

# Low-Cost Experiments in STEM Education



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## The Spectroscope

### Make your own spectroscope to study the light of the stars

#### Project description:

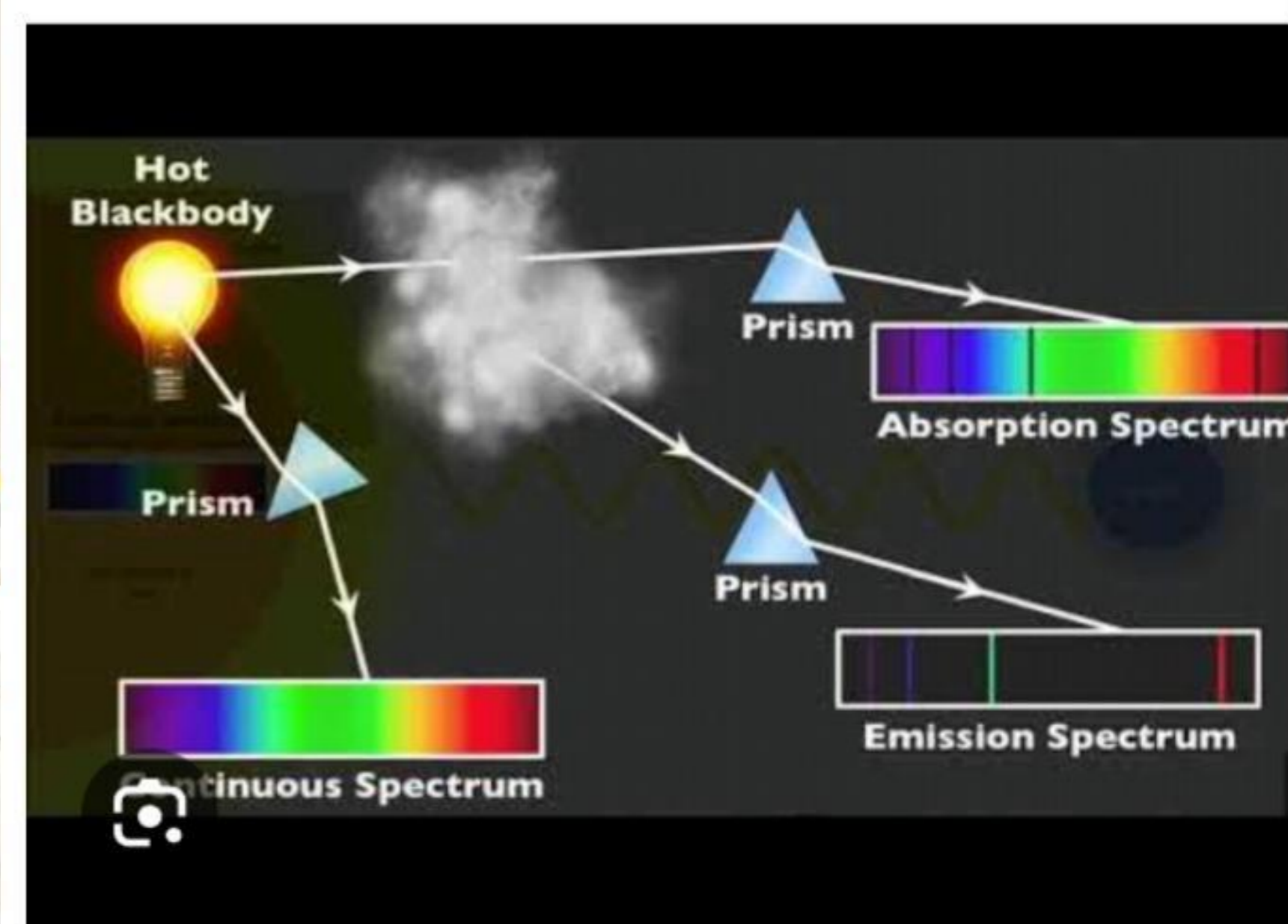
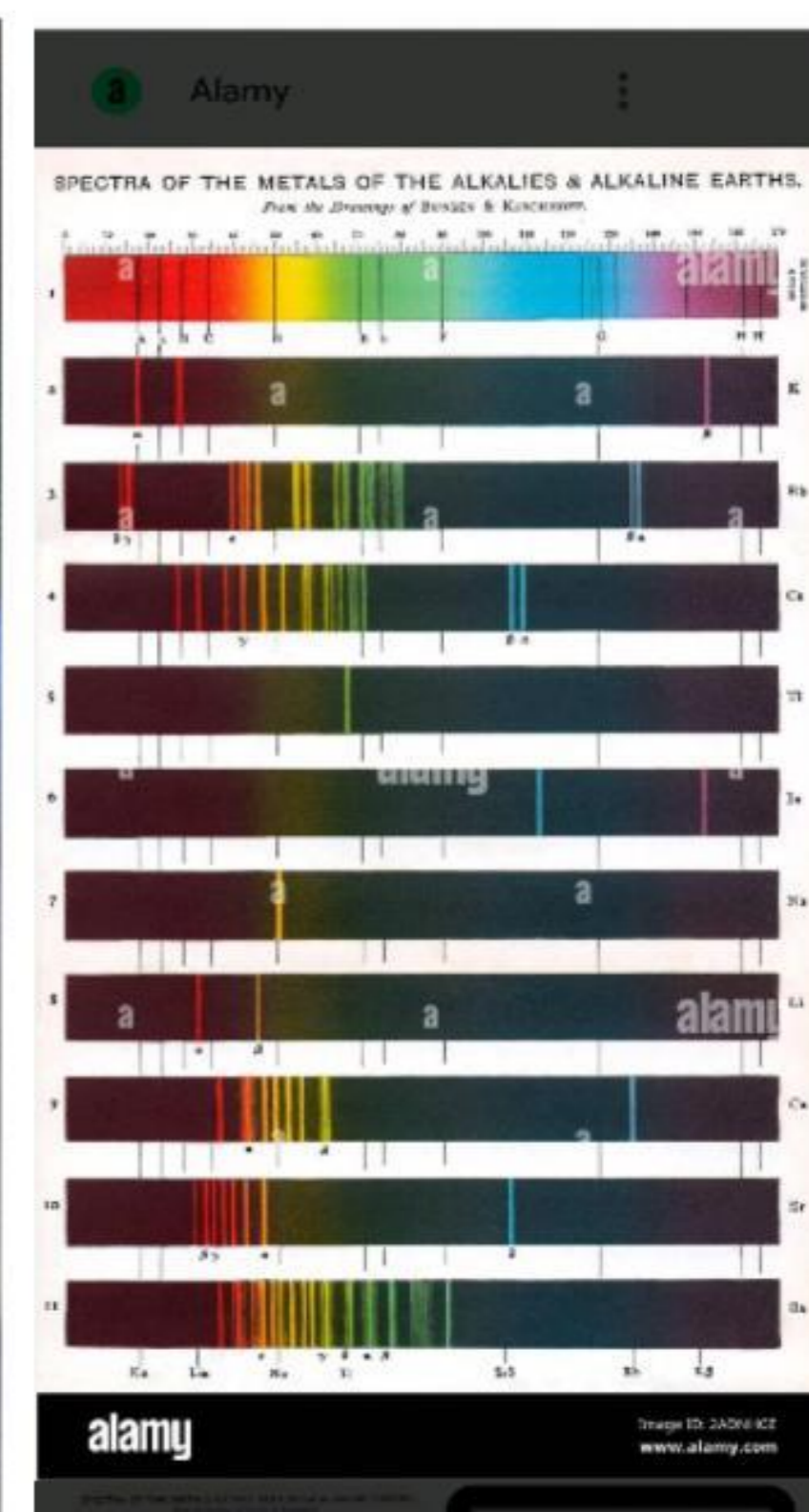
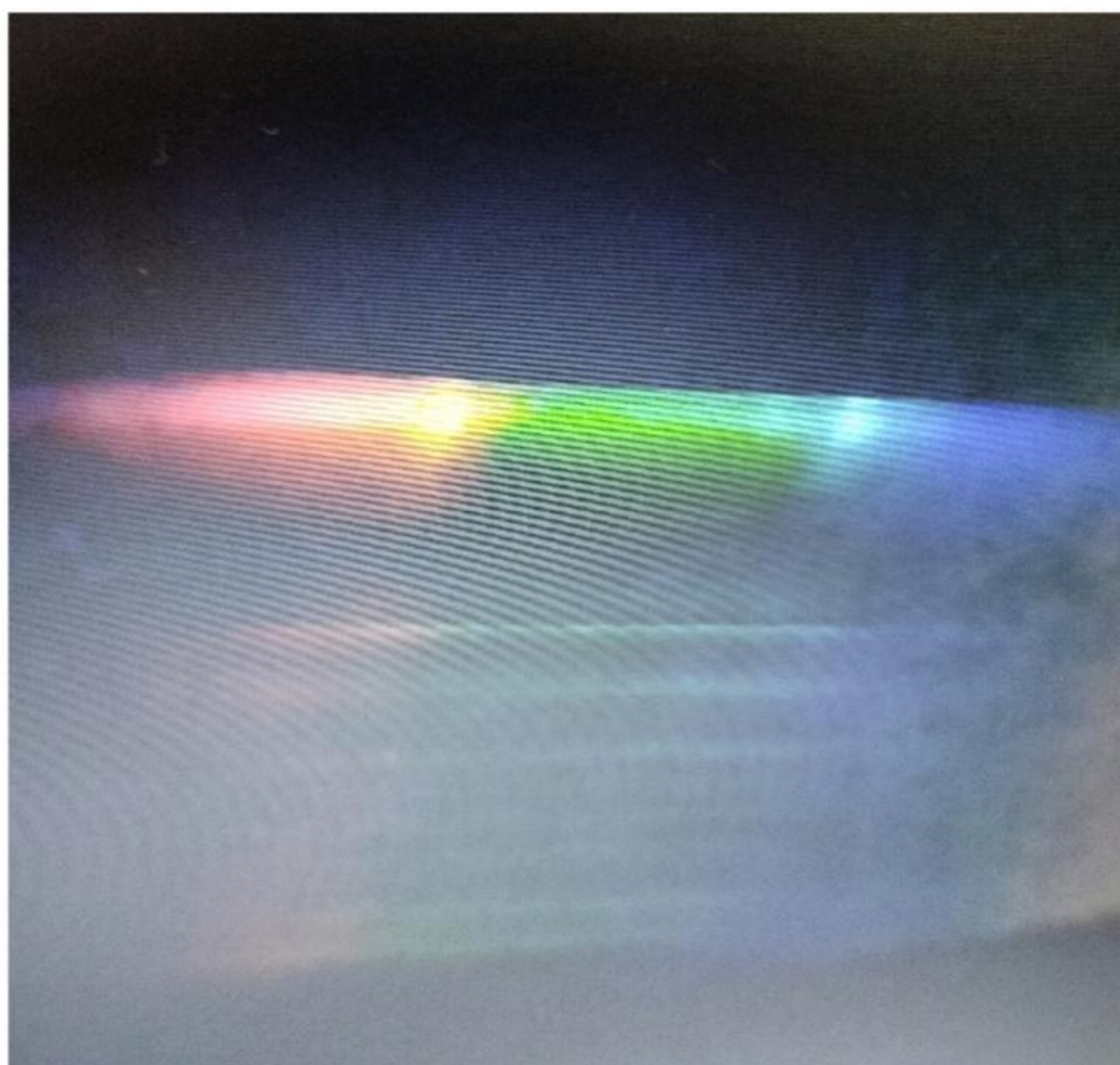
This is an instrument constructed by students with their own hands using very simple materials: a cardboard box and a piece of a CD/DVD

By passing the light of the sun through this instrument, the students will be able to visualize/observe the stellar spectrum .

#### How to use it:

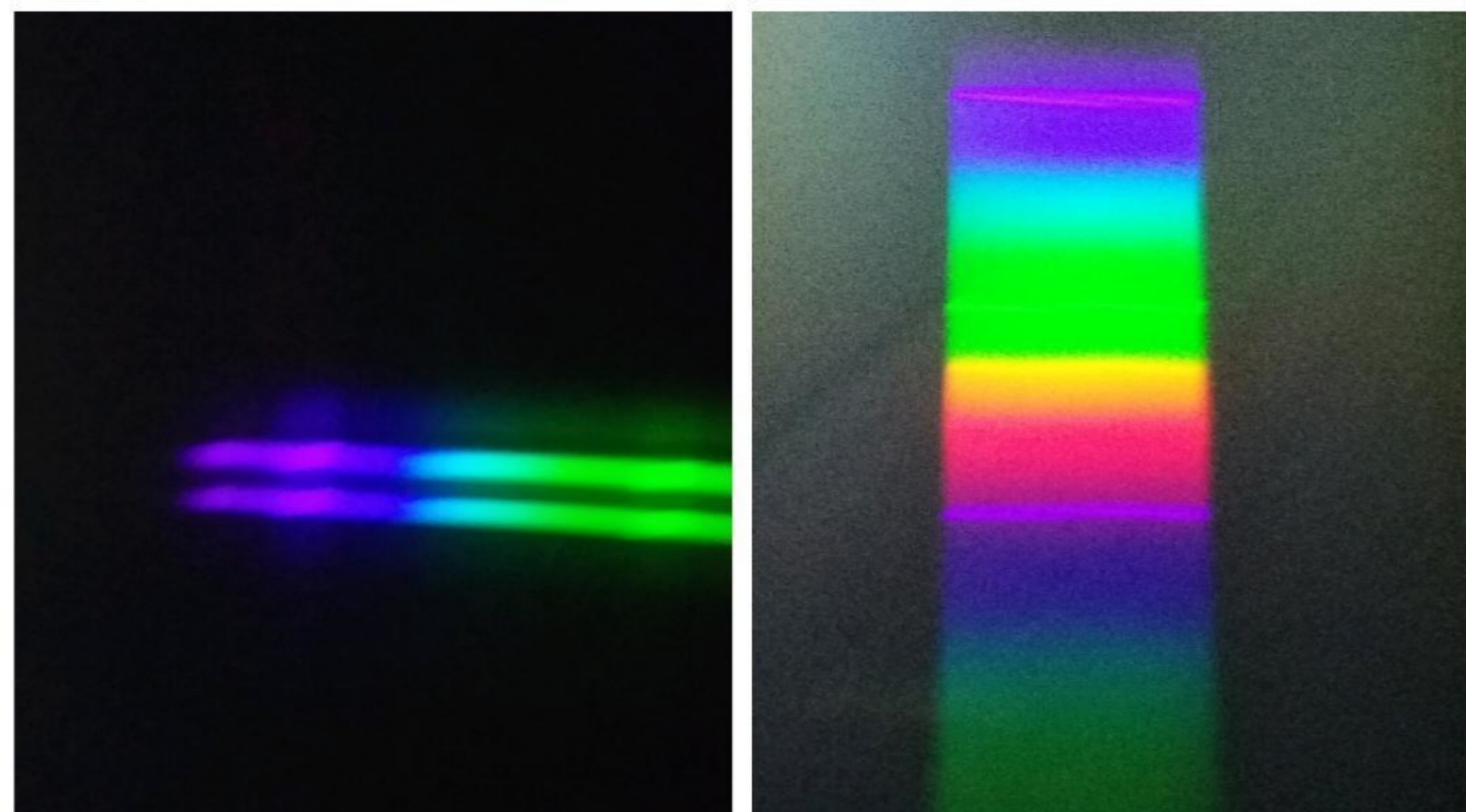
Orient the box so that the light falls into the open slit.

Through the viewing window the observer can see, inside the box, the light split into the colors of its specific spectrum.



Kirchhoff's Laws  
of Spectroscopy...

During this experiment the students can use different light sources to compare each spectrum . In this way , they can study Kirchhoff's Laws and recognize some chemical elements fingerprint .



**Conclusion:** This project helps students to connect different knowledges from chemistry, astronomy, physics and understand some applications in various fields of science or in real life .