

GRADE 5 LEARNING PACK

River Systems, Flood Risk & Land Use

Model how catchments, land cover and human choices can influence runoff and flood risk.

LEARN • PRACTISE • CREATE • REFLECT

Original BrightPencil Kids resource - adult-led where appropriate

A4 edition • 12 purposeful pages • review copy

Print. Learn. Grow.

Grown-up guide

Learning objective

Model how catchments, land cover and human choices can influence runoff and flood risk.

Use this pack well

- Model the first example aloud, then let the learner try.
- Ask “How do you know?” more often than “Are you finished?”.
- Use real objects, talk, movement or observation when the activity suggests it.
- Stop or shorten the session if attention or enjoyment drops.
- Open-ended pages can have many successful answers.

Quality note

This resource was written originally for BrightPencil Kids. Curriculum sources informed scope and progression only; no third-party worksheet or story text is reproduced.

Learn the idea

1 Water within a catchment drains toward connected channels and outlets.

2 Surface type, slope and vegetation can influence runoff.

3 Flood risk is shaped by interacting natural and human factors, so single-cause explanations are often weak.

Talk about it

Explain one idea in your own words. Give an example from real life, a drawing or an object if that helps.

Build a clear model or organiser that shows: Water within a catchment drains toward connected channels and outlets.

Use supplied evidence to test this idea: Surface type, slope and vegetation can influence runoff.

Compare two cases and explain where this principle matters: Flood risk is shaped by interacting natural and human factors, so single-cause explanations are often weak.

Find one weak claim or assumption and revise it so it matches the evidence.

Write a short conclusion that states evidence, limitation and next question.

Try it beyond the page

Real-world / hands-on connection

Trace a river catchment on a trusted public map with an adult.

Before you finish

What did you notice?

What evidence, object or example helped you?

What would you change if you tried again?

Create something

Your project

Design a fictional catchment with housing, wetland, farming and flood-management choices.

Use this space for planning, drawing, mapping, designing or notes.

CHALLENGE

Think deeper

1. What is a catchment?

2. Does paving always cause flooding by itself?

3. Why protect some floodplain space?

Quick review

1. In one sentence, explain the big idea of “River Systems, Flood Risk & Land Use”.

2. Draw or write one example that shows you understand.

3. Choose one activity from this pack and explain the strategy you used.

4. Write one question you still have.

Answer & discussion notes

Use these as guidance, not scripts. Open questions can have different successful responses when the reasoning is sensible and evidence-based.

1. Suggested response

An area where water drains toward a shared river, lake or outlet.

2. Suggested response

No; flood risk depends on interacting factors.

3. Suggested response

It can provide room for water and reduce exposure of buildings.

Review before publication

Check age fit, factual accuracy, clarity, accessibility, rights provenance and whether the activity works in practice. This file remains a review copy until those checks are signed off.

FINISH

My learning reflection

I finished this BrightPencil learning pack.

One thing I understand better now:

A strategy that helped me:

Something I created or noticed:

My next small question or goal:

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