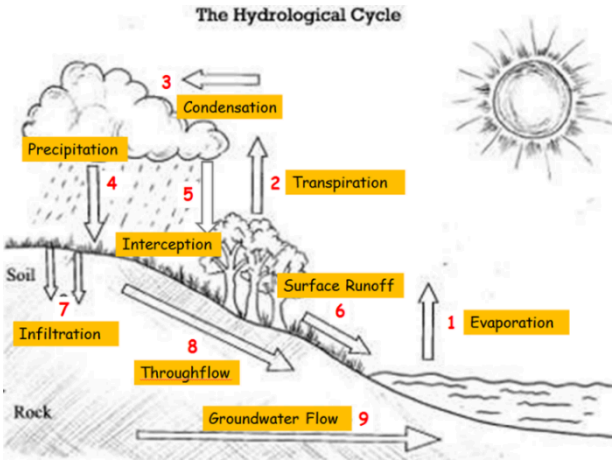
Name: Teacher:

Year 8 Rivers Booklet

The Hydrological Cycle



Complete the gaps writing the key term of definition

Key term	Definition
	Any form of water falling form the sky.
Surface run off	
	When water is blocked by vegetation from reaching the surface.
Evaporation	
	When water is absorbed into the soil
	Water that flows laterally beneath the surface in the soil.
Source	
Mouth	
	A smaller river channel that joins the main river channel.
Meander	

	Material carried in river is put down.

River Profile

The profile of the river changes significantly has it moves downstream. A river consists of the upper, middle and lower course.

For each statement, say if it is true or false.

Rewrite and correct the statements that are false.

1) The river gets wider as it moves downstream.
2) The velocity of a river decreases as you move downstream.
3) The river gets deeper as it moves downstream.
4) The gradient of the river in the upper course is flatter than in the lower course.

Processes in the river:

Name 2 ways that material is transported in the river.

1)_____

2)_____

What transportation process will carry large boulders/rocks?

_____

Upper course features of a river

Describe the characteristics of the river in the **upper course**. Consider the shape and size of the river channel and the landscape around the river. Eg. The valley is steep.

_____

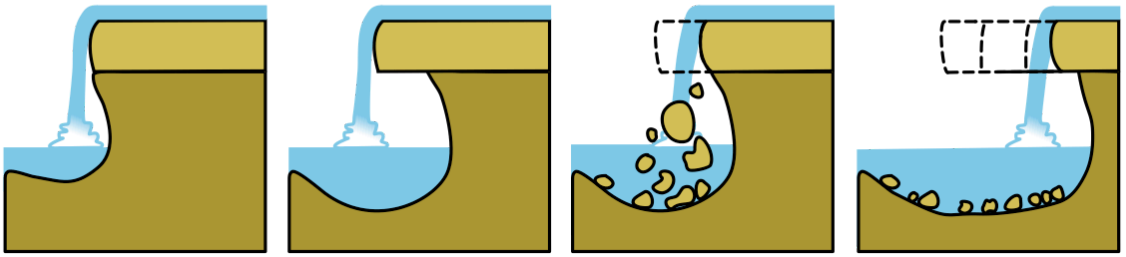
_____

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The formation of a waterfall

The formation of a waterfall



Write a number next to each statement, to order them and explain the formation of a waterfall. The first one has been done for you.

There are two layers of hard and soft rock.	1
This creates an overhang.	
The rocks from the collapsing overhang start to erode (abrasion and hydraulic action) the base of the waterfall creating a plunge pool at the bottom.	
The water flows over the layers of rock and the soft rock is eroded more quickly undercutting the hard rock.	
The overhang eventually collapses due to the weight of the water flowing over the overhang.	
Over time the plunge pool becomes wider and deeper as a result of abrasion and hydraulic action.	
Finally the waterfall retreats backwards upstream creating a gorge.	

Middle course of a river

How is the middle course of a river different to the upper course? Consider the shape of river channel and the landscape around river (gradient and landforms found)

_____

_____

_____

_____

What is a meander?

_____



a) Draw the path of the fastest current onto the image.

b) Annotate the following key terms on image:

River cliff

Slip off slope

Deposition

Erosion

Causes of Flooding

- Urbanisation,
- Impermeable rock,
- Steep slopes,
- Saturated (very wet) soil
- Deforestation

Explain how **two** of these causes will lead to flooding.

1) _____
_____
_____

2) _____
_____
_____

Where has flooding happened?

You should research a flood event that has happened anywhere in the world within the past 5 years and complete the table with information.

Name of flood event:

Location:

Causes (why did it happen)	Effects (How were people and environment impacted by flood?)	Responses (What did people do during and after flood?)

Flood Defences

Task - Below are some flood management strategies to reduce/prevent river flood. For each strategy, **colour code** whether it is a hard engineering or soft engineering method.

Levees	Channel straightening	Sandbags
Afforestation	Dams and reservoirs	River dredging (widening and deepening channel)

What is hard engineering?

_____

_____

What is the difference between hard and soft engineering?

_____

_____

_____

Explain how **one** flood defence (of your choice) reduces/prevents flooding.

_____

_____

_____

_____

Which flood defence method do you think is the most effective? Explain why.

_____

_____

_____

_____



Above is a dam and reservoir. Using the image to help you, give:

1 advantage of dams for flood management.

_____

_____

1 disadvantage of dams as a flood management technique.

_____

_____