CANNON HALL
MUSEUM PARK & GARDENS

Summer Staycation Club!

Glorious Georgians

A day in the life of a Georgian child

6+

Georgian science: Rainbow experiment

Scientist Isaac Newton discovered that when you split up white light using a prism the light refracted into a rainbow. Other scientists at the time knew this but thought that the prism coloured the light. However, Newton proved that you could use another prism to turn the rainbow colours back to white light- proving that the colours are in the white light all the time and nothing to do with the prism at all!

Have a go at making up your own rainbow experiments just like Isaac Newton.

You will need:

A CD or DVD.
A jar of water
Two pieces of white paper
A bit of tape
A torch
Optional – food colouring, any colour except black
Pencil crayons

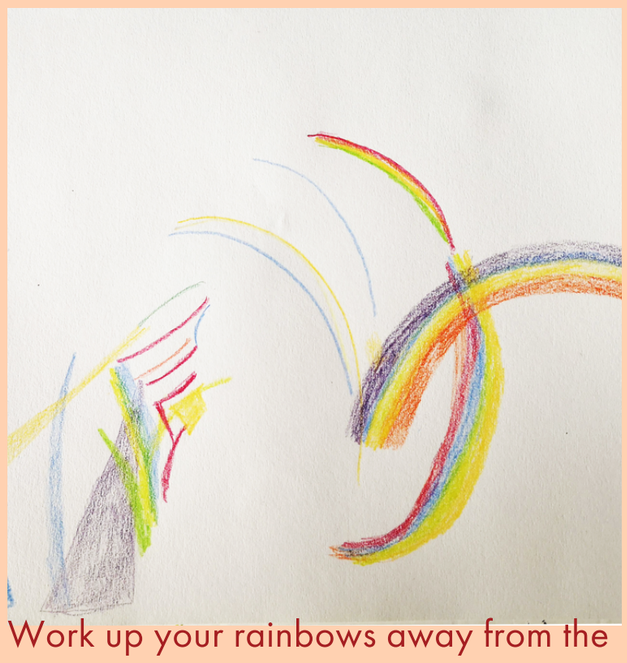
Stick one of the papers to a wall and put the other directly underneath. This is where the rainbows will project onto.

Hold the CD so the shiny side is facing the torch and shine the torch light onto it. Rainbows should appear. If you move the torch and the CD, you can see brighter rainbows and different shapes.

Put your jar of water in-between the CD and torch and see if you can see any different sorts of rainbows.

Experiment with putting some food colouring in the water, does it change the colour of the rainbow? Try changing the angle of the torch and CD too.

Choose your favourite way of creating a rainbow and look closely at the colours. See how they blend together and create different shapes? Use your pencil crayons to colour some of the shapes you see on the paper. You many need some help holding the torch and CD.



Work up your rainbows away from the light. See if you can blend the colours into one another, do the colours match the rainbow? You can keep going back to using the torch to create more abstract rainbow patterns on your paper.

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