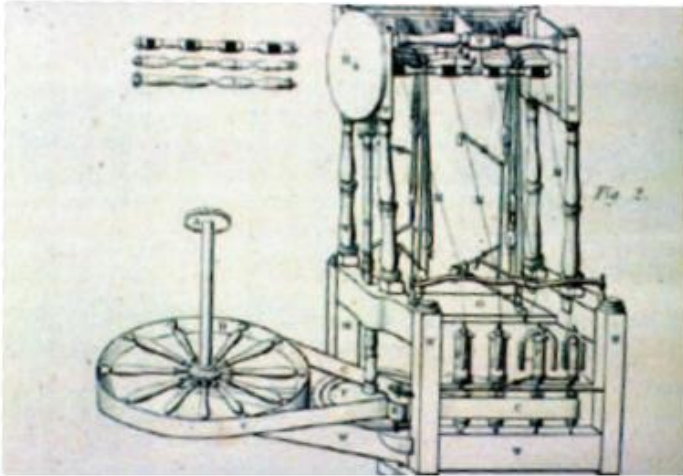
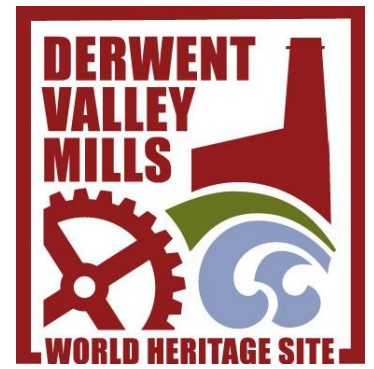


# Invent a machine



Arkwright's Water Frame: Credit Arkwright Society

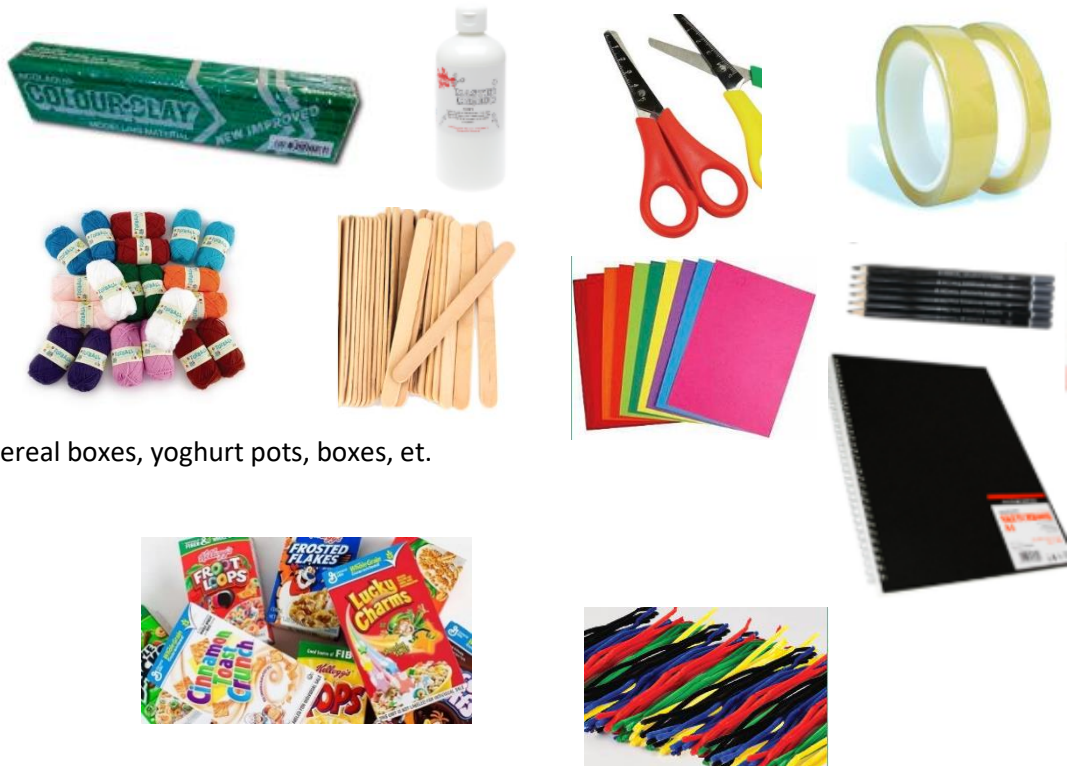


## How this links with the Derwent Valley Mills World Heritage Site:

Richard Arkwright and Jedediah Strutt made lots of money from inventing machines and patenting ideas. A patent means that other people have to pay to have one of the machines. Arkwright's Water Frame helped spin lots of cotton threads at once and Strutt's Derby Rib made the stretchy part of the fabric that keeps your socks up! The Derwent Valley Mills is where the 'factory system' started with machines and people doing different stages of production and manufacturing. It changed how we make things for ever!

## You will need:

- Plasticine
- Sellotape
- Glue
- Craft sticks
- Coloured card
- Wool
- Scissors
- Pipe cleaners
- Pencils
- Sketch book
- Packaging like cereal boxes, yoghurt pots, boxes, et.



## How to have a go:

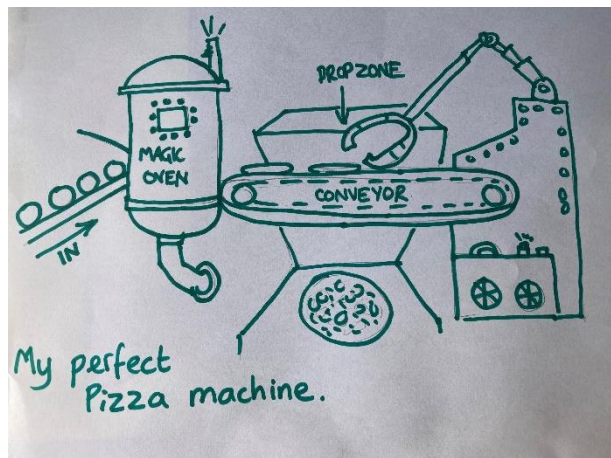
### Step 1:

- If you could invent a machine what would it do? Would it make the perfect pizzas? Make clean water from dirty sludge? Weave invisibility cloaks?
- If you had a factory what would it make? Perhaps a special bed to wake you up and get you dressed quickly in the morning? A teleporting machine to move things to where you want them?
- It's OK to borrow and adapt other people's ideas – Arkwright, Strutt and the Lombe brother's in the Derwent Valley all did!

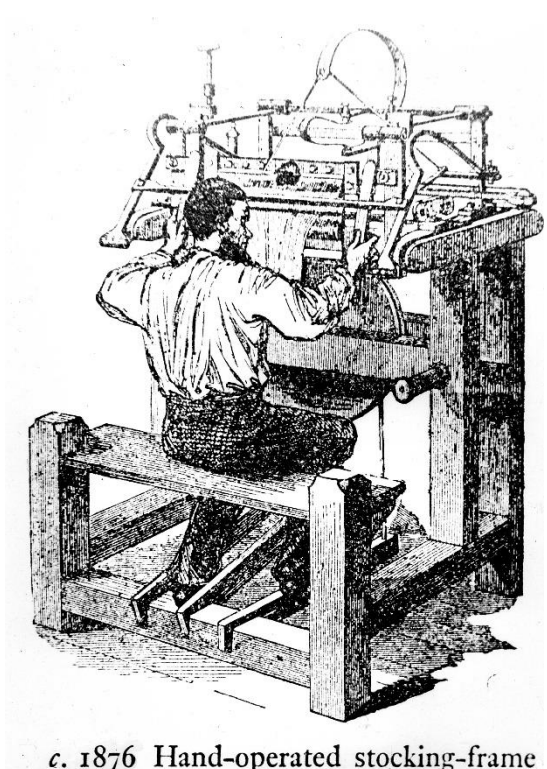


### Step 2:

- Use a sketch book and pencils to draw a design 'blueprint'– your special patent.
- Use the items suggested and recycled materials like cereal boxes and milk bottles to see if you can build your new invention.
- Can you make any moving parts, like a conveyor belt, with rubber bands or wheels?
- We don't know what your machine will do or what it will look like so we don't have any pictures to show you! Just be really inventive and creative!



Left: Arkwright's Water Frame (Credit: Adrian Farmer)



Right: A framework knitting machine with Jedediah Strutt's Derby Rib attachment (Credit: Belper Historical Society)

## **Please let us know what you think of this activity and share your work with us**

When you have had a go at this activity, we'd love to hear what you think, or see your work. Please send us any feedback below by 12<sup>th</sup> October 2020.

**Post us your work** – If you would like to post us any of your work or let us know what you think of this activity with a note with your name and address (and age if you'd like to share that). We are hoping to have an exhibition in the Autumn on one of the mill sites of the work created by people all along the valley. We will return all your work to you after the exhibition.

### **Postal address:**

Georgina Greaves (DVMWHS Creativity Packs)  
Derbyshire County Council  
North Block S7 - County Hall  
Matlock  
Derbyshire DE4 3AG

**Send us a photo** – Email a photo of your creation to [info@derwentvalleymills.org](mailto:info@derwentvalleymills.org)

**Social Media** – If you use social media use #DVMWHS Creativity and post the images of your work and tag us at:



Facebook: @DerwentValleyMillsWHS



Twitter: @DVMillsWHS



Instagram: @DerwentValleyMillsWHS

**Hope you enjoy doing this craft activity!**