

White light, many colours

Explain how a prism can separate light into colours.



Glass prism, switched-off optical lamp and projection screen in a physics classroom. · AI-generated illustration

White light contains different wavelengths. A glass prism refracts them by different amounts, making a spectrum visible. The image is an illustration, not a measurement record.

Now try it

1. Sketch the light source, prism and screen. Mark incoming and outgoing light.
2. Explain in your own words the difference between a beam of white light and its spectrum.

Fictional demo material. Adapt to the learners and the school's teaching before use.

physics · v1 · Prepared demo translation

Your notes and findings

Think it through

Does the prism create new colours?

See a suggested answer

No. It spatially separates the wavelengths already present in white light through different amounts of refraction.

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