



Geography

Raging Rivers

Erosion and Deposition

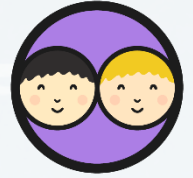
Aim

- I can describe the key features of a river system.
- I can use atlases and maps to identify the key features of a river system.

Success Criteria

- I can describe how water erodes a river bank.
- I can describe how deposition changes the shape of a river.
- I can tell you how meanders form.
- I can tell you how an oxbow lake forms.
- I can describe how waterfalls are formed.
- I can identify meanders on a map and photograph.
- I can identify oxbow lakes on a map and photograph.

What Can You Remember?



Questions

What part of a river's course is shown?

What features can you see?

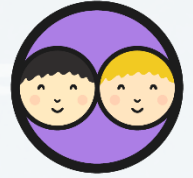
How would you describe the river?

- Speed
- Features
- Valley shape
- Channel width



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What Can You Remember?



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Erosion and Deposition

Why don't rivers travel in straight lines?

- They have to avoid obstacles as they flow downhill.
- People have altered river courses over time.

Erosion and deposition can change the shape of a river.

- What do you think erosion and deposition are?



Meanders

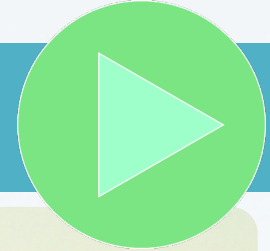


Press the play button to watch this video which explains how meanders form.



Photo courtesy of MindsEye_PJ (@flickr.com) - granted under creative commons licence - attribution

Oxbow Lakes



Watch this video which shows what happens to meanders over time:

- As meanders grow, sometimes the water can erode away so much of the river's banks that two meanders will merge together.
- When this happens, the water will take this newer, shorter route and not travel around the previous course.
- Over time, deposition of the river's load will block off the old part of the river, and an oxbow lake will form.



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Oxbow Lakes



- The map and aerial photograph show the same part of the River Trent.
- Can you see the oxbow lake?
- As the river no longer supplies the lake with water, it is not shown on the map.

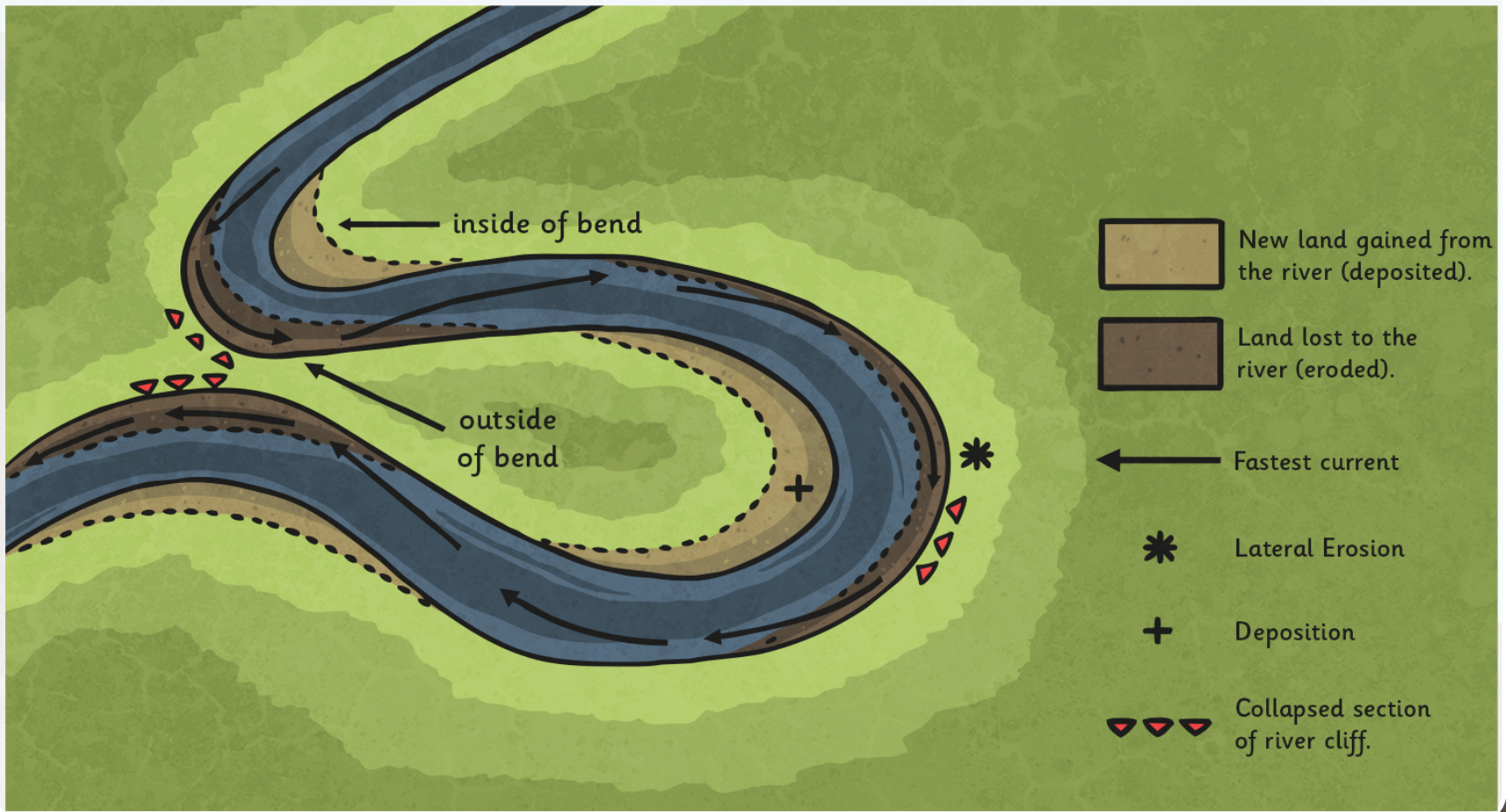


Maps courtesy of Map data ©2015 Google

Let's Make it Real



What happened: on the inside of the curve? On the outside of the curve?

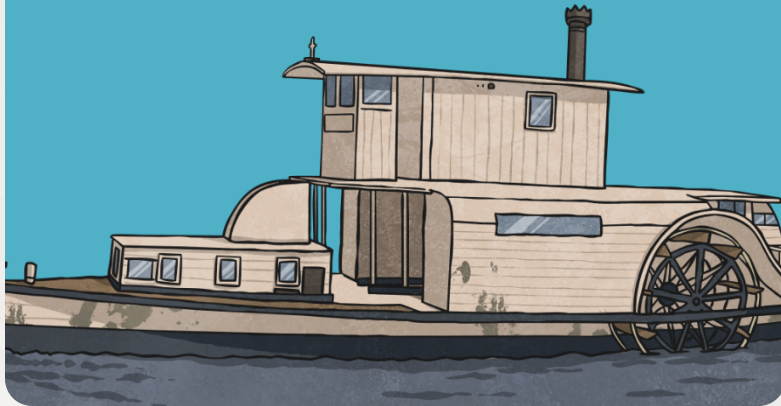


How Rivers Change Shape

Activity

Label your river diagram to show where erosion and deposition occur on the river.

Challenge: Can you annotate the maps to show where meanders and oxbow lakes are formed?



How Rivers Change Shape

1. Create a key to show where erosion and deposition occur in the river below. 2. Can you identify and label the meanders on this river system? Then, match the explanations to the points identified.

	Erosion
	Deposition

The river flows more quickly

How Rivers Change Shape

1. Create a key to show where erosion and deposition occur in the river below. 2. Can you identify and label the meanders on this river system? Explain what is happening to the river at point A and B.

	Erosion
	Deposition

A

B

How Rivers Change Shape

1. Create a key to show where erosion and deposition occur in the river below. 2. Can you identify and label the meanders and oxbow lakes on this river system? Explain what is happening to the river at point A, B and C.

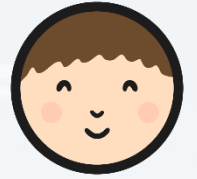
	Erosion
	Deposition

A

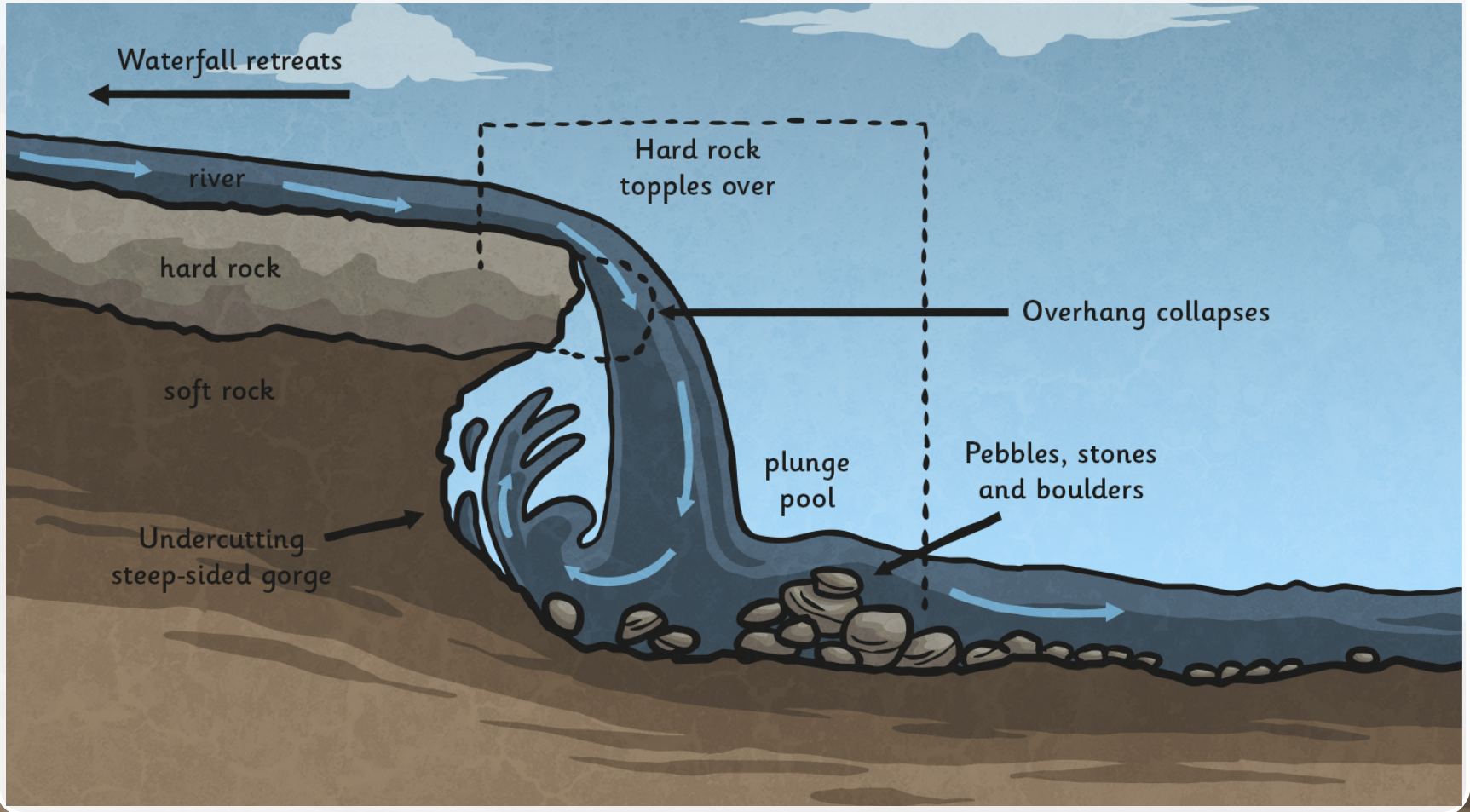
B

C

Waterfalls



What would happen to the shape of this waterfall over time?



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