



Geography

Lesson 2

Write the date and learning in your geography books.

L: What threats do rivers face?

Success Criteria:

- Understand about the threats to rivers
- Compare the Colorado River and the River Severn
- Investigate ways that we can look after rivers



Why are we learning this?

Our big question continues this half-term:

‘Even the weariest river
winds somewhere safe
to sea...’

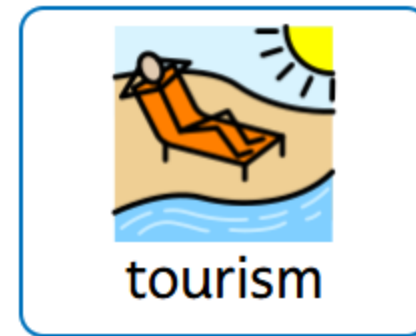
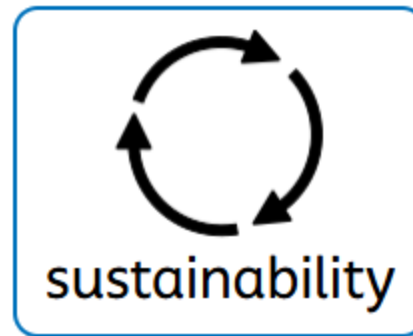
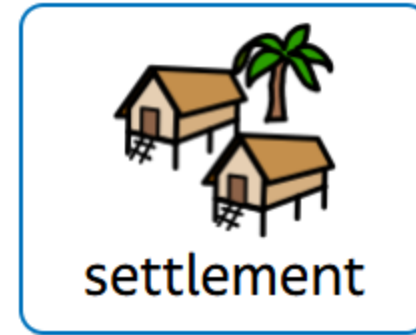
(A.C.Swinburne, poet)

What is the journey of a
river?



Key geography vocabulary for today

pollution
settlement
land use
environment
sustainability
tourism



- Respect
- Pride
- Inclusion
- Challenge
- Creativity
- Resilience

What threats do rivers face?

Talk to your partners and come up with a bullet point list.
Write it in your books.

Threats

- rubbish being dumped

Threats (Purple pen)

- rubbish being dumped there
- over-use of the water so it runs out
- chemical pollution from farms and factories
- pollution from tourism – too busy
- drought
- wasting water
- sewage being released into the rivers
- threats to wildlife (plants and animals) that should be on the river
- pollution from landfill sites
- pollution from chemical household cleaners
- flooding

The Colorado River in North America

Let's read about this amazing but threatened river.

A River in North America

Along the Colorado

The Colorado River is one of the longest rivers in the United States. Its source is a lake high in the Rocky Mountains. It winds its way through seven states (five in America and two in Mexico) on its way to the sea.

Fact Sheet: The Colorado River
Source: La Poudre Pass Lake, Rocky Mountains
Length: 2330 km (1450 miles)
Mouth: Gulf of California, Mexico
Main tributaries: San Juan (Colorado), Green River (Utah), Gila River (Arizona)

CONIFEROUS FOREST
Location: The Rocky Mountains, Colorado and Utah.
Climate: Temperate, which means 'mild' — it's not too hot but winter is cold. The forests get rain all year round.
Plants: Coniferous trees like pines and spruces (Christmas trees).
Animals: deer, elk, black bears, cougars

TEMPERATE GRASSLAND
Location: Colorado and California.
Climate: Temperate grasslands have cold winters and hot summers. They get 50-90 cm of rainfall a year — not enough rain for a forest to grow, but too much to form a desert.
Plants: Tall grasses and very few trees.
Animals: bison, prairie dogs, coyotes, hawks, owls

DESERT
Location: Utah, Nevada, Arizona, California, Northwestern Mexico.
Climate: Deserts are hot and dry. There is less than 25 cm of rainfall per year.
Plants: Few plants — those that grow have long roots to reach deep underground for water. Some plants like cacti store water in their bodies.
Animals: jaguars, tarantulas, scorpions, vultures

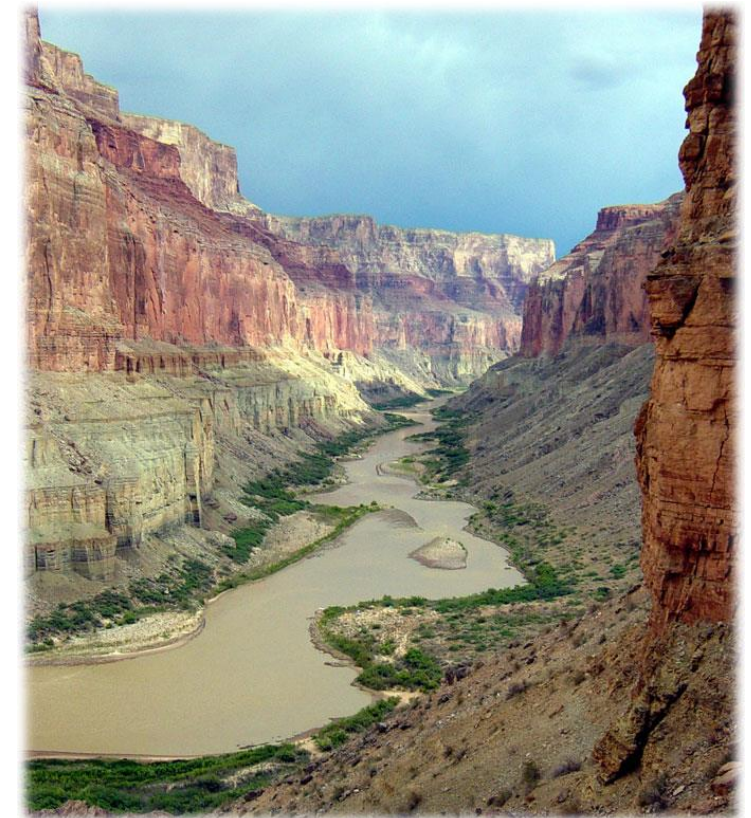
Which state do you think uses the most water from the river? Why?

The river was named from the Spanish for 'coloured red'. Red sandstone in the water can make the river look red.

The drainage basin of the Colorado (shown in dark green on the map) covers an area of about 637 000 km² — that's nearly the size of France!

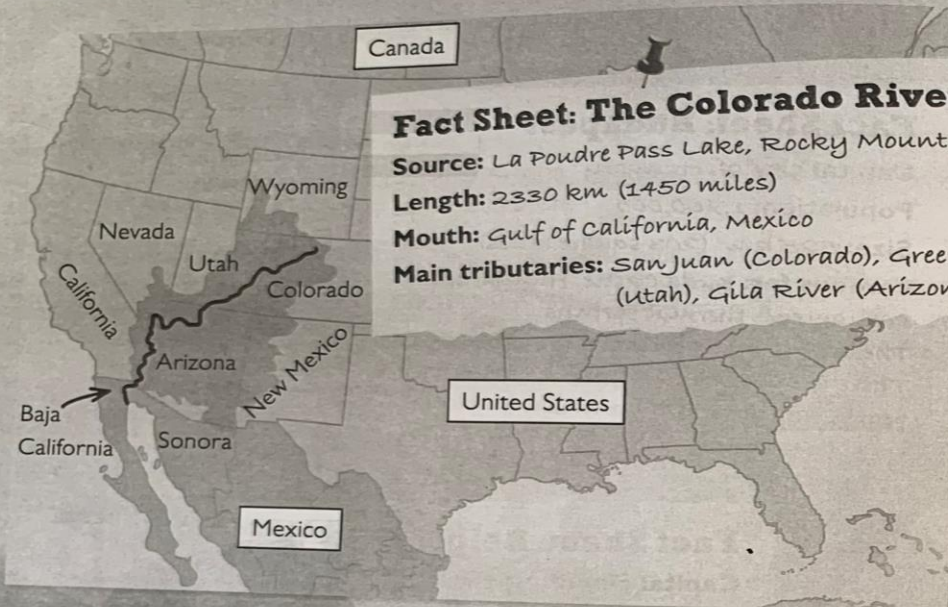
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Worlds apart

The Colorado is so long that it passes through completely different climates and landscapes on its way to the sea. These different environments are called biomes. Each biome is home to certain types of plants and animals. The Colorado River passes through three major biomes — coniferous forest, temperate grassland and desert.

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Black Bear

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Water Wars

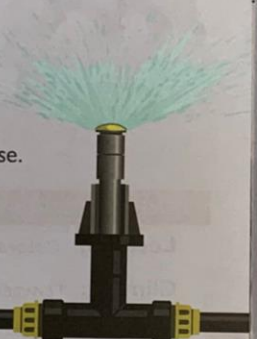
As mighty as the Colorado River is, these days its water usually doesn't reach the river's natural end at the sea. A lot of the water is used up by farmers watering crops, and people using it in their homes.

Every year, more water is taken out of the Colorado than the rain and snow can put back into it. That means the water use is unsustainable — it will eventually run out if people keep using as much water as they are now.

Where does the water go?

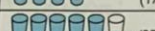
The Colorado provides water to 33 million people in the United States (US), and 3 million in Mexico. Every drop of water is accounted for — the seven US states that use the river have all agreed on the amount of water each state is allowed to use.

Most of the water is used for agriculture (farming). The rest is used by people for things like drinking, bathing, cleaning, cooking and watering the lawn.



WHO GETS WHAT?

US  (91%)
Mexico  (9%)

US State	Share of water
Wyoming	 (6%)
Utah	 (10%)
Colorado	 (24%)
New Mexico	 (5%)
Nevada	 (2%)
Arizona	 (17%)
California	 (27%)

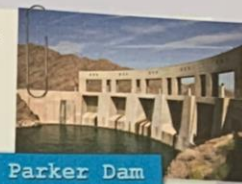


Do you think the Colorado's water has been shared fairly? Why or why not?

Slowing the flow

There have been lots of dams built along the Colorado to collect and control its water.

- Dams are very large barriers that are built along rivers to control the flow of water so less water is wasted.
- The water collects behind a dam in a reservoir — a man-made lake that's used as the water supply for farms, homes and businesses.
- Some dams use the powerful flow of the river to generate electricity. The electricity can then be used to power people's homes.
- Dams are useful but they can be bad for the environment. Changing the flow of the river has destroyed the homes of a lot of wildlife on the Colorado.



Parker Dam

Conflict on the Colorado

Sharing the water in the Colorado River hasn't been easy. Arizona wasn't happy with plans to build Parker Dam in 1934 — they thought California would use it to steal extra water! Arizona even sent out the national guard to try to stop the dam being built.

WATER WASTING WOES

The Colorado River has been in a drought since about 2000. 'Use It Or Lose It' laws were written to make sure everyone gets enough water. The laws say that if a city or farm doesn't use their share of the water, they'll get less water in the future. This makes some people waste water on purpose so that their allowance doesn't go down. This means there's not always enough water for people who actually need it.

Can you think of some ways that people can try to save water?

The Colorado's water level has dropped a lot in recent years. These white 'bathtub rings' at Hoover Dam show just how far.

It's not all so serious...

The way the water in the Colorado is used is a pretty serious business, but this river also creates a lot of ways for people to have fun, too. You'll see how on the next page.

What are the different threats of our two rivers, the Colorado River and the River Severn?

Use the sheet to find out:

Use the internet to find out:

Colorado River	River Severn

What did we learn today?

What helped you to learn about how to protect rivers?

- Respect
- Pride
- Inclusion
- Challenge
- Creativity
- Resilience

