

## Geography

### Key Questions

1. Who was Benjamin Britten?
2. What was his job?
3. What is an orchestra?
4. What are the 4 main sections of an orchestra called?
5. Can you name an instrument for each section?
6. What is an opera?
7. What are the names of the different singers in an opera?
8. How do they sing?

### Key Vocabulary

**Orchestra** - A large ensemble of musicians divided into 4 families of musical instruments.

**Ensemble** - A group of musicians

**Conductor** - Stands at the front of the orchestra and directs it using a baton.

**Strings** - Made from wood and have strings usually played with a bow and be plucked.

**Woodwind** - played by blowing into the instrument and reed instruments.

**Brass** - Made from metal and the sound is made by 'buzzing' through the mouthpiece.

**Percussion** - instruments which sound when hit, struck, scraped or shaken.

## Science

### Key Questions

1. How do light waves travel?
2. How does light enable us to see objects?
3. What does reflection mean?
4. When a beam of light hits an object, how does it reflect off the object?
5. How are shadows formed?
6. Can you change the shape of a shadow?
7. How can you change the size of a shadow?

### Key Vocabulary

**dark** - the absence of light

**direction** - the way that something is moving

**light** - a source of energy that allows you to see

**light beam** - a group of light rays

**light source** - something that makes light

**opaque** - cannot see through

**reflect** - bounces or changes direction

**reflective** - something that reflects well

**see** - to perceive with the eyes

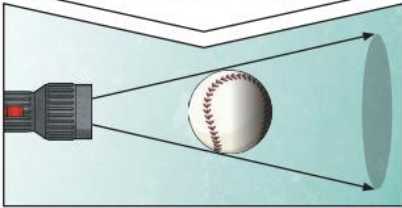
**shadow** - a dark area or shape produced by an object coming between rays of light and a surface

**transparent** - can see through

**translucent** - can see through partially, but not in detail

Knowing More and Remembering More at St Joseph's  
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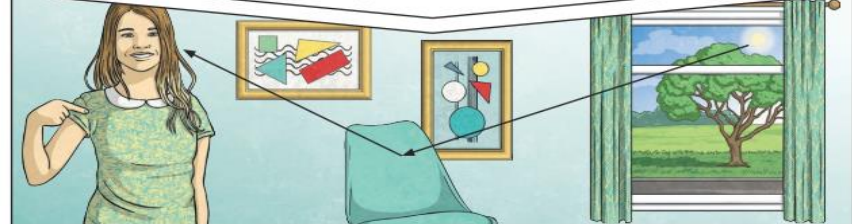
A shadow is always the same shape as the object that casts it. This is because when an **opaque** object is in the path of **light** travelling from a **light source**, it will block the **light** rays that hit it, while the rest of the **light** can continue travelling.



Key Vocabulary	
<b>light</b>	A form of energy that travels in a wave from a source.
<b>light source</b>	An object that makes its own <b>light</b> .
<b>reflection</b>	<b>Reflection</b> is when <b>light</b> bounces off a surface, changing the direction of a ray of <b>light</b> .
<b>incident ray</b>	A ray of <b>light</b> that hits a surface.
<b>reflected ray</b>	A ray of <b>light</b> that has bounced back after hitting a surface.
<b>the law of reflection</b>	The law states that the angle of the <b>incident ray</b> is equal to the angle of the <b>reflected ray</b> .

**Key Knowledge**  
We need **light** to be able to see things. **Light** waves travel out from sources of **light** in straight lines. These lines are often called rays or beams of **light**.

**Light** from the sun travels in a straight line and hits the chair. The **light** ray is then **reflected** off the chair and travels in a straight line to the girl's eye, enabling her to see the chair.



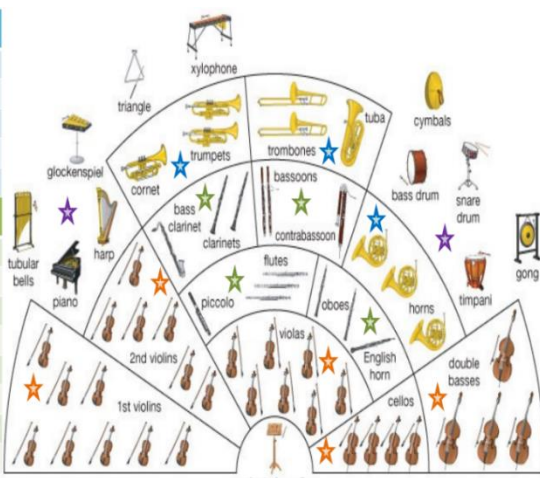
Operas consist of solo singers and a chorus. The orchestra that will provide the musical accompaniment to opera singers will consist of strings, woodwind, brass and percussion.

There is no speaking in an opera, only singing. Solo singers perform arias - solo songs that drive the narrative of the opera's story. The chorus will join in for the bigger songs and consist of a SATB choir who will sing mostly in harmony.

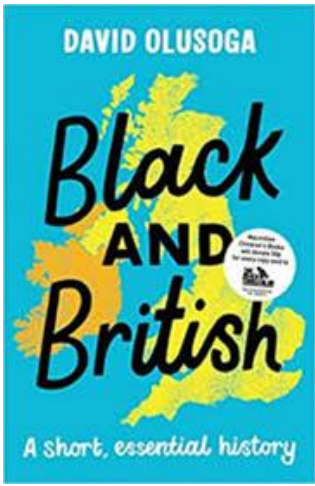
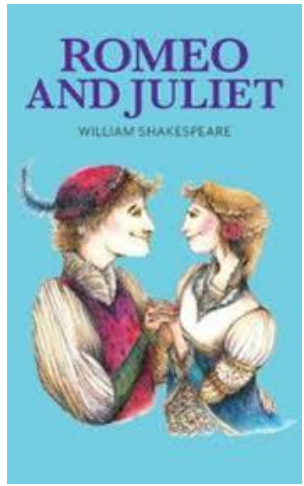
The parts that comprise an SATB choir are:

- **Soprano**
- **Alto**
- **Tenor**
- **Bass**

Brass family ★
Trumpets
Cornets
Trombones
French horns
Tubas
Woodwind family ★
Piccolos
Flutes
Oboes
English Horns
Bassoons
Contrabassoons
Clarinets
Bass clarinets



String family ★
Violins
Violas
Cellos
Double basses
Percussion family ★
Glockenspiel (tuned)
Tubular bells (tuned)
Harp (tuned)
Piano (tuned)
Xylophone (tuned)
Snare drum
Cymbals
Timpani
Gong
Bass drum



English Texts



Transverse Line (1923)



Composition VIII (1923)