

That materials can be changed physically without changing their material...

recognise that materials can be changed physically without changing their material composition and explore the effect of different actions on materials including bending, twisting, stretching and breaking into smaller pieces

Learning intention

- recognise that materials can be changed physically without changing their material composition and explore the effect of different actions on materials including...

Teach and model

- exploring how materials can be physically changed to suit a particular purpose, such as twisting strands of cotton or wool together to make the thread stronger, or folding paper...
- manipulating materials such as paper or fabric, and determining ways they can be physically changed by scrunching, twisting or bending, or broken into smaller pieces by...
- crushing a stick of chalk into a powder, comparing the properties of the stick and the powder, and discussing whether it is still the same material

Check understanding

- Explain the main idea in that materials can be changed physically without changing their material... using an example.
- Show the idea in a second way: with words, a model, a diagram or symbols.
- Apply the idea to a short unfamiliar situation and justify the result.

Teaching cautions

- Ask the student to explain their choice, not only state an answer.
- Check that key vocabulary is understood in a new example.
- Mix representations so the skill is transferred rather than copied.

Quick lesson sequence

- Connect to prior knowledge and introduce the key vocabulary.
- Model one clear example, then solve a second example together.
- Finish with an independent check and a short student explanation.