

GRADE 3 LEARNING PACK

Electricity: Circuits, Conductors & Safety

Build conceptual understanding of complete low-voltage circuits and test simple conductors safely.

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

Build conceptual understanding of complete low-voltage circuits and test simple conductors safely.

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 A complete circuit needs a continuous conducting path.

2 Some materials conduct electricity better than others.

3 Mains electricity is dangerous and never part of child experimentation.

Talk about it

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

Identify battery/cell, bulb, wire and switch in a diagram.

Predict whether a circuit with a gap works.

Classify safe classroom test materials as likely conductor/insulator then verify using approved low-voltage kit.

Explain why metal objects must never be inserted into wall sockets.

Draw a circuit with a closed switch.

Try it beyond the page

Real-world / hands-on connection

Use only teacher/adult-approved low-voltage circuit kits and dry hands/work areas.

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 “conductivity tester” plan that clearly states safety boundaries and what will be recorded.

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

CHALLENGE

Think deeper

1. What is needed for current to flow in a simple circuit?

2. Are wall sockets safe for experiments?

3. Why test materials one at a time?

Quick review

1. In one sentence, explain the big idea of “Electricity: Circuits, Conductors & Safety”.

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

A complete conducting path.

2. Suggested response

No.

3. Suggested response

For a clear comparison.

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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