Year 9 Work Pack

In addition to the work contained in this pack, complete work on SPARX Reader, SPARX Maths and SPARX Science.

English

Lots of people know about 'Romeo and Juliet' from popular culture.

Romeo + Juliet (1996)

Romeo and Juliet (1968)

A Monument Belonging to the Capulets (1789)

Vogue fashion shoot (2008)

Write down a list of things you think you already know about the story of 'Romeo and Juliet'.

English

- ✓ Both plays were **comedies.**
  - ✓ There was a **romantic plot** in both stories (**Helena-Demetrius, Hermia-Lysander**; **Miranda-Ferdinand**).
  - ✓ **Nobody died** in either story.
  - ✓ Both plays had a **happy ending.**
  - ✓ There is **confusion** around who characters really are (**the love potion confused Hermia, Helena, Lysander and Demetrius**; **Caliban thought that the butler and jester were important people**).
- ✓ Neither of the plays were set in England.
  - ✓ **'A Midsummer Night's Dream' was set in Ancient Greece**; **the characters in 'The Tempest' were from Milan and Naples.**
- ✓ Both plays had **magic** in them.
  - ✓ **There was a love potion and fairies in 'A Midsummer Night's Dream'; Ariel and Prospero had magic powers in 'The Tempest'.**
- ✓ **Daughters had to obey their fathers** in both plays.
  - ✓ **Egeus tried to force Hermia to marry Demetrius in 'A Midsummer Night's Dream'; Prospero didn't want Miranda to fall in love with Ferdinand immediately in 'The Tempest'.**

Write down 5 5 similarities between A Midsummer Night's Dream and Romeo and Juliet from reading this information.

Now research Shakespeare and create a fact file about his life.

Maths

TASK 1

Examples

1) $3a + 2a = 5a$

2) $3e + 5e = 8e$

3) $4x + x = 5x$

Remember that 'x' is '1x'

TASK 2

Examples

1) $2x + 4x + x = 7x$

2) $b + 2b + b = 4b$

TASK 3

Examples

1) $6e - 4e + 3e = 5e$

2) $8x - 2x + x = 7x$

TASK 4

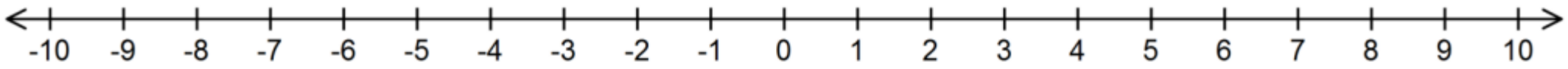
Examples

1) $6e - 4e - e = e$

2) $4x - 3x - 2x = -x$

3) $5y - 4y - 4y = -3y$

Remember to include the '-' if your answer is negative



Maths

TASK 1	TASK 2	TASK 3	TASK 4
1. 5x + 9x	**1.** 7x + 2x + 2x	**1.** 8e - 5e + 5e	**1.** 8f + 3f - 5f
2. a + 3a	**2.** 5x + 7x + 6x	**2.** 6f - 4f + 3f	**2.** 6b + b - 3b
3. 4e + 4e	**3.** 3f + 7f + 7f	**3.** 9d - 2d + 4d	**3.** 7e - 5e - 4e
4. 3x + 7x	**4.** y + 7y + 8y	**4.** 6a - 5a + 3a	**4.** 7c - 6c + c
5. 4x + 9x	**5.** 8f + f + 5f	**5.** 9y - 3y + y	**5.** 8a - a - 3a
6. z + 6z	**6.** 8e + 6e + 3e	**6.** 7z - 6z + 9z	**6.** 7c - 6c + c
7. 4b + 6b	**7.** 7x + 4x + 3x	**7.** 7b - 3b + 5b	**7.** 9c - 4c - 2c
8. 2b + 2b	**8.** 2f + 6f + 8f	**8.** 6z - 3z + z	**8.** 6z - 4z - 2z
9. 7d + 5d	**9.** 6c + 7c + c	**9.** 9x - 4x + 9x	**9.** 7d - d + d
10. 5f + 2f	**10.** 8e + 9e + e	**10.** 8c - 2c + 9c	**10.** 7b - 5b - 5b
11. 5d + 6d	**11.** 2b + 6b + b	**11.** 5b - 3b + 4b	**11.** 7z - z - z
12. 2y + 8y	**12.** 7a + a + 8a	**12.** 7e - 4e + 2e	**12.** 8e - 6e - 4e
13. 8y + 4y	**13.** 2y + 8y + 4y	**13.** 8b - 4b + 5b	**13.** 6c - 3c - 4c
14. 3a + 6a	**14.** 5z + 2z + z	**14.** 7y - 3y + 7y	**14.** 6z + 3z - 2z
15. 7z + 3z	**15.** 8a + a + 4a	**15.** 5f - 2f + 9f	**15.** 8d - 5d - 4d

Science

Introduction to Ecology: Ecology is the study of how living things interact with each other and their environment. It includes understanding food chains, food webs, and how pollutants can accumulate in organisms.
Food Chains: A food chain shows how energy and nutrients flow from one organism to another. Here is an example of a simple food chain:
Sun → Grass → Rabbit → Fox
In this food chain:
The **sun** provides energy for the **grass** (producer).
The **rabbit** (primary consumer) eats the grass.
The **fox** (secondary consumer) eats the rabbit.

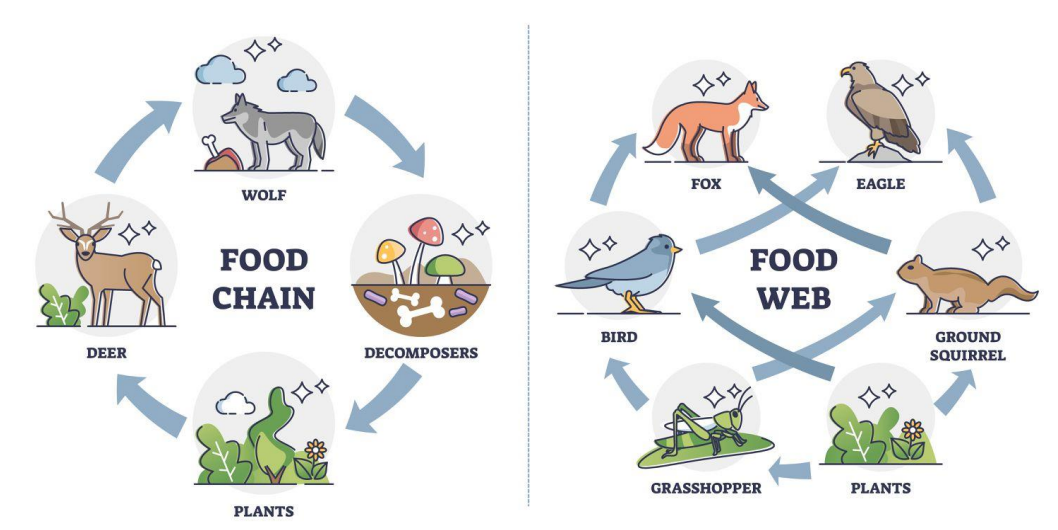
Task 1: Draw your own food chain with at least four organisms. Label each organism as a producer, primary consumer, secondary consumer, or tertiary consumer.

Food Webs: A food web is a more complex diagram that shows how different food chains in an ecosystem are connected. It illustrates the multiple feeding relationships between organisms.

Task 2: Create a simple food web using the following organisms: grass, rabbit, fox, hawk, mouse, and snake. Draw lines to show who eats whom.

Bioaccumulation: Bioaccumulation occurs when pollutants build up in an organism over time. These pollutants can be passed along the food chain, becoming more concentrated in higher-level consumers.
Example: If a small fish eats contaminated algae, and a larger fish eats many small fish, the larger fish will have a higher concentration of the pollutant.

Task 3: Write a short paragraph explaining how bioaccumulation can affect top predators in a food chain. Use the example of a pollutant moving from algae to small fish to larger fish to birds.
Reflection: Think about the following questions and write your answers:
Why is it important to understand food chains and food webs?
How can bioaccumulation impact ecosystems and human health?
What can we do to reduce pollution and its effects on the environment?



Geography

Sustainable Products

Recycling is an important part of designing a product, designers need to think about how the product will be made and disposed of sustainably.

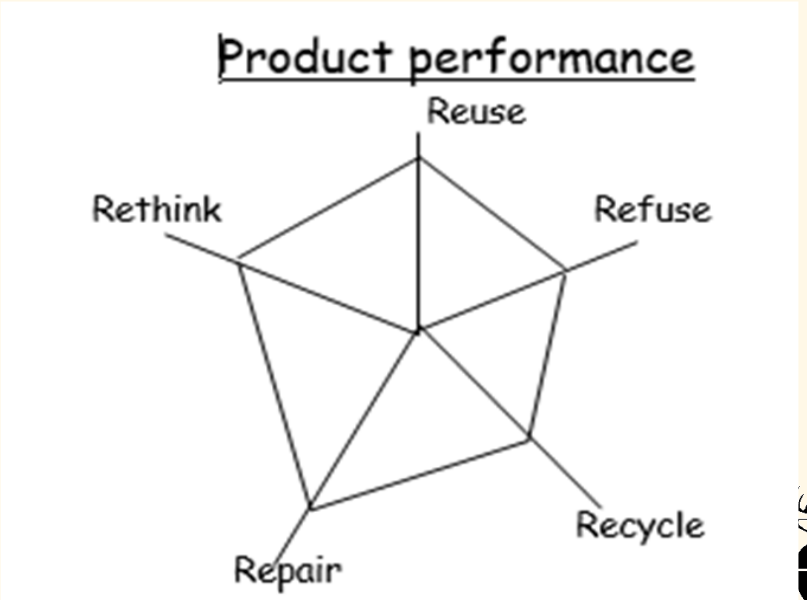
6Rs Keywords:

Reduce-could a reduction in parts used improve sustainability?
Rethink-could another approach to the use of materials improve sustainability?
Refuse- what might put a customer off buying the product?
Recycle-how has the products' "end of life" been considered?
Reuse-is the product able to be reused in some way?
Repair-how can you repair parts of the product or is it disposable?

TASKS:

1.Draw and annotate a bike to show how it could be made more sustainable according to the 6Rs. (One has been done for you)
2. Use the product performance scale to rate its sustainability for each key aspect.
3. How might consumers make informed decisions about the products they are buying?

Rethink-The amount of aluminium used to make the frame or possibly use carbon fibre.



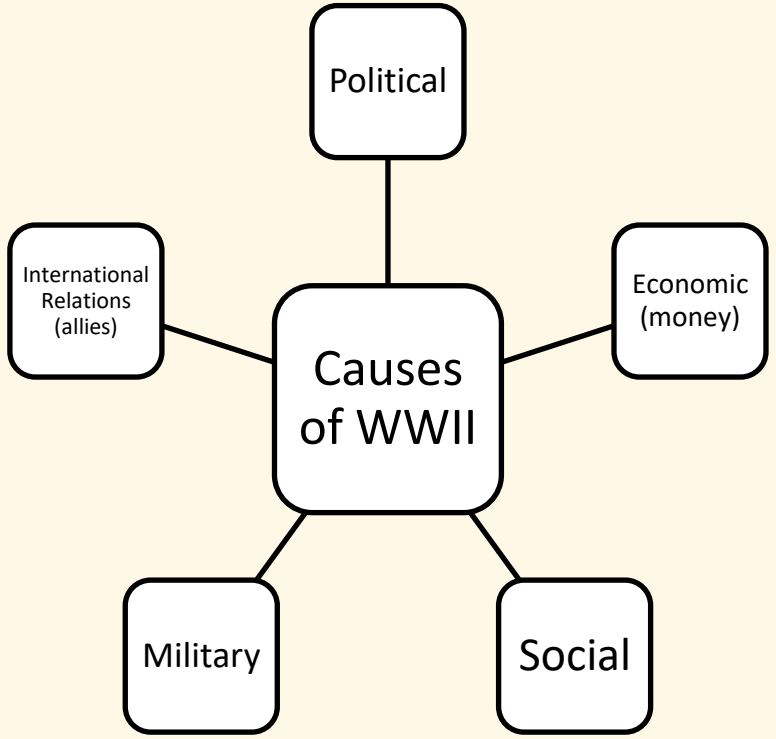
History

The Treaty of Versailles, signed in 1919, ended World War I but left Germany humiliated. Harsh terms like reparations and territorial losses caused resentment. During the 1930s, the Great Depression further destabilized economies worldwide, enabling extremist leaders like Adolf Hitler to rise to power. Hitler's foreign policy included rearming Germany, remilitarizing the Rhineland, and expanding German territory. Britain and France followed a policy of appeasement, allowing Hitler to break the rules of the Treaty of Versailles to avoid another war. Additionally, the League of Nations failed to prevent aggression by Axis powers.

TASK 1: Read the extract above. Answer the following questions in full sentences:

1. What was the Treaty of Versailles, and why did it anger Germany?
2. How did the Great Depression contribute to the rise of extremist leaders?
3. What is the concept of appeasement? Why did this not work?
4. How did Hitler's actions challenge the Treaty of Versailles?

TASK 2: Complete the mindmap of the causes of World War II:



TASK 3: Write a paragraph explaining which cause you think was the most important and why.