

# Harvey's Lab Tours

## Activities for sites



**In this document, you will find some activity ideas and resources that you may wish to incorporate in your tours.**

**We will continue to add activities to this document. If you would like to share an activity you run, please email [harveyslabtours@ibms.org](mailto:harveyslabtours@ibms.org)**

**There are also ideas on the [Public Engagement page](#) on the IBMS website that you may find useful.**

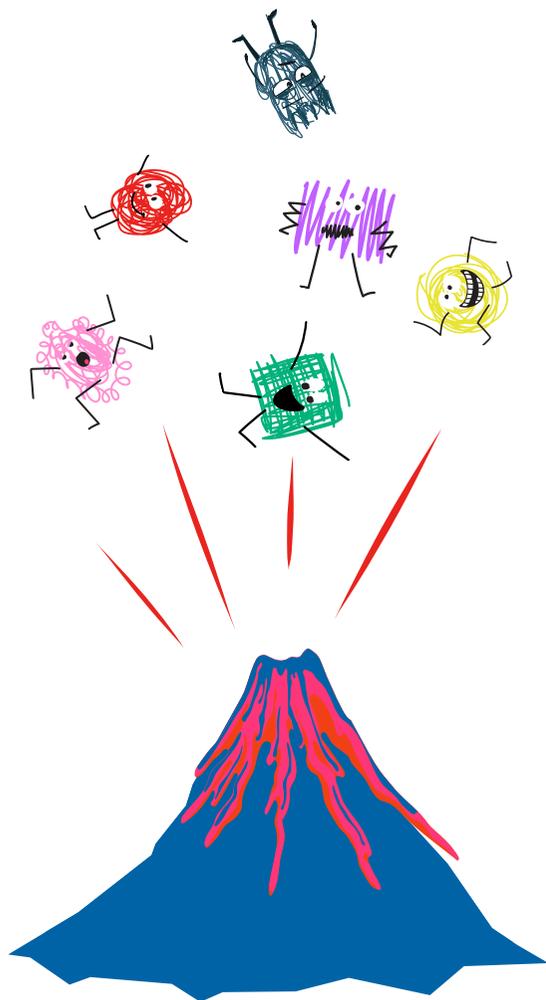
# Harvey's Lab Tours

## Activities for sites



# Emotions

## Volcano Activity



## What you need

- Tray
- Flask (bottle)
- Beaker (cup)
- Funnel
- Spoon + teaspoon
- Bicarbonate of soda / baking powder
- Vinegar
- Washing-up liquid
- Food colouring
- Instruction sheet



# Emotions volcano instructions

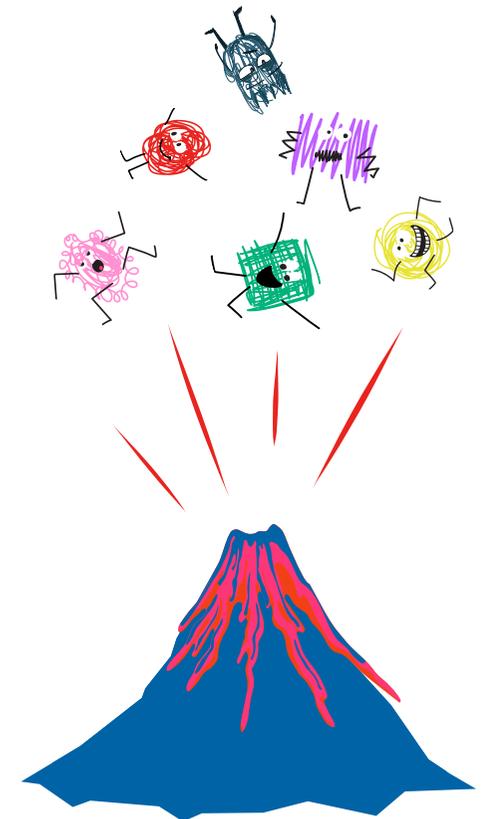


**1 ADD THE POWDER**  
Put 2 teaspoons of bicarbonate of soda into the flask.

**2 MIX THE LIQUID**  
Add the following items into the beaker  
40 ml vinegar  
A big squirt of washing-up liquid  
A few drops of food colouring  
Stir with the spoon

**3 CLEAR THE TRAY**  
Before making the volcano:  
Move everything out of the tray  
so that only the flask remains  
inside

**4 MAKE IT ERUPT**  
Put the funnel in the top of the flask  
Pour the liquid from the beaker into  
the flask  
Remove the funnel  
Gently swirl the flask  
Watch your volcano erupt!



# Emotions volcano talking points



- Once the volcano has settled, explain this is an “emotions volcano” showing how hospital visits might feel.
- Each ingredient represents a worry (for example: needles, the hospital being big and noisy, missing school, not knowing what will happen, feeling out of control).
- One worry alone might feel manageable, but lots together can build up into an emotional outburst, like the volcano erupting.

## Reassure them:

- If an outburst happens, that’s OK – feelings can be big and then settle.
- If we can reduce even one worry, the “eruption” may be smaller or not happen.

Explain that learning what happens to their samples and why can reduce anxiety and help them feel more in control – like removing one ingredient from the volcano.

# DIY Blood model



A simple model showing the different parts of blood and how they work together in the body

## What you need

- Glass container with a secure lid
- Cheerios
- Vegetable oil
- Mini marshmallows
- Cous cous
- Red food dye



### Information:

The model will last for around 4 years

You could use mayonnaise/jam jars

Remember to secure the lid before shaking!

# DIY Blood Model Instructions & talking points



Use the following as a guide, adjusting quantities to suit the size of your jar:

- Fill the jar to around  $\frac{3}{4}$  full with vegetable oil.
- Add approximately 5 ml of red food colouring (adjust slightly for larger or smaller jars).
- Add a small handful of the Cheerios, small marshmallows and couscous

Avoid overfilling the jar. The ingredients need enough space to move freely when the jar is shaken, so they mix together easily and create the intended effect.

Cheerios - red blood cells, which carry oxygen around the body.

Couscous - platelets, which help blood to clot and form scabs when you cut yourself.

Marshmallows - white blood cells. Some are lymphocytes, which make antibodies to fight viral infections, and others help fight bacterial infections.

Vegetable oil - plasma, the liquid part of blood that carries many chemicals measured in biochemistry tests to check how organs such as the liver, kidneys and heart are working.

# What is in your Blood?



## Red blood cell

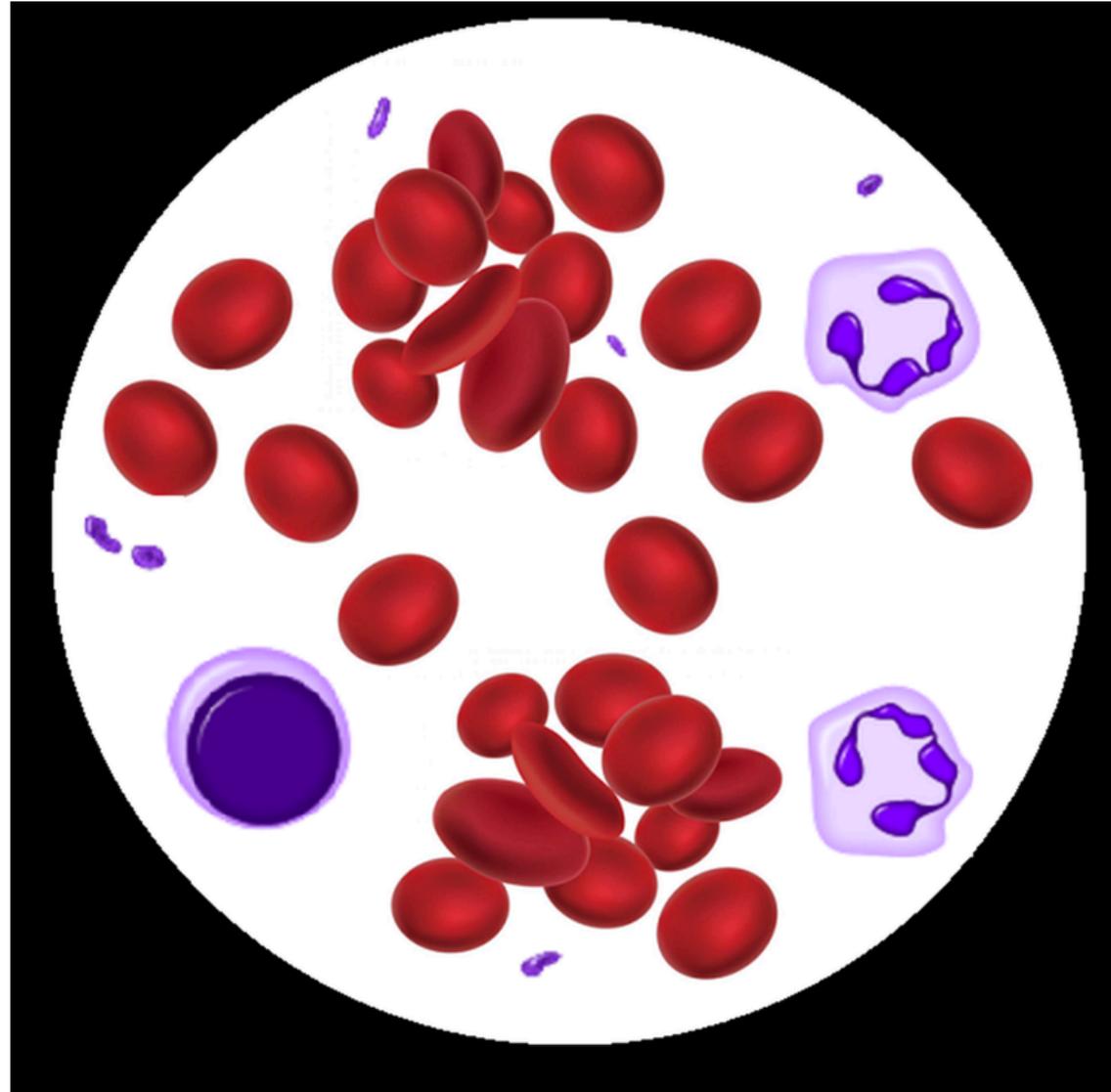


They carry oxygen around our body from our lungs

## Lymphocytes



A type of white blood cell they help us fight infections



## Neutrophils



A type of white blood cell. They help us fight infections by gobbling up bacteria

## Platelet



They help to stop us bleeding if we cut ourselves