

Spectroscopy Glasses (and more)

What's it all about?

Activities using the spectroscopy glasses, and other related things to do:

1. Let people wear the glasses!
2. Girl Guide Activities, including Make a Spectroscope

Objectives:

1. Light can be split into a spectrum
2. By studying the spectrum of light, you can learn things about its source

This activity is not expected to include any risks other than those given in the pro-forma General Display Stand / Webb Show risk assessments, and so a separate RA is not provided. But you should always consider whether any additional control measures are required for your particular context.

1. Let people wear the glasses!

The glasses are a good way to attract people to a stand, as they will see other people wearing them.

I suggest having only a small number of glasses out at one time. This reduces the risk of them being taken away or damaged. People will take more care of them if *you* treat them as though they are delicate/special. Also this will allow you to talk to small groups of people rather than having many others dropping in/out without understanding what they are seeing.

Things to try:

- Let people just look around because it's fun and trippy!
- Rather than telling people what the glasses do, invite people to look through them and then ask them to describe what they can see. Encourage them to look at different things, eg different light sources. This will naturally lead to a conversation about what the glasses are doing.
- Look at different types of light bulb / light sources in the room - they will give different spectra. If providing lit bulbs for this purpose, remember to risk assess especially for the risk of burns from incandescent bulbs.

2. Girl Guide Activities, including Make a Spectroscope

There is an (optional) activity in the new Girl Girls Space Badge where they can make a spectroscope from a cereal box and CD. This would be an excellent add-on.

There are many other nice space-related activities in this booklet too, although only a few of them can sensibly be related to Webb.

If you are visiting a girl guide group, it might be worth asking if they are doing any of these as part of their topic. Or you could offer to help them carry out these activities as part of your visit.

Activities that you may be able to relate to Webb include:

- Vitamin-C rockets (ref launching Webb)
- Constellation charts (ref objects of interest that it will look at)
- Talk like a space probe (Morse code activity related to sending data back to Earth)

Full details can be found at:

https://www.girlguiding.org.uk/globalassets/docs-and-resources/programme-and-activities/badges/gfi_space.pdf

AstroBoost Project

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