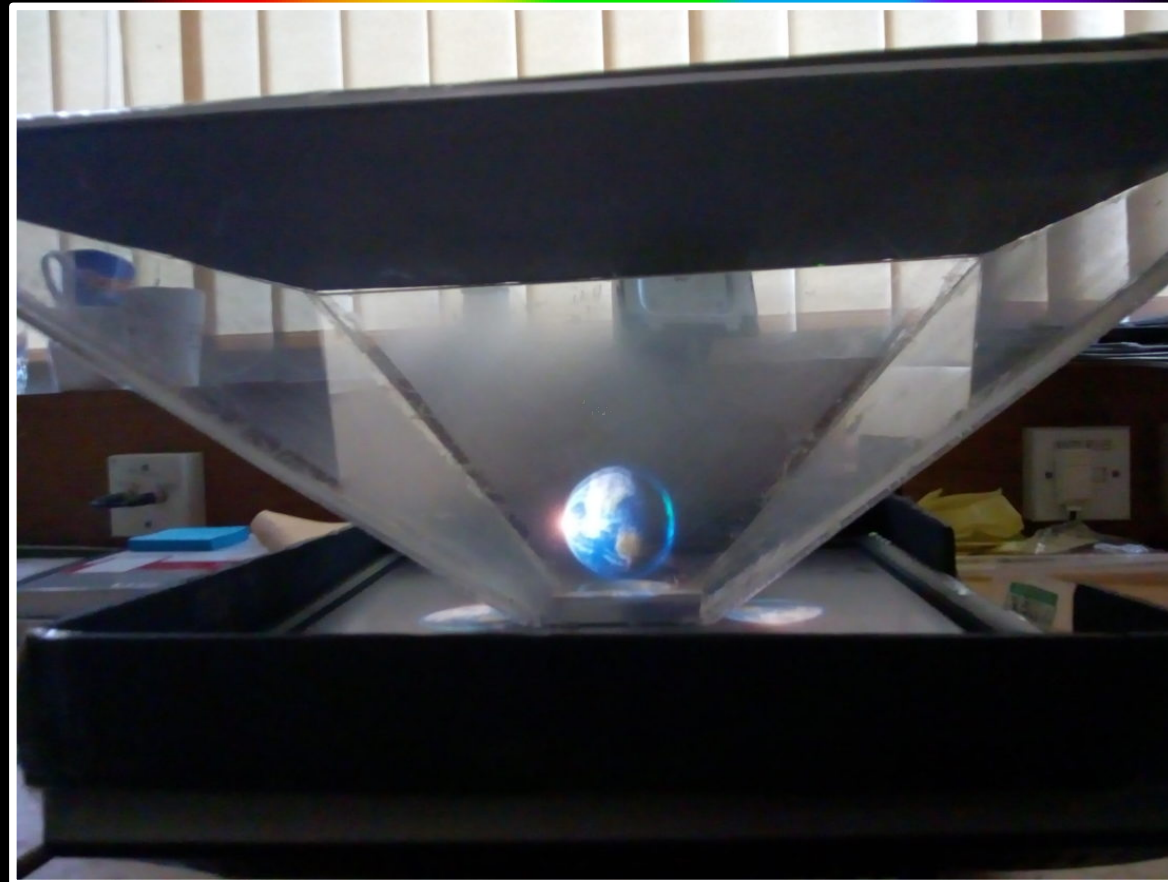


A HOLOtta Fun:

Using 3D Holograms for STEM Outreach



A Pandemic – Friendly Guide



What Are “3D” Holograms?

In a nutshell: A two century old illusion (with a modern twist) which tricks your brain into thinking the images you are seeing are 3D.

Holograms are created by placing a perspex pyramid on top of a screen which displays a specially formatted 2D video. The 2D images are then reflected off the surface of the perspex, making it appear as if the image is 3D and in the centre of the pyramid.

The videos are super easy and free to make - and can be made from any existing regular format videos or pictures you have to hand.

Tutorial detailing exactly how to make the special ‘hologram’ format videos

[HERE.](#)

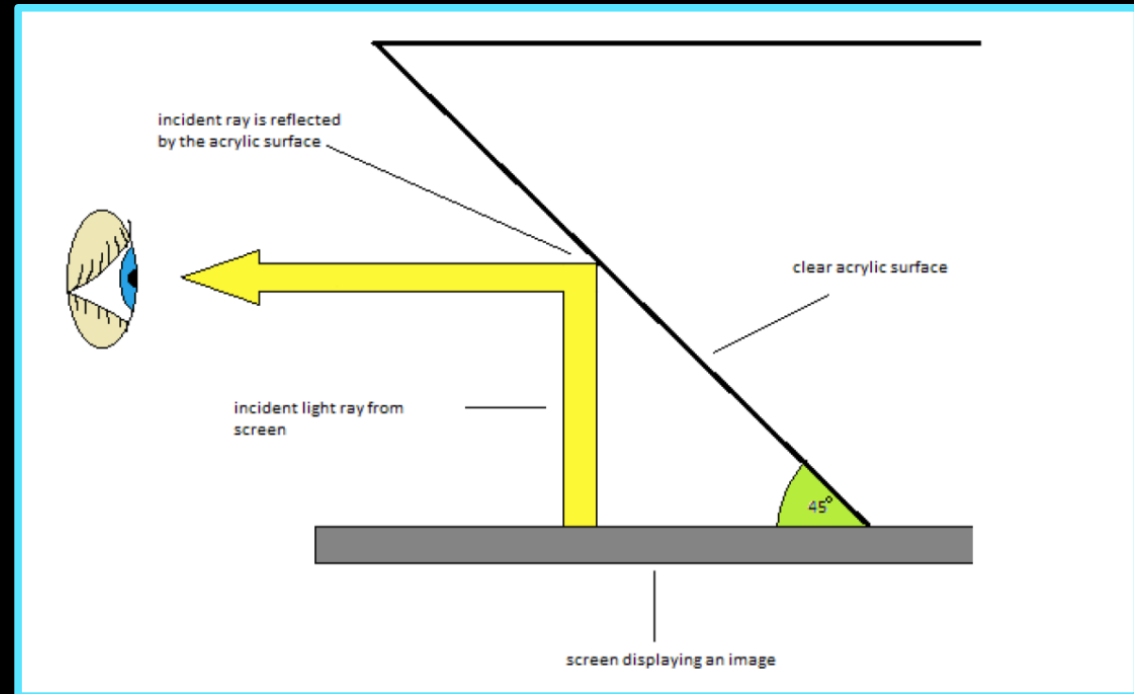


Figure 1: Diagram showing how the holograms are generated.

How were they used pre-pandemic?

Primarily the holograms were used as an outreach tool. Shown on a demonstration model which used a 65" screen, in-person workshops were delivered to KS3/4 students in West Yorkshire to tell the story of star formation.

As part of the workshop, students would make a personal take-home pyramid projector for use with a 5-11" screen (phone, tablet). Instead of perspex, acetate sheets were used to make these projectors. However, any clear plastic can be used including old CD and DVD cases.



Figure 2: Photo showing a hologram generated on the 65" screen demonstration model.

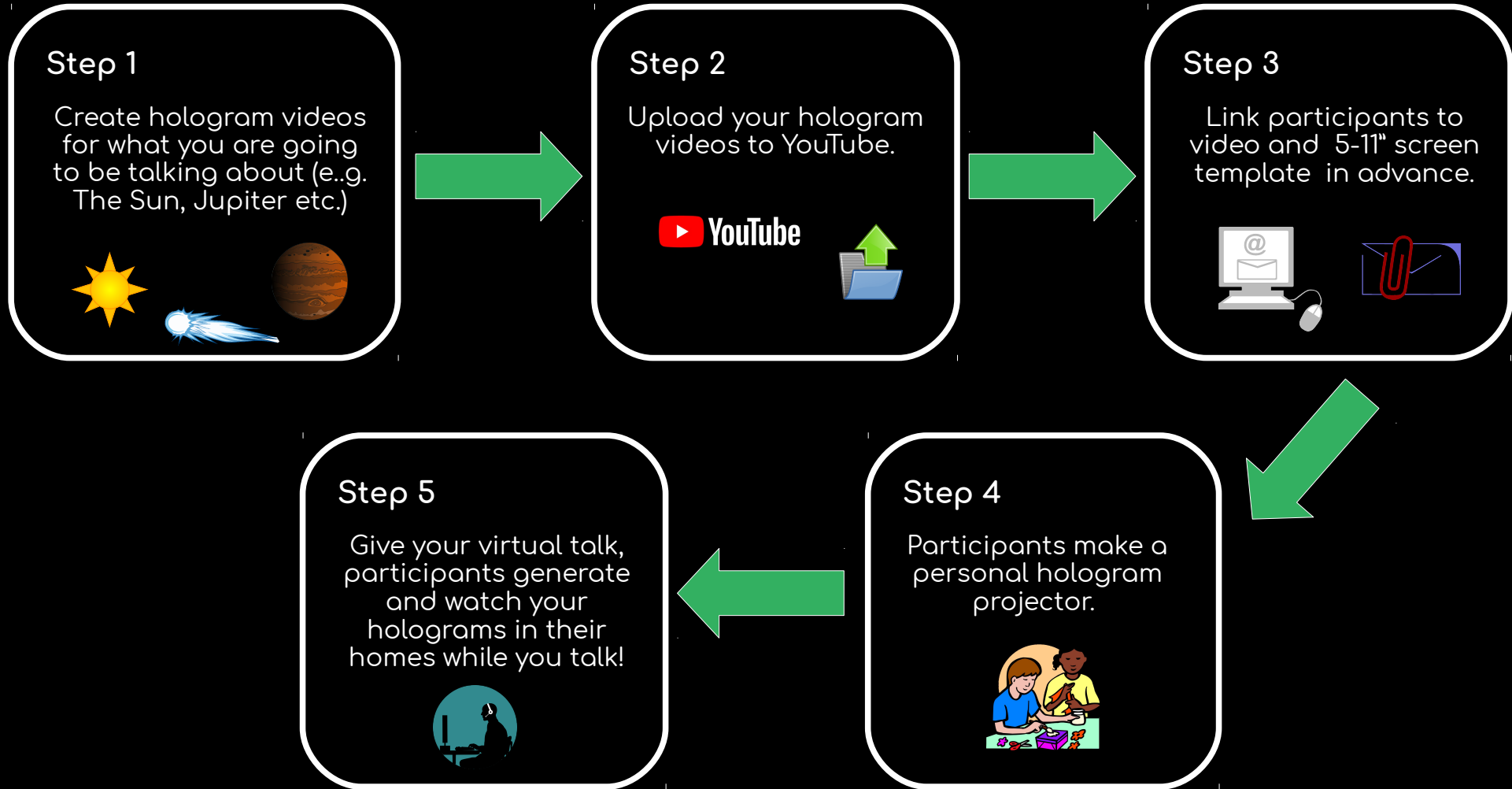


Figure 3: Photo of NAM2019 media [interview](#) with Anne Buckner (left) & Helen Klus (right).

A selection of artistic astronomical holograms were shown at a variety of conferences, festivals and exhibition style events – including NAM2019 – on a ‘travel’ sized 32" screen.

Download the 5-11" screen template for free [HERE](#).

How can I incorporate them in my virtual talks?



Got questions?
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