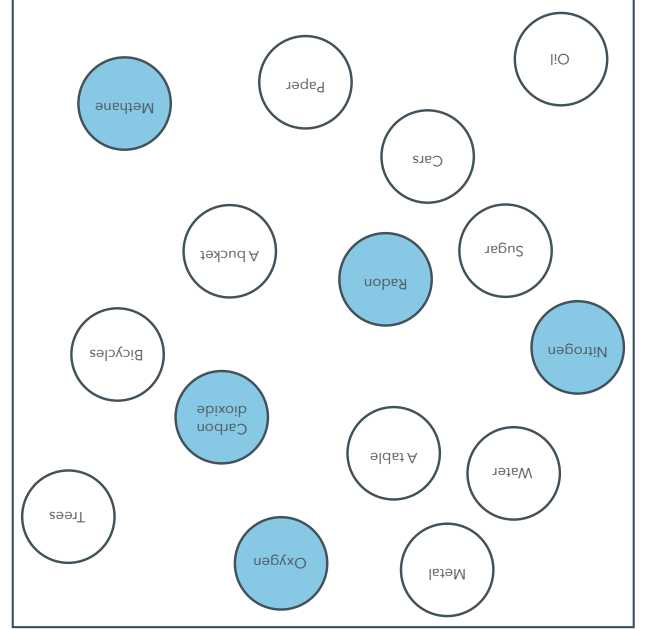
Page 5:



Gamma radiation is the most penetrating, it can get through air, and even thin metal! Alpha radiation can be stopped by a human hand, making it the least penetrating out of the three. Beta radiation can get through air and paper, but thin metal will stop it.

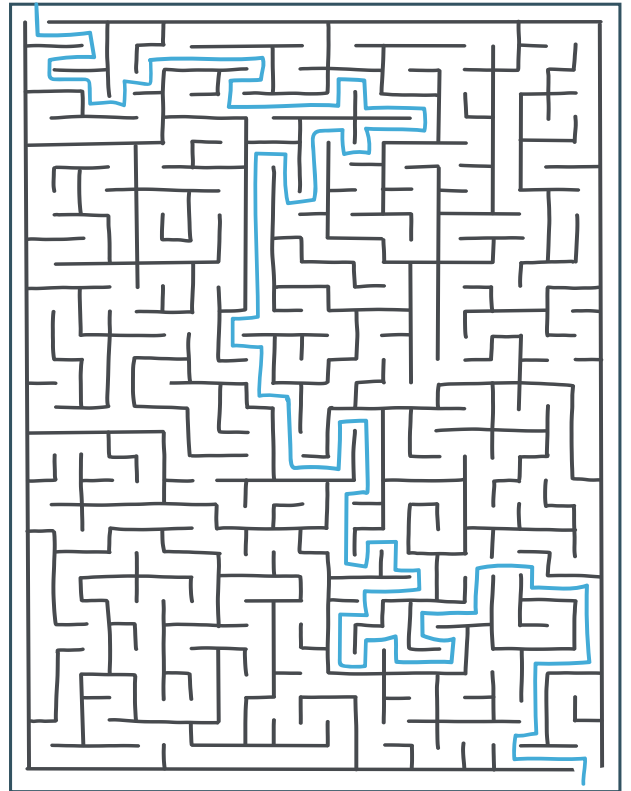
Page 4:

Page 3: No answers, your drawing is awesome!

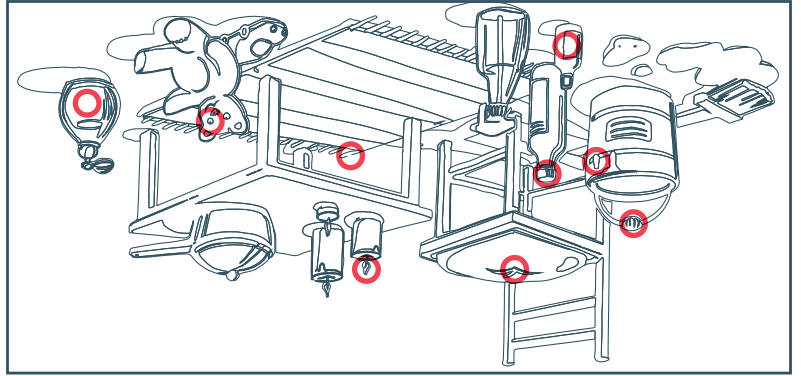


Radon and Methane
Gases: Oxygen, Carbon dioxide, Nitrogen,

Page 2:

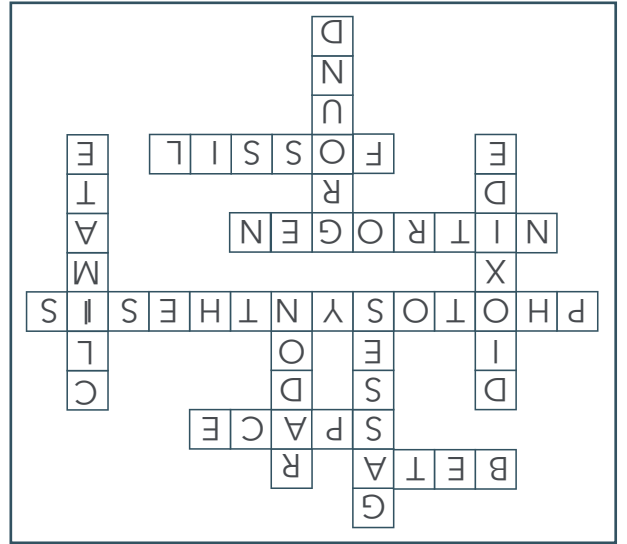


Page 1:



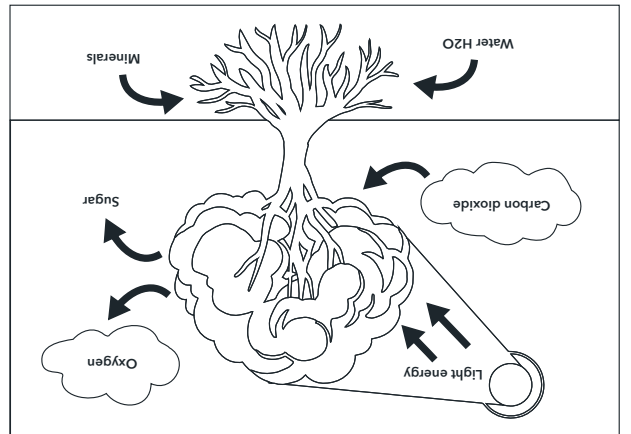
Page 8:

Number of differences: 9



Page 7:

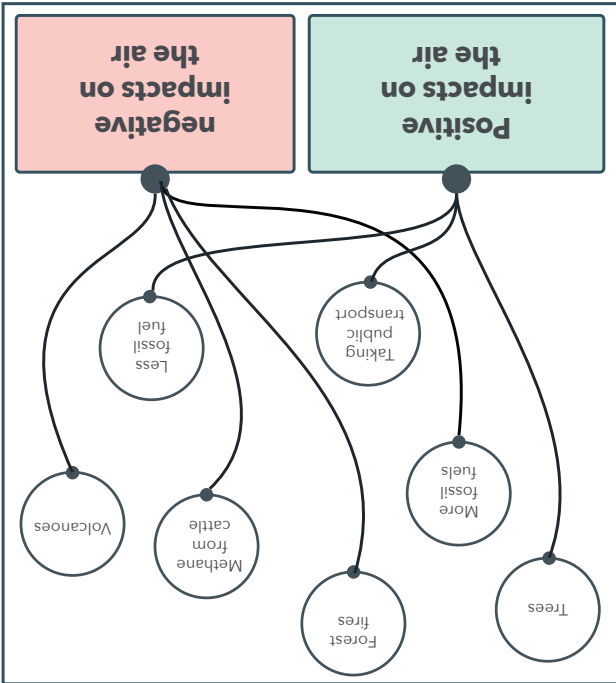
1: dioxide, 2: gasses, 3: ground, 4: radon, 5: climate, 6: beta, 7: space, 8: photosynthesis, 9: nitrogen, 10: fossil



Page 6:

Page 9: Nitrogen 78%, Oxygen 21%

Page 10:



Page 11: No answers, your colouring is great!

Page 12: No answers, hope you had a good talk about air with someone!

**Learn about the
air we breathe at
[Airforkids.com!](https://www.airforkids.com)**

