ADDITIONAL RESOURCES

ASTROBOOST

Webb on the Web: selected resources relating to Webb science

AstroBoost provides a selection of Powerpoint Slides to help you build your own presentation. In addition to this, you can find useful images in the following places:

- The Webb Campaign provide a selection of the most useful Webb images on their website at: https://webbtelescope.org/resource-gallery/images
- NASA's image collection is at: https://jwst.nasa.gov/content/multimedia/images.html

You'll need to check copyright. But almost all of these should be free to use, maybe just requiring a credit.

- The NASA website at: https://webbtelescope.org/ have a very cool animated slideshow landing page which would look great as an attractor on a drop-in stand.
- There are some great animations and time-lapse videos which could be useful to flesh out a talk or to play at a stand at: https://svs.gsfc.nasa.gov/Gallery/JWST.html

Photo: NASA/Chris Gunn;
Licence: https://creativecommons.org/licenses/by/2.0/

Hands-on Activities:

There are a variety of Webb resources available online, albeit of very variable quality. Here are some of the best:

- A template for making small, cut-out card mirror panels: https://www.jwst.nasa.gov/content/forEducators/ballActivity1.html
- A picture of Webb for young children to colour in: https://jwst.nasa.gov/education/D1899JWSTcoloringpage.pdf
- Print/make paper models of Webb (watch out some are quite challenging): https://www.jwst.nasa.gov/content/features/educational/paperModel/paperModel.html The website also has a gallery showing different ways that people have constructed models.
- There is a pack of activities relating to colour available in English and Welsh from https://www.stem.org.uk/resources/elibrary/resource/34400/colour-chaos Most of the activities are not relevant to Webb, although teachers (KS2-3) may be interested if they are planning wider work around the topic of colour.

  They also offer this way to make a spectrum:

  "Place a [small] mirror in a glass of water at an angle. Put this on the [sunny] windowsill and turn the glass so that the mirror is directly facing the Sun. Next, hold the paper at a slant in front of the glass. Move the paper around until you see the rainbow"

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Useful resources you could mention to teachers:

Words and pictures: Teachers planning for children to investigate practical uses of infrared light on Earth (e.g. by vets, geologists, or firefighters) might be interested in: https://coolcosmos.ipac.caltech.edu/infrared_world

Six minute video for KS2-3: a team of children learning about differences between infrared and night vision, and choosing an infrared camera to 'rescue' someone in a dark, smoke-filled building: https://www.bbc.co.uk/teach/class-clips-video/science-physics-ks2-ks3-seeing-through-smoke-the-heat-camera/z4pw2sg This could be a nice thing for the children to watch BEFORE you visited a school, to help them learn the basics and to get them interested to see and use the camera.

Big project: Teachers of children aged 14yr+ (yr8+) might be interested in the Institute for Research in Schools' Cosmic Mining project. The project is carried out over four weeks, during which the children carry out spectral analysis of Spitzer Space Telescope data to select potential targets for Webb, with the opportunity to present their research at an IRIS conference: https://researchinschools.org/projects/cosmic-mining/

AstroBoost

These resources are adapted from the Royal Astronomical Society's original AstroBoost project, which was funded by a STFC Spark Award. The project was managed and developed by Dr Jenny Shipway.