Activity Pack One



Remember, Remember!

Remember, remember the fifth of November.

Gunpowder, treason and plot.

We see no reason

Why gunpowder treason

Should ever be forgot.....



Lily, Rosa and Frank are Healthcare Scientists working in the laboratories at Great Ormond Street Hospital. They work to help patients understand what is making them unwell, or to help with making them better.

It's November and there is fog hanging in the air, the leaves have begun to fall and the street lights have started to come on by the time they leave work.

Scientists often work late into the night and Lily is waiting for Rosa and Frank to finish for the day.

Whilst waiting for them she decides to run one more test using her favourite piece of lab equipment, a MALDI-ToF she's called Bonnie. Bonnie is a pretty cool piece of equipment as it has a laser and can get a result for Lily in less than 5 minutes for something she used to have to wait 2 days for.

Just as she presses the big red button, Road and Frank walk through the door to the laboratory. Suddenly a message appears on the screen, where no message should be saying 'HELPE...'

Then the message changes it and gives an address at the top of Lamb's Conduit Street and what looks like a map.

Lily is so surprised she jumps back and tries to turn Bonnie off, but the machine doesn't respond and the message just stays on the screen.

Not knowing what to do Lily, Rosa and Frank decide to leave the lab and find somewhere to sit and chat to work out what might have happened, after all this is a piece of scientific equipment not a computer game.

As they leave the lab they are suddenly surrounded by the fog they had seen outside the window until they can barely see what's in front of them.

As they walk towards where they believe the tube to be they suddenly realise they are on Lambs Conduit Street and the fog begins to clear

A child is waiting, she has a Scottish accent and demands they call her Princess Elizabeth! They must all bow to her!

She tells them there is a plot to get rid of her father by blowing up the Houses of Parliament. The scientists are amazed – do you mean the Gunpowder Plot of 1605?

She says she will tell them later how she managed that.

Even then, they don't believe she is s princess....

But she is.



What can you do to help the scientists in 1605?

The scientists must find a way to help Princess Elizabeth find the Gunpowder Plotters. Then maybe they'll be able to find out how to get back to 2020!

The scientists have asked you to complete a number of activities in order to help them find the plotters. You are the detectives, guiding the scientists so that they can get home.

Complete the following activities and we'll find a way to get the results back in time to the scientists in 1605.





Activity One

Lily remembers that Princess Elizabeth is the daughter of King James I and that the Gunpowder plotters were trying to kill her father so that they could put her on the throne. Lily, Rosa and Frank have never met a princess before, let alone one from 1605.

Can you draw a picture of what Princess Elizabeth might look like so that they scientists can bring it back with them to 2020, they think it might be useful to modern day historians?						

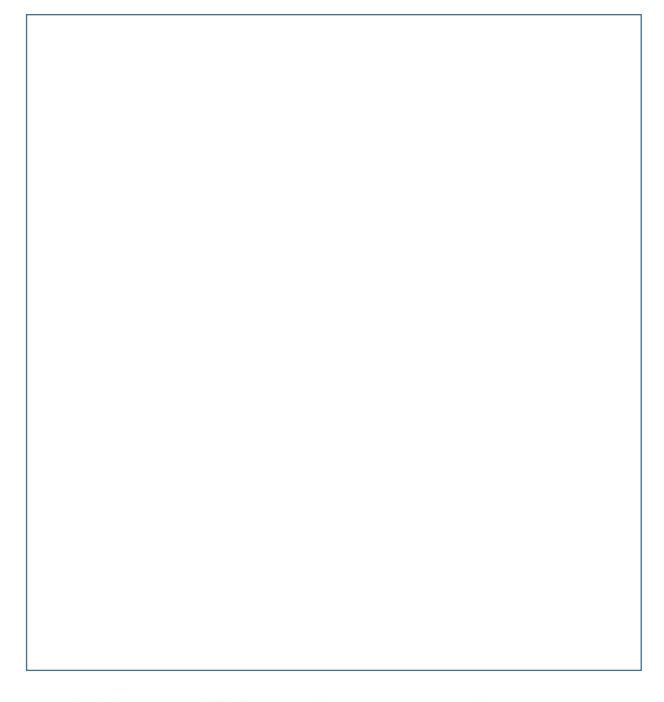




Activity Two

Princess Elizabeth doesn't know what a scientist is. Lily, Rosa and Frank try to explain but they aren't doing a very good job of it.

Can you draw a picture of what a scientists looks like to help Princess Elizabeth understand?





Remember, Remember Activity Three

Princess Elizabeth finds it very funny that the scientists don't know where they **are**, as everyone knows that Mr Lamb made a dam to direct water from the Fleet River so that people could make a street here and have fresh water and water for washing.

That's where Lamb's Conduit Street gets its name.





Before you leave, Princess Elizabeth gives you a piece of paper with a message on it for the guards at the Houses of Parliament, she says it contains a codeword so they will let you in. The problem is she doesn't want anyone else to be able to read what that codeword is, so she asks you to turn the message into a code so that it can't be deciphered if you lose it (she doesn't much trust the scientists as they seem a bit clueless). Can you turn the below message into a coded message so that it is safe in case the scientists lose it on the way?

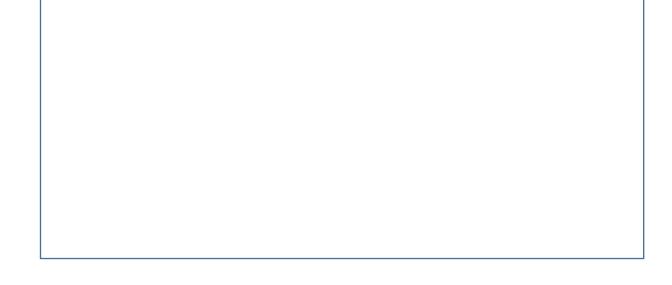
Dear Guards,

These people may be strange but they are here to help. They apparently can use good magic they call 'Science' to help us find the Gunpowder plotters. Please let them into the Houses of Parliament and listen to what they say.

Codename: Sugared Violets

M	Write what letter each of your code letter equates to below so:																								
A	В	C	D	Е	F	G	Н	Ι	J	K	Γ	M	Ν	О	Р	Q	R	S	Τ	U	V	W	Χ	Y	Z

Write your new encoded message in the box below so the scientists can take it with them:







Activity Five

Whilst the scientists are travelling using Princess Elizabeth's map they are shocked by how dirty London was in the past. People are wandering covered in dirt and they are eating with hands that they haven't washed.

Shocked, Lily, Rosa and Frank ask the boatman why they don't wash their hands? He says that they don't know anything about hand washing. Frank tries to give him a hand hygiene leaflet that explains how to wash his hands and why it's important, but the boat man says he doesn't know how to read.

Rosa asks how he learns things if he doesn't know how to read? The boatman says that they make up rhymes and use those to learn instead.

(Can you make up a rhyme about keeping clean or washing your hands that Rosa can teach the boatman so he can teach others about why it's important to keep clean?





Activity Six

The scientists are really excited when they arrive at the Houses of Parliament to see what it was like in 1605. Scientists like to keep records of what they see and do as it's important for planning experiments and thinking about science. So they pull out their notebooks and start to makes notes about what they see.

Can you write some notes on what you would be excited in time and describe what you imagine it n	d to see if you travelled back night look like?



What happens next?

Lily, Rosa and Frank spend a lot of time looking at the pile of wood that is under the Houses of Parliament.

There is gunpowder there, but also some barrels of river water, piles of wood and some blood where one of the plotters has hurt themselves before they ran away.

The scientists investigate the scene using some science skills from working in the hospital. They look at what the blood is made up of, where the fungi growing on the wood is from, where the river water came from, and what kind of chemicals were on the wood.

This leads them to locate where the plotters are hiding. Overnight the scientists find the plotters and persuade them to give themselves up.

The Plotters are due to be hung, drawn and quartered....but Guy Fawkes is more frightened of the scientists because they have with them the equipment they used to find him, plus their needles and swabs.

Lily, Rosa and Frank get a bit upset when Guy Fawkes is scared of them and say "but we are just trying to make people well and stop diseases".

Guy Fawkes replies "but that is why we were plotting! All these people in our towns are sick and we have had plague and we don't know what to do! No one is helping us".

Princess Elizabeth steps in and says that she can't have her people getting sick. She demands that the scientists help. The scientists decide to teach the plotters the rhyme they taught the boatman in order to remember how to stay well and avoid infection.

The Guard says, we can't just release them!

Lily, Rosa and Frank say you must release them – these rhymes, this knowledge are the antidote to the plague and all these illnesses.

OK says the guard and Elizabeth, but they have to all have fake names and never tell anyone the truth. We'll make up a story that they were all executed so no one will plot against us again, and they can make up for their crimes by doing good in the world.

It's a deal! Says everyone

And **it's** almost morning and the scientists have to get back to work

They get back in their boat and row and by the time they are back at Lamb's Conduit Street they are in 2020 again, and late for work.



What do Healthcare Scientists do?

Healthcare Scientists are often considered the forgotten workforce in the NHS, we are small in numbers, but in terms of impact, we are considerable. Eighty percent of diagnosis, and therefore people put on the pathway to better health, have that diagnosis made by Healthcare Scientists. We don't just work in labs, many of you will meet us and assume we are doctors or nurses.



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