



# **ROMEO AND JULIET**

## **YEAR 5**

### **SCIENCE: EARTH AND SPACE**

**These sequence of lessons will cover the following national curriculum objectives:**

- describe the movement of the Earth, and other planets, relative to the Sun in the solar system
- describe the movement of the Moon relative to the Earth
- describe the Sun, Earth and Moon as approximately spherical bodies
- use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

# YEAR 5

## SCIENCE: EARTH AND SPACE

### CONTEXT

A symbol is something that stands for more than itself...

In *Romeo and Juliet* the star symbolises fate and is used to help develop plot.

Light/Dark and Day/Night are also symbolic in *Romeo and Juliet*. Light is typically a symbol of hope. Dark often represents doom and the unknown. Shakespeare, however, turns these symbols on their heads. In the world of this play, dawn, day, and bright lights are, overwhelmingly, negative—night, the time that *Romeo and Juliet* can be together in secret, is the time of day they both long for.

#### Prologue

From forth the fatal loins of these two foes / A pair of star-cross'd lovers take their life; / Whose misadventured piteous overthrows / Do with their death bury their parents' strife

#### Romeo

It is the east, and Juliet is the sun. Arise fair sun and kill the envious moon

I am too bold, 'tis not to me she speaks / Two of the fairest stars in all the heaven, / Having some business, do entreat her eyes / To twinkle in their spheres till they return ACT 2, SCENE 2

Is it even so? then I defy you, stars! ACT 5, SCENE 1

O, here / Will I set up my everlasting rest, / And shake the yoke of inauspicious stars / From this world-wearied flesh" ACT 5, SCENE 3

More light and light: more dark and dark our woes ACT 3, SCENE 5

#### Juliet

Give me my Romeo; and, when I shall die,  
Take him and cut him out in little stars,  
And he will make the face of heaven so fine  
That all the world will be in love with night  
And pay no worship to the garish sun  
ACT 3, SCENE 2

#### Friar Lawrence

The grey-eyed morn smiles on the frowning night ACT 2, SCENE 3

#### Prince Escalus

A glooming peace this morning with it brings;  
The sun, for sorrow, will not show his head  
ACT 5, SCENE 3

# YEAR 5

## SCIENCE: EARTH AND SPACE

### LESSON 1:

**L.I. To describe the movement of the Moon relative to the Earth.**

*But, soft! What light through yonder window breaks?*

*It is the east, and Juliet is the sun.*

*Arise, fair sun, and kill the envious moon,*

*Who is already sick and pale with grief. ACT 2, SCENE 2*

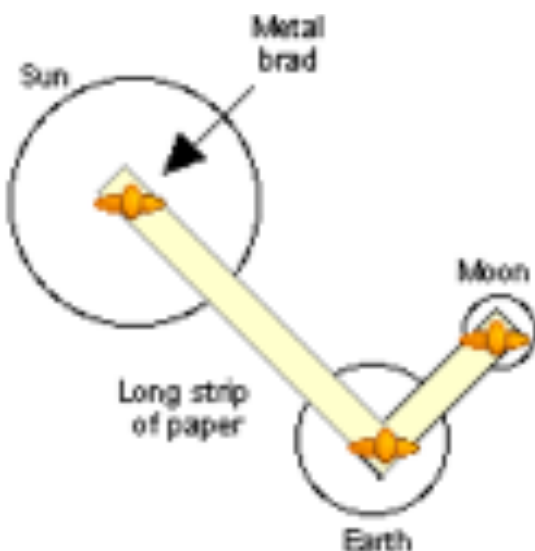
Why do you think Romeo refers to the moon as, 'envious'?

1. Show children the image below
2. In talk partners, children to discuss what it shows. Ask them to share their ideas
3. Watch [this video](#) (the moon and its orbit around Earth)
4. Were they right?



#### PHASES OF THE MOON

**Task:** Use Template 1. Working individually or with a partner, make a model of the sun, moon and earth to explain their relationship to each other.



MAKING YOUR MODEL USING TEMPLATE 1



COLOUR YOUR PLANETS

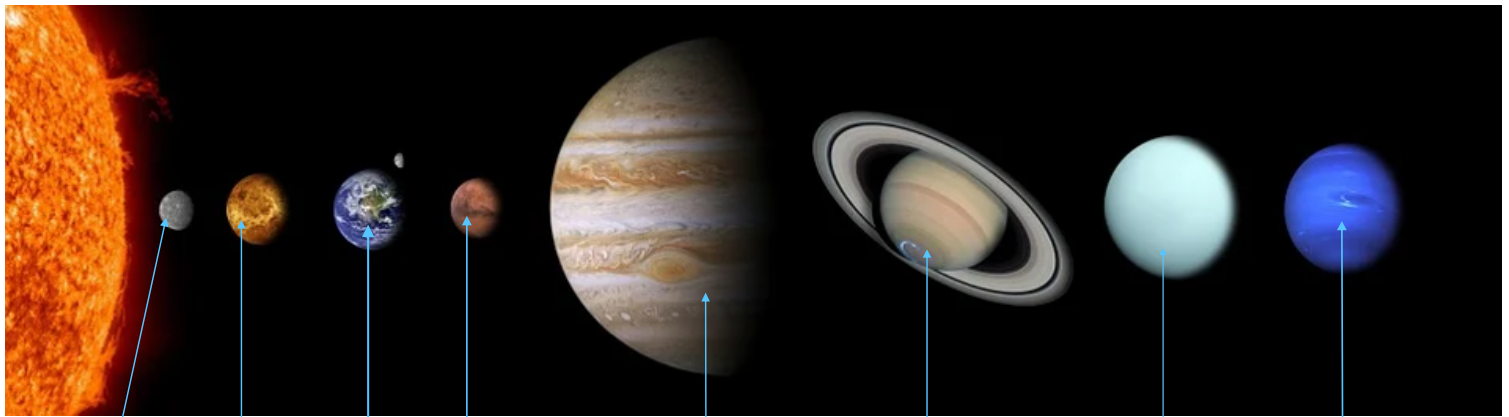
# YEAR 5

## SCIENCE: EARTH AND SPACE

### LESSON 2

L.I. To know the 8 planets and their characteristics.

In talk partners, list all the planets you know  
Challenge: Write an interesting fact about each planet.



Mercury

Venus

Earth

Mars

Jupiter

Saturn

Uranus

Neptune

Tasks:

1. Label the planets (Worksheet 2)
2. Complete Worksheet 2b by researching the planets, using books or the internet
3. Share your findings with a partner, small group or whole class

### LESSON 3

L.I. To describe the movement of the Earth, and other planets, relative to the Sun in the solar system

Watch [this video](#)

In a group of 10 use fruit or painted stones to represent all 8 planets, the sun and the moon.  
Act out how the solar system works.



# YEAR 5

## SCIENCE: EARTH AND SPACE

### LESSON 4

**L.I. To use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.**

Children to answer these questions with a talk partner...

1. How long does it take the Earth to spin round once on its axis? **(Answer: 24 hours)**
2. Where are we on the Earth relative to the Sun at night time? **(Answer: On the other side of the Earth, away from the sun)**
3. What about at midday? **(Answer: On the other side of the Earth, directly facing the sun)**
4. How many hours pass from midday to midnight? **(Answer: 12 hours)**

As we know, Romeo and Juliet much prefer night to day! The play takes place in Verona in July - sunset takes place around 9pm! They struggled to know what time of the day it was and how close to night they were getting.

**Task:** To make a sundial

#### Equipment

- Cardboard
- Lump of Blu Tac or plasticine
- Pencil
- Ruler
- Marker/pen
- Clock

#### Method

1. Push a long pencil (the gnomon) into the Blue Tac or plasticine
2. Place the cardboard in a sunny space outside (no shade).
3. Place the pencil in plasticine in the middle of the cardboard.
4. On each hour, look at where the shadow of your pencil falls.
5. With the other pencil, draw the shadow of the pencil and write the number of the hour.
6. Repeat for as long as you can!
7. Test out your sundial (the following day) and make sure the shadows fall on the correct time!

**EVALUATION AND ANALYSIS:** Children to answer these questions in their books or in small groups:

1. How does a sundial work?
2. What is "daylight saving time"?
3. How does daylight saving time affect a sundial?
4. What if you were to change the sundial's material to a mirror? Would the materials change the results of the sundial and tracking the sun?
5. Could the sundial's flat plate/face be curved? Would a curved plate change the accuracy of the sundial?

# YEAR 5

## SCIENCE: EARTH AND SPACE

### LESSON 5

L.I. To use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

In Romeo & Juliet, Romeo states, "Two of the fairest stars in all the heaven, having some business, do entreat her eyes to twinkle in their spheres till they return" (2.2. 16-19)

But which are the brightest stars in our sky?

Research and create a game of TOP STARS! (Use Lesson 5: Templates)

Then play the game with a partner...

- A player reads out a category from the top card, i.e. weight
- The other players then read out the same category from their cards.
- The player with the best or highest value wins
- That player collects all the top cards
- It is then their turn again to choose a category from the next card.

The player with all the cards at the end is the winner. For homework you could create a set of TOP PLANETS!

Name: Dog Star



**Distance from Earth:** 8.611 light years  
**Radius:** 1.19 million km  
**Constellation:** Canis Major

**Brightness:** ★★★★★

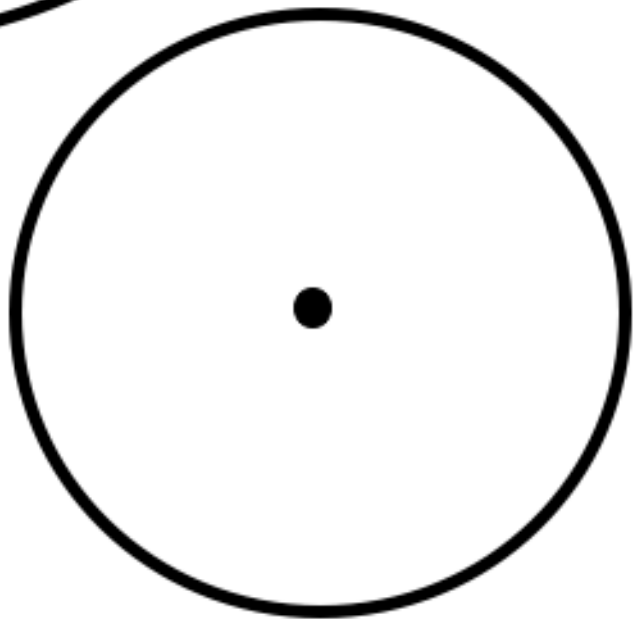
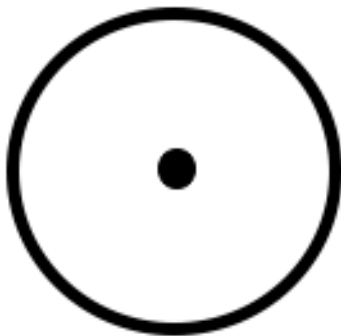
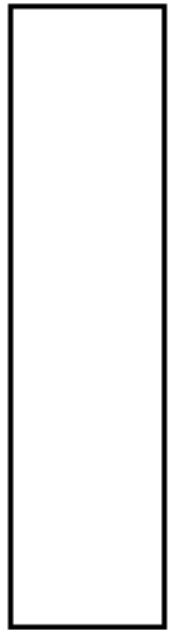
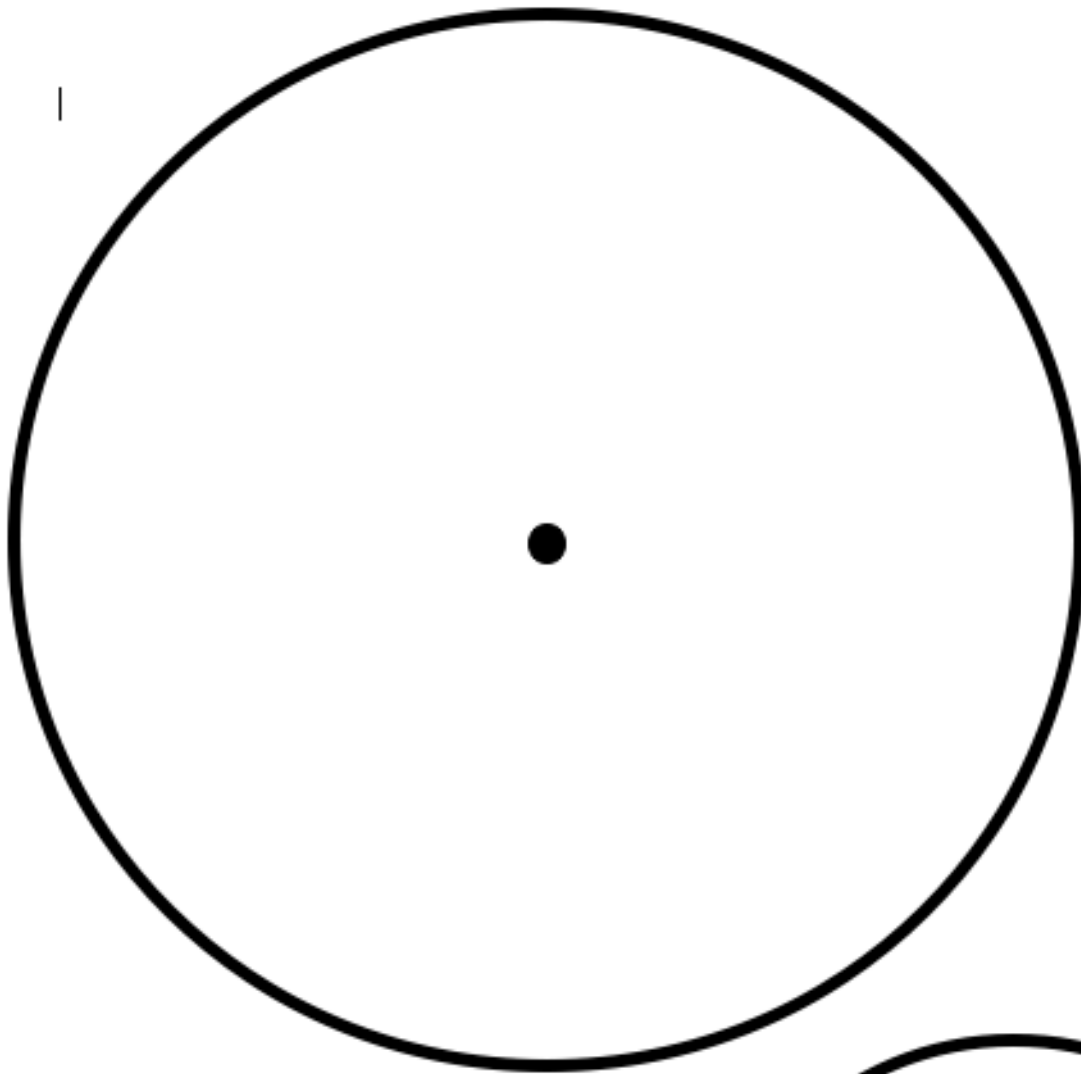
Name: Vega



**Distance from Earth:** 25.05 light years  
**Radius:** 1.6432 million km  
**Constellation:** Lyra and part of the 'Summer Triangle'

**Brightness:** ★★★★★

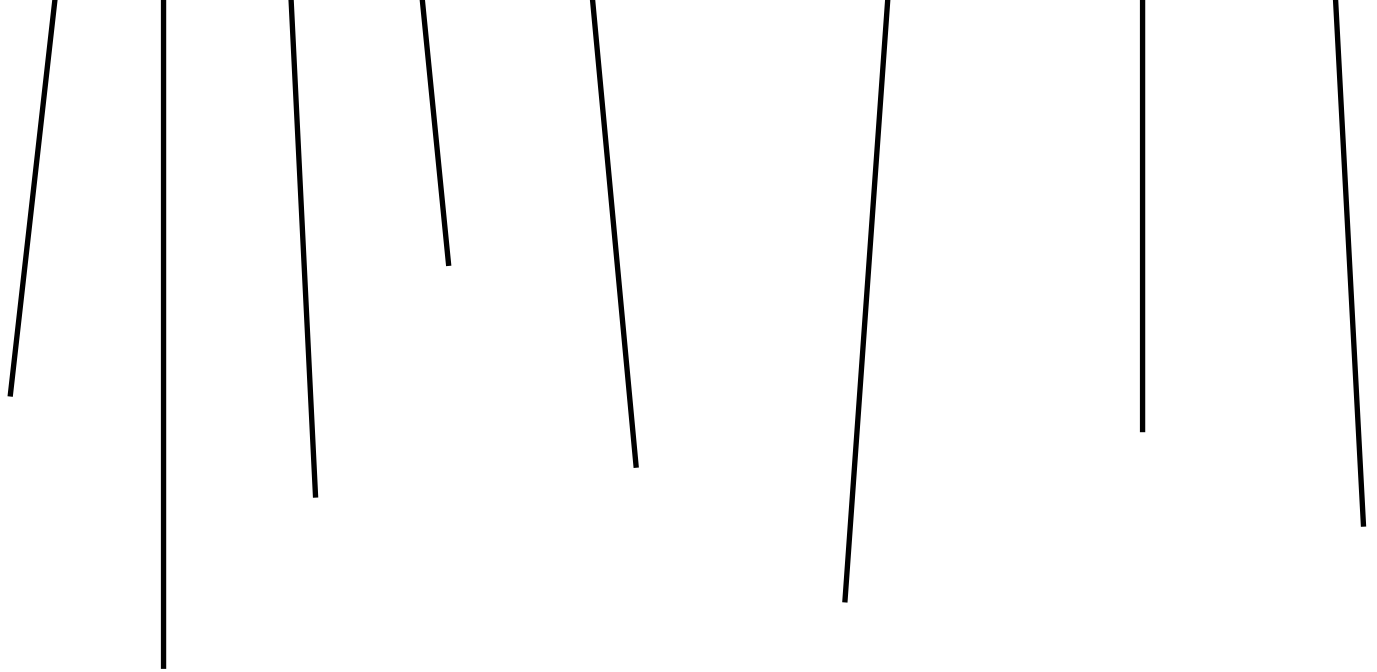
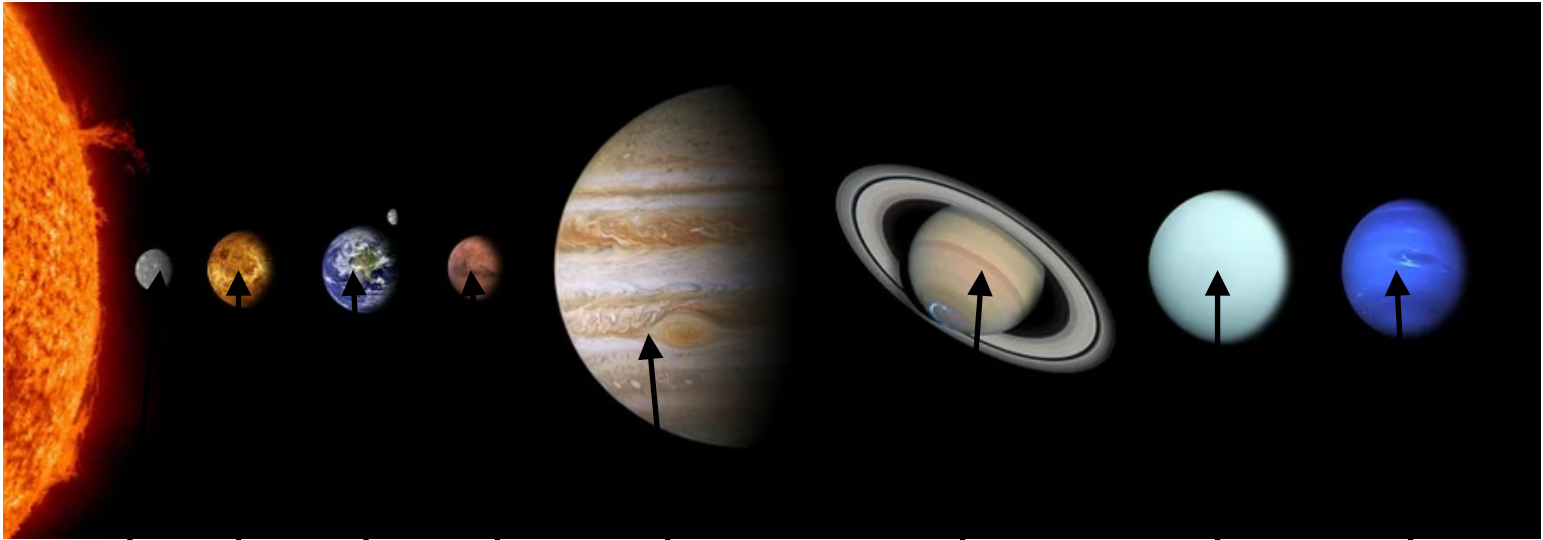
# LESSON 1: TEMPLATES



*print on cardboard*



## LABEL THE PLANETS



### PLANET WORD BANK

Venus

Mercury

Jupiter

Saturn

Uranus


Neptune

Earth

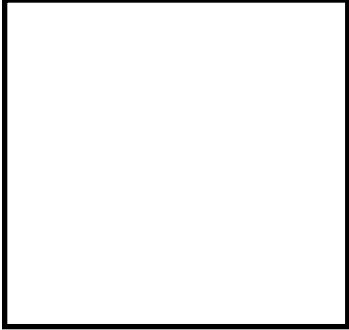
Mars

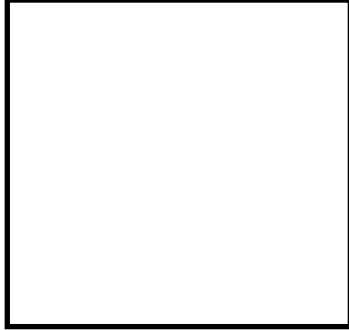



## Information about the Planets

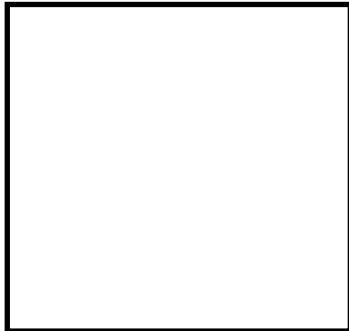
	Diagram	Colour	Number of Moons	Distance from the Sun and Earth
<b>Mercury</b>		dark grey	0	Sun = 57.438 million km Earth = 182.45 million km
<b>Venus</b>				
<b>Earth</b>				
<b>Mars</b>				
<b>Jupiter</b>				
<b>Saturn</b>				
<b>Uranus</b>				
<b>Neptune</b>				

# LESSON 5: TEMPLATES

<b>NAME</b>

<b>DISTANCE FROM EARTH:</b>
<b>RADIUS:</b>
<b>CONSTELLATION:</b>
<b>BRIGHTNESS:</b>

<b>NAME</b>

<b>DISTANCE FROM EARTH:</b>
<b>RADIUS:</b>
<b>CONSTELLATION:</b>
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