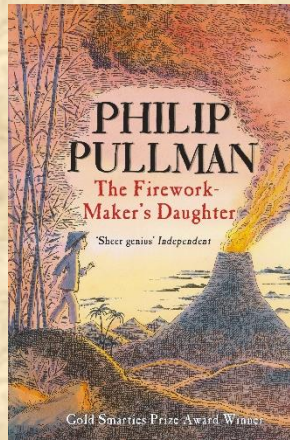


## YEAR 4 PROJECT



# *The Firework Maker's Daughter*



*Dear Year 4,*

*We hope you all had a restful Spring Bank Holiday and enjoyed the sunshine!*

*The project for this half term is based around the book, *The Firework Maker's Daughter*. We had planned to work on this book during the final summer term.*

*We have aimed to cover a range of subject areas and hope that there is something for everyone to enjoy.*

*This project should run alongside the *CGP* books you already have, and your *White Rose Maths* resources which are available on the school website. We will also continue to set additional writing tasks, arithmetic and other whole school challenges for you.*

*The story of *The Firework Maker's Daughter* is fantastic, so we look forward to you enjoying it and sharing your work! We love seeing what you have done, so please make sure you keep sending your learning to us. You can do this on *Class Dojo* or via e-mail.*

*Thanks again*

*Year 4 Team x*

## Task One

### Design & Technology

In the first chapter, we are introduced to Lila.

Lila's father is a firework maker. He makes; Crackle-Dragons, Leaping Monkeys, Golden Sneezes and Java Lights.

From an early age, Lila has been creating fireworks too. She makes Tumbling Demons and Shimmering Coins!

What would you make?

#### Design your own firework.

Each New Year's Eve, Sydney, in Australia, host a HUGE Firework Display. This video might inspire you when you are designing your firework.

<https://www.youtube.com/watch?v=eIEB9vdpqpQ>

Include;

- Name – explain your choice
- Colours
- Special Effects

There are many different types of firework;

And they all have different effects;

**3 WILL YOUR FIREWORK HAVE A COLOURED CENTRE EFFECT?**

In the same way a flower has a centre, so too an aerial shell can have a centre. This is a special colour or effect in the centre of the shell. You can have different styles of centre including:

	UMBRELLA	WILLOW	PEONY	PALM	PATTERN	STROBE	BEEES
CENTRE	Y	Y	Y	Y	N	Y	Y

**PURPLE WITH SILVER PALM CENTRE**

**TWILIGHT GLITTER FLOWER WITH RED CENTRE**



Now you know what you want the BIG BANG to look like, what about the packaging? Design and make your packaging using whatever materials you have available.



## *Task Two*

### Art

Now that you know what your firework will look like, can you create the explosion as a piece of art?

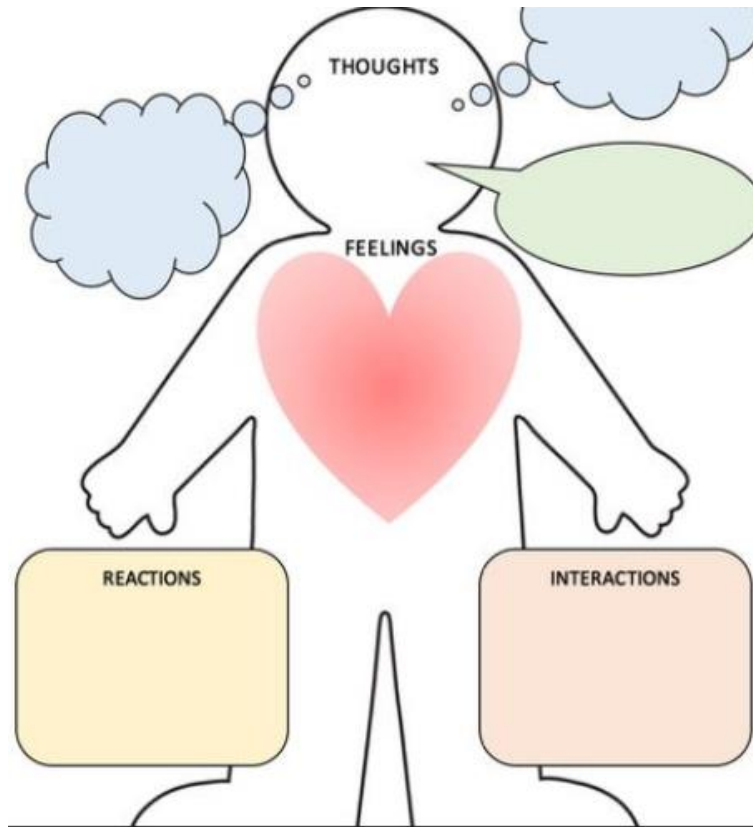
You could do this with paint, chalk, pens, or even digitally.

There are some ideas below;



Lila's adventure is well underway.

We have learned quite a lot about her so far, create a role on the wall of all that you know about Lila.



Use this to create a character description of Lila, complete with illustration. Here are some extracts from the text which may help you;

**'Your hair's a mess, your fingers are burned and stained with chemicals, your eyebrows are scorched...'**  
**'I'll set up as a Firework-Maker on my own and put my father out of business.'**  
**'But she had chosen to make the journey, and she could hardly turn back when she'd barely begun.'**

### Challenge

Repeat this activity for Chulak.

Can you identify any vocabulary in your character description which you could improve?

## *Task Four*

### Geography

The Firework Maker's Daughter takes place in China, a long time ago.

Find out the following about China:

- Location on a map
- Famous Landmarks
- Food
- Longest River
- Tallest Mountain
- Population
- Wildlife
- Anything else you think is interesting!

Present your learning any way you choose!



## FIREWORKS IN A JAR!

**Question:**

***What is density?***

You will need; a jar, water, oil (vegetable or olive oil is fine), food colouring, a spoon.

Follow these instructions...

	<b>POUR WATER</b> Fill the jar 3/4 way with warm water
	<b>POUR OIL</b> Pour 3-4 tablespoons of vegetable oil in a separate cup
	<b>POUR FOOD COLORING</b> Drop 2-4 drops of each color of food coloring into the oil
	<b>MIX</b> Mix the oil and food coloring
	<b>POUR AND WATCH</b> Pour the oil mixture into the water and watch what happens

**STOP! What is happening!?**

What do you notice?

How is this different to BEFORE you mixed?

WHY has this happened?

## Task Six

### English

*Before she left, Lila wrote a letter to her father. This is what it said;*

Dear Father,

I have completed my apprenticeship. Thank you for all you have taught me. I am going to seek the Royal Sulphur from Razvani, the Fire-Fiend, and I shall probably not see you again.

Your ex-daughter,

Lila

*Lila faces many perils on her journey and experiences lots of new things.*

How might she write to her father now?

**Write to Lalchand as if you are Lila.**

Try to include the following;

- Paragraphs
- Fronted adverbials, including commas
- Conjunctions, including; however, although, despite
- Descriptive phrases to illustrate Lila's perspective

### Challenge

Write back to Lila, as if you are Lalchand



## Science

Lalchland and Lila's fireworks are very loud! You have no doubt heard fireworks yourself, maybe on Bonfire Night, or at a celebration.

But, how does sound work?

<https://www.bbc.co.uk/bitesize/topics/zgffr82/articles/zstr2nb#z84xb82>

### How sound is made

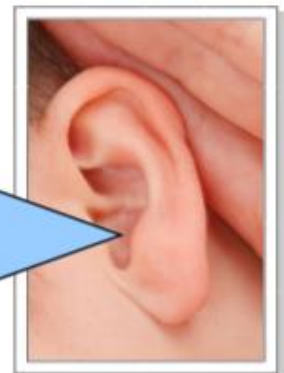
Sound is caused by **vibration**. Vibration means **wobbling** very quickly back and forth. When you pluck a guitar string, or hit a drumskin, you can see the material vibrate. This causes the **air** touching the string to vibrate, which causes air further away to vibrate, which causes the air near your **ear** to

vibrate, which your brain experiences as **sound**.

The moving vibration is called a **sound wave**.



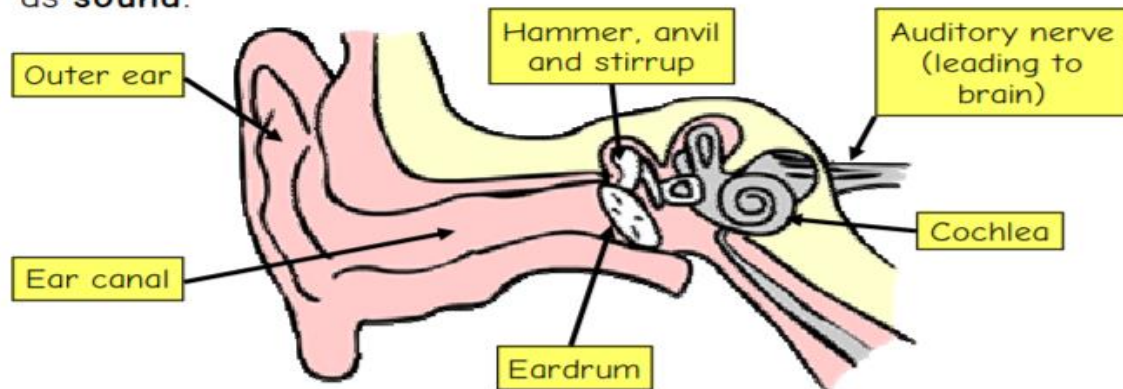
The vibrating **guitar** causes the **air** to vibrate. This vibrating air is called a **sound wave**. When the air near your **ears** vibrates, your brain experiences a **sound**.



### How our ears work

When a sound wave reaches our ear, our **outer ear** (the part that we can see on the side of our heads) funnels the sound into our heads down the **ear canal**. At the end of the ear canal is the **eardrum**, which is waterproof and airtight.

Past the ear canal is the **middle ear**. Inside the middle ear are the **hammer, anvil** and **stirrup** (the three smallest bones in the body) which vibrate and pass the sound waves to the **inner ear**, which contains the **cochlea**, which turns the vibrations into **electrical signals**. These signals travel down the **auditory nerve** to the **brain**, which experiences the signal as **sound**.

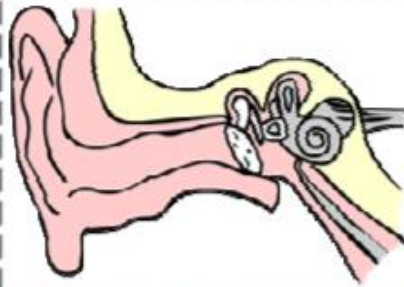


Cut the explanations and match them to the correct picture.

The sound wave reaches the **ear**. The wave travels deep inside the ear, where it is turned into an **electrical signal** that the brain understands as **sound**.



The vibrating object causes the **particles** in the **air** around it to vibrate too, because it is touching them.



The vibrating air particles bump into other air particles further away, causing them to vibrate too. This is called a **sound wave**. It gradually moves away from the **source**.



An object starts to **vibrate**, or move very quickly back and forth. This is called a **sound source**. An example of a sound source is a plucked guitar string.



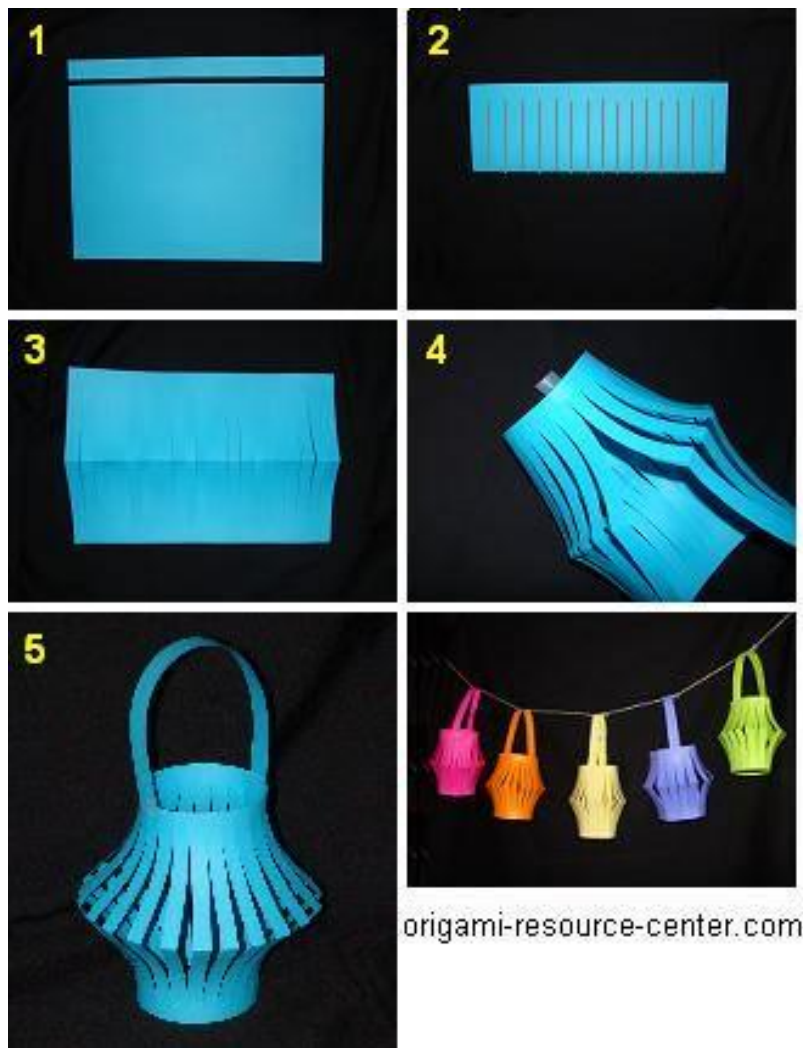
Take a look at these videos below and have a go at the cool sound investigations yourself!

<https://www.youtube.com/watch?v=BoeDI-YkzIO>

<https://www.youtube.com/watch?v=722hZLp5KaM>

At the Full Moon Ceremony, the trees were decorated with hanging lanterns.

Follow the pictorial instructions below to create your own beautiful lanterns...



Decorate these however you like, you can add pictures, writing or stick on embellishments!

**Now, create your own instructions for making a lantern like this.  
You could write them, make a poster, use images or even make a tutorial video!**



**Art**

As well as lanterns, at the Full Moon Ceremony, were blossoms scattered all over the water.

In China and Japan, there are often cherry blossom festivals, and cherry blossom is often depicted in art work.

There is a beautiful video of Blossoms blooming in China here;

<https://www.youtube.com/watch?v=5we0ce09fVs>



There are lots of examples of methods for creating this beautiful art work. Choose a method you like, or find your own and create a Chinese Blossom painting!

