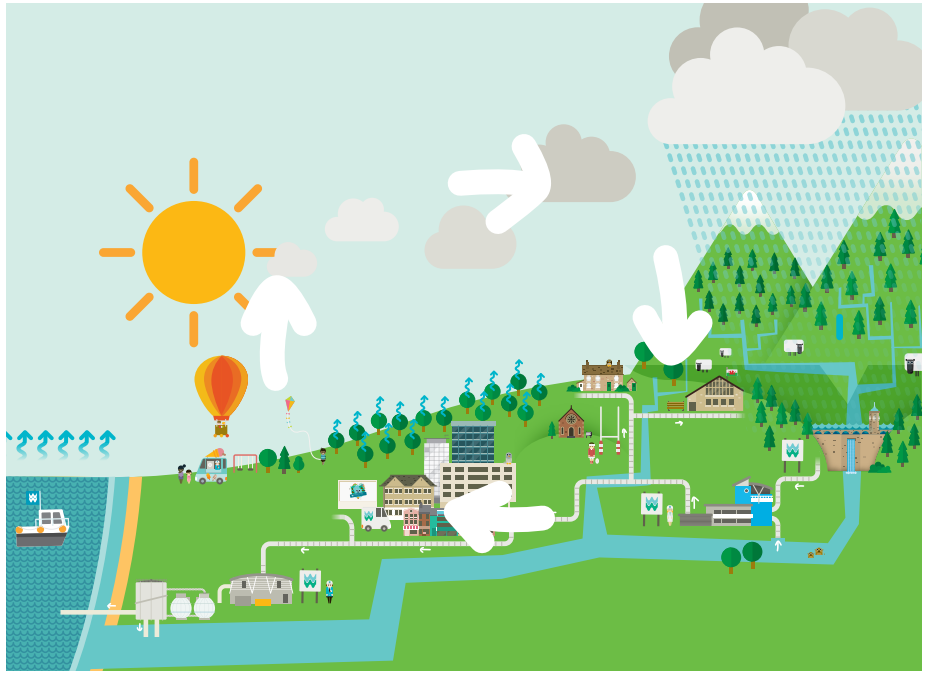
Where does our water come from?

Water goes on a pretty big journey even before it reaches our reservoirs – and we're working really hard to make sure that when it gets there, it's as clean as it could be!

Task 1

Read the following passages to learn about WaterSource. To make things easier, use a dictionary to discover the meaning of some of the most challenging words and record their meaning on the second sheet.

From a cloud in the sky, each raindrop runs from the land and finds its way to streams, rivers and into our reservoirs.



Along the way, it might bump into things that affect its quality, which can make the process of cleaning drinking water, before we send it to your taps, a bit more costly.

What can affect our raindrops?

When rain falls onto land, it might bump into things that affect its quality. This means that when the rain runs into streams and rivers it is not as clean as it could be.

It might land on peatland and grassland high up in the hills, where there could be fires. The rain could wash all of those burned plants into the rivers and reservoirs.

It could land on poo from wildlife and farm animals. Poo contains **bacteria** as well as **nutrients**, when these get washed into the rivers and reservoirs it can make **algae** grow in the water. The algae can make the water turn green.

It might land on fields and gardens where people are growing crops to feed us or flowers for **biodiversity**. If too much **pesticide** (products used to protect crops and plants) is used on the fields, the rain could carry it to rivers and reservoirs.

It could land in the forest. If large areas of trees are being cut down to give us important timber, the soil could get churned up and the rain could cause all this loose soil to wash into the streams and rivers.

It can also land in towns, on roads, parks, playgrounds and paths where it could pick up dirt, oil, litter and plastics, carrying them into rivers and reservoirs.

Why does this matter?

All these things that could be collected on the rain's journey to the rivers and reservoirs mean that when it arrives at our water treatment works it may not be as clean as it could be. So, we have to use more chemicals and energy to get it perfect for you to drink. This costs a lot of extra money and affects our natural resources.

What are we doing about it?

At Welsh Water, we can monitor some of these things by using technology like **satellites**, and sometimes send our scientists out to our rivers and reservoirs to take water quality samples that are tested in our **laboratories**.

We use this information to work with farmers, foresters and communities to find ways of reducing the amount of these things that the rain picks up on its' journey. We try and do this in a way that benefits water, nature and the wider countryside.

We call this our **WaterSource** approach.

Term	Meaning
Algae	
Bacteria	
Biodiversity	
Chemical	
Forester	

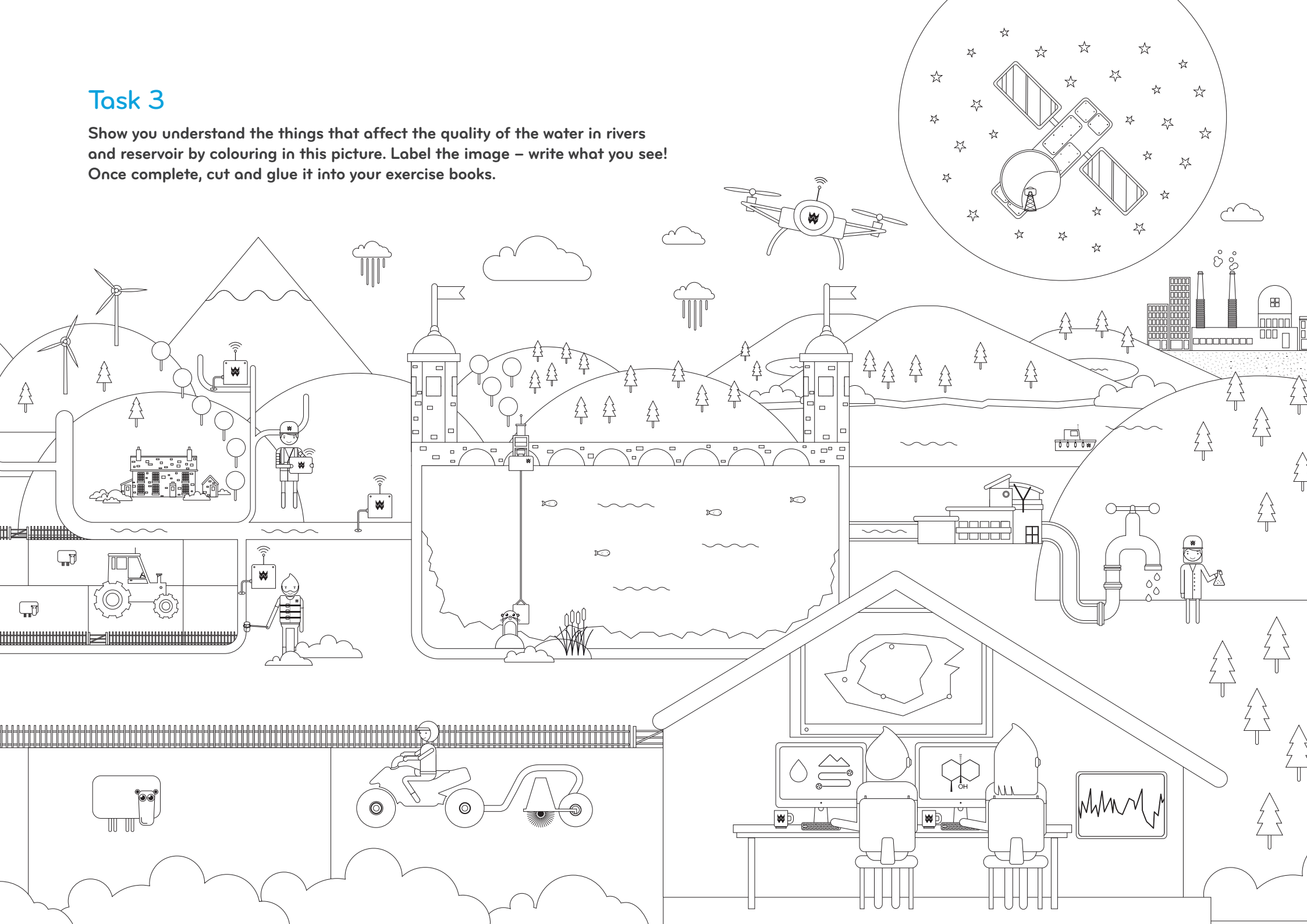
Term	Meaning
Laboratory	
Nutrients	
Pesticide	
Quality	
Satellite	

Task 2

After reading the passage above, draw a series of illustrations to demonstrate 4 things that could affect the quality of rain, by the time it gets to our rivers.

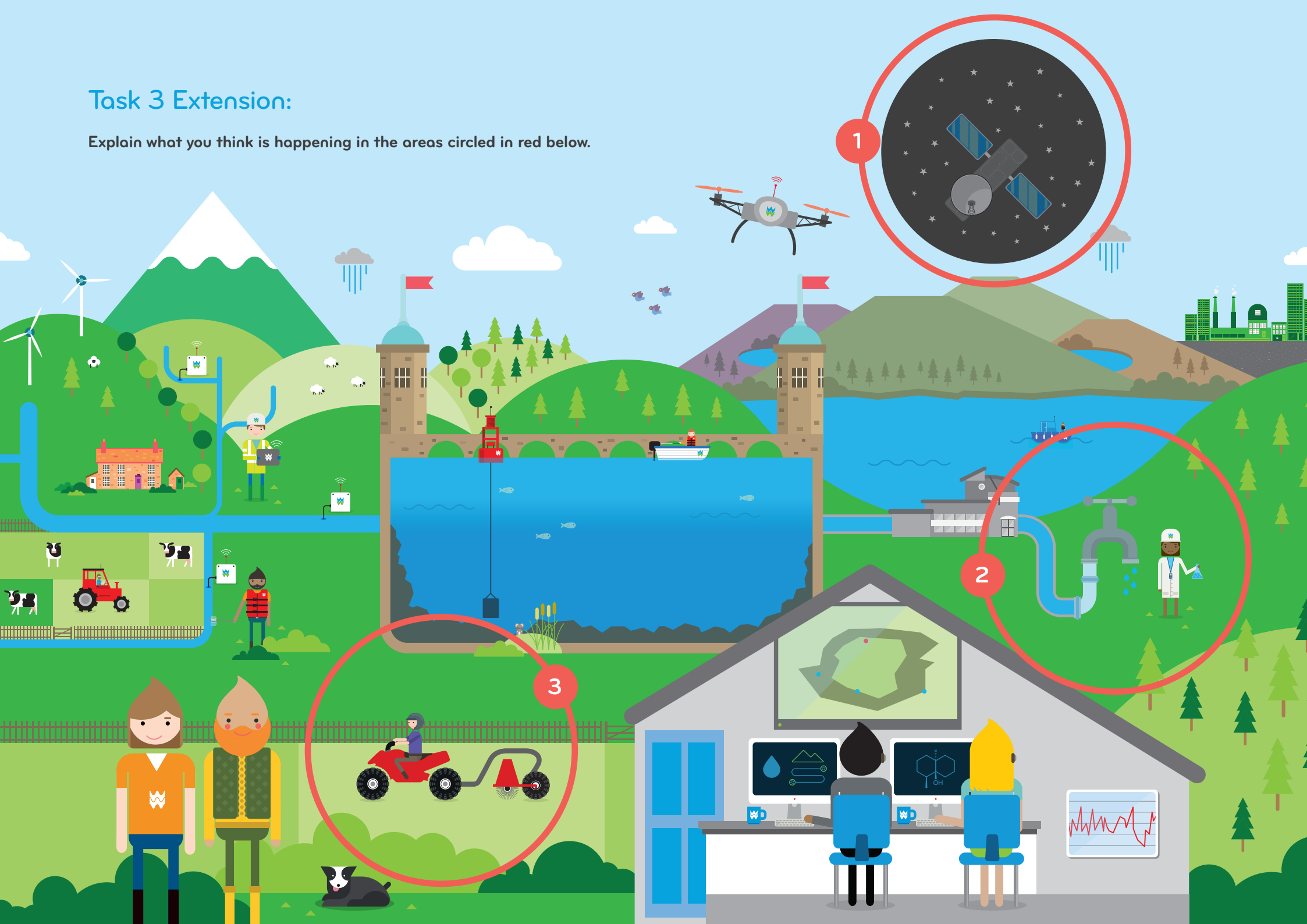
Task 3

Show you understand the things that affect the quality of the water in rivers and reservoir by colouring in this picture. Label the image – write what you see! Once complete, cut and glue it into your exercise books.



Task 3 Extension:

Explain what you think is happening in the areas circled in red below.



Number	Explanation
1	
2	
3	

What are water catchments?

A catchment is an area where water that is collected will naturally drain into the river system. There are a few of them in Wales!

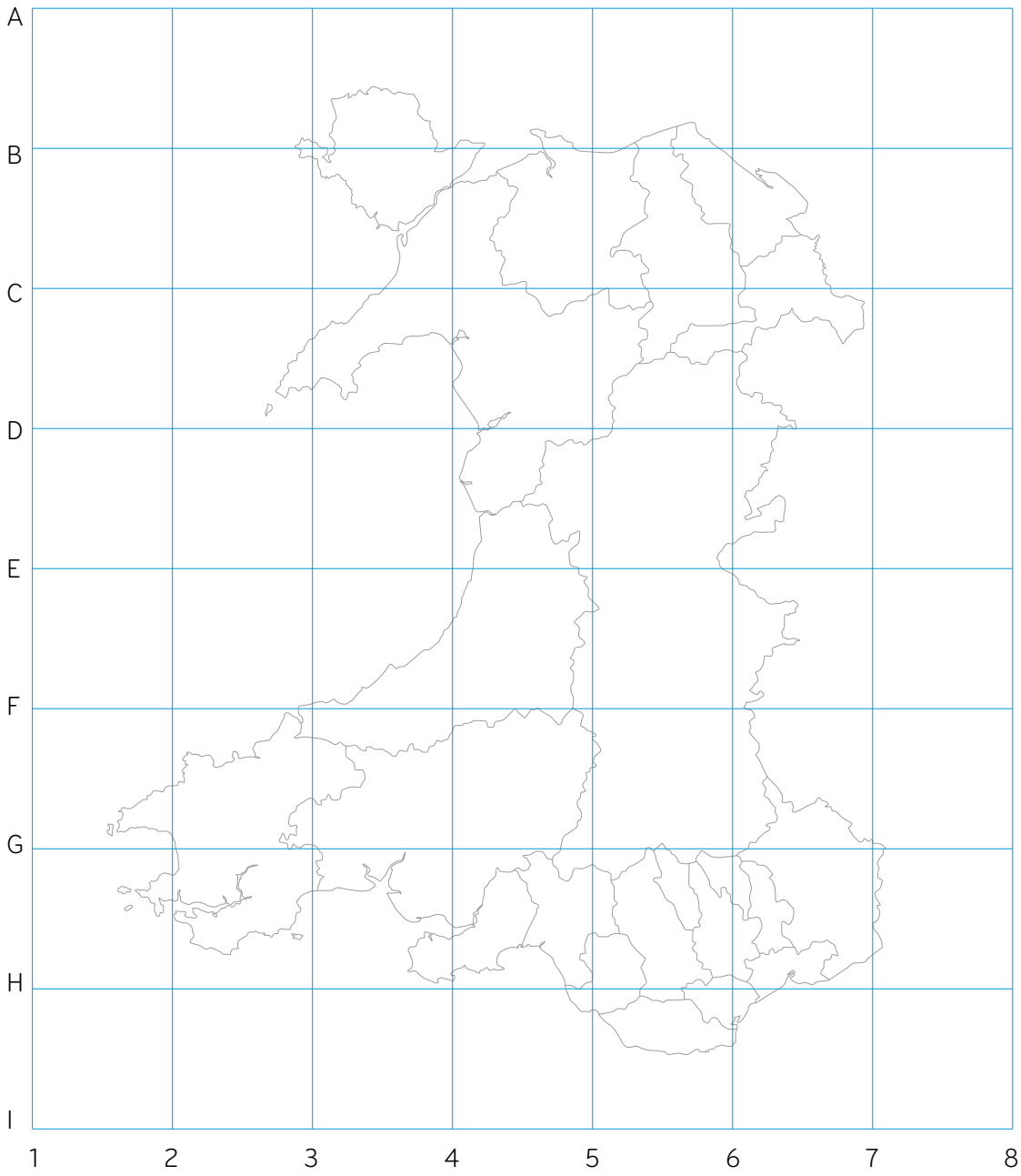
Task 1

Research the rivers that run through Wales, drawing them from source to sea as accurately as you can.

Task 2

Once you have researched and plotted each the journey of each river, record their grid references below.

River	Grid Reference(s)
Dee	
Severn	
Wye	
Teifi	
Tywi	
Usk	



Reflection

Think about the new skills and facts that you have learnt through the activities in this unit and record as many as possible in the water droplets.