Year 9 Work Pack

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

English

These were some of the features of a tragedy when Shakespeare was writing.

1. It has a **sad ending**, usually including a **death.**
2. There are **deaths** in the play.
3. There is at least one **murder plot**.
4. The play usually involves 'high' characters, like kings, queens, princes, princesses, lords and ladies.
5. In tragedy, **there can be confusion** around who, or what, characters really are.

Vocabulary: Tragedy

The word '**tragedy**' is a **noun**. It is a **naming word**:

- 'Romeo and Juliet' is a tragedy.
- It was a tragedy when we got knocked out in the last second of the game.
- The tragedy occurred on the East coast at dawn this morning.

Vocabulary: Tragic

The word '**tragic**' is an adjective. It **describes** something as being very sad, or as part of a tragedy:

- Thankfully, nobody died in the **tragic** accident.
- The radio played an oddly appropriate backdrop to the event, sounding slightly **tragic**.
- Friar Lawrence is one of the first people to find the **tragic** bodies of Romeo and Juliet.

Read this information

English

From the information you have read – write these sentences out and complete them.

Task: What is the correct word to enter in these sentences: tragedy or tragic?

1. 'Othello' is another famous _____by Shakespeare.
2. When he found out the _____ news, he had to leave work early.
3. When the_____struck, there was a special news bulletin.
4. It was a _____ night: nobody had showed up to the party.
5. To begin with, the play seemed like a comedy, however, it had a _____ ending.
6. Thankfully the parachute opened in time and we avoided a _____.

Maths

TASK 1

Examples

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

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

3) $5y - 6y - y = -2y$

Remember that 'y' is '1y'

TASK 2

Example

$2a + 3b + 4a + 2b$

$2a + 3b + 4a + 2b =$

$2a + 4a + 3b + 2b =$

$6a + 5b$

You cannot 'mix' your a's and b's

TASK 3

Make sure you check the signs in front of the terms

Example

$4a + 6b - 3a - 4b =$

$4a - 3a + 6b - 4b =$

$a + 2b$

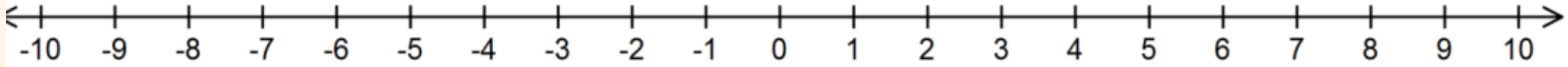
TASK 4

Example

$4a + b - 6a - 3b =$

$4a - 6a + b - 3b =$

$-2a - 2b$



Maths

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

Science

Conduction, Convection, and Radiation

Heat can be transferred from one place to another in three main ways: conduction, convection, and radiation. Each method works differently and is important in our daily lives.

Conduction is the transfer of heat through direct contact. When you touch a hot object, like a metal spoon in a pot of boiling water, heat moves from the hot object to your hand. This happens because the particles in the hot object are vibrating quickly and pass their energy to the particles in your hand. Metals are good conductors of heat because their particles are closely packed and can easily transfer energy.

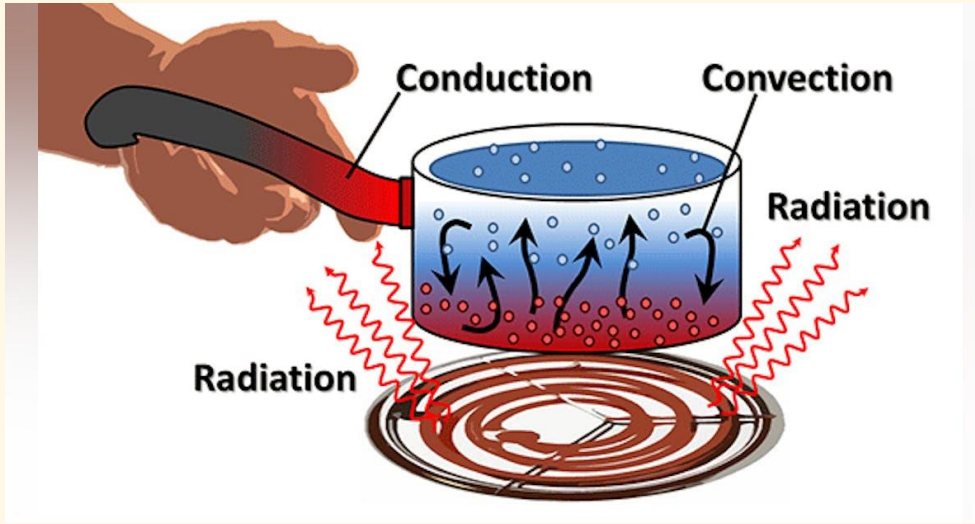
Convection is the transfer of heat through fluids, which can be liquids or gases. When a fluid is heated, it becomes less dense and rises. Cooler fluid then moves in to take its place, creating a cycle called a convection current. This is how heat is transferred in boiling water or in the air. For example, when you heat water in a pot, the water at the bottom gets hot and rises, while cooler water moves down to be heated. This cycle continues until all the water is hot.

Radiation is the transfer of heat through electromagnetic waves. Unlike conduction and convection, radiation does not need a medium (like a solid, liquid, or gas) to transfer heat. This is how the Sun's heat reaches the Earth. You can feel radiation when you stand near a fire or sit in the sunlight. The heat travels through the air and warms you without needing to touch anything.

Understanding these methods of heat transfer helps us in many ways. For example, knowing about conduction can help us choose materials for cooking utensils. Understanding convection helps us design heating and cooling systems for buildings. Knowing about radiation helps us protect ourselves from too much sun exposure.

Questions:

1.What is conduction and how does it transfer heat?
2.Why are metals good conductors of heat?
3.Describe how convection works in boiling water.
4.How does radiation transfer heat differently from conduction and convection?
5.Give an example of how understanding conduction can be useful in everyday life.
6.Why is it important to understand the different methods of heat transfer?



Geography

Sustainability: What Does It Mean?

Sustainability is about using the Earth's resources in a way that does not harm the planet for future generations. It means meeting our needs today without stopping people in the future from meeting theirs. For example, when we use water, plant trees, or build homes, we should do it in a way that keeps the environment healthy and balanced.

One big part of sustainability is protecting natural resources. These are things like water, trees, and minerals that come from the Earth. If we use too much of them, they might run out. For example, forests are cut down to make paper and furniture, but if we don't plant new trees, we could lose forests forever. This is why some companies now promise to plant a new tree for every tree they cut down.

Another part of sustainability is reducing pollution. Pollution can harm animals, plants, and even people. Factories, cars, and rubbish all create pollution. By using cleaner energy like solar or wind power instead of burning coal or oil, we can cut down on pollution. Recycling is also important because it helps turn old materials into new products, which means less waste.

Sustainability also means helping people. Some countries don't have enough clean water, food, or energy. Being sustainable means finding ways to share these resources, so everyone has what they need to live a good life.

Every small action can help! Turning off lights when you leave a room, reusing water bottles, and walking instead of driving are simple ways to make a difference.

Questions

Understanding the Text

1.What does "sustainability" mean?
2.Name two examples of natural resources mentioned in the text.
3.Why is it important to plant new trees when cutting down forests?
4.What are two ways we can reduce pollution?

Thinking Beyond the Text

5.How can using solar or wind power help the environment?
6.Why do some countries need help with resources like clean water or food?
7.List three small actions you can take to help make the world more sustainable.

Challenge Question

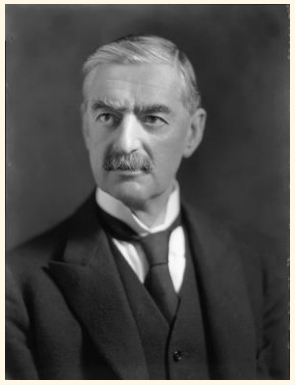
8.Imagine you are in charge of making your school more sustainable. What changes would you suggest and why?

History

"We, the German Führer and Chancellor, and the British Prime Minister, have had a further meeting today and are agreed in recognizing that the question of Anglo-German relations is of the fist importance for the two countries and for Europe.

We regard the agreement signed last night and the Anglo-German Naval Agreement as symbolic of the desire of our two peoples never to go to war with one another again. [cheers]

We are resolved that the method of consultation shall be the method adopted to deal with any other questions that may concern our two countries, and we are determined to continue our efforts to remove possible sources of difference and thus to contribute to assure the peace of Europe." [cheers]



TASKS: Read the speech. This was delivered by Neville Chamberlain about the policy of appeasement. Complete the following activities:

1. Make a note of examples of rhetorical devices such as repetition, emotive language, how Chamberlain demonstrates his authority
2. Write an analysis of what effect these techniques had, and how Chamberlain aimed to justify appeasement
3. Write a speech in response to Chamberlain from today's perspective. Outline why this policy is not going to be successful and attempt to persuade him not to continue to try and prevent the Second World War.

Spanish

¿Qué tipo de música te gusta? Termina la frase.

1	❤️❤️❤️ Me encanta…	4	❤️ No me gusta…
2	❤️❤️ Me gusta mucho…	5	❤️❤️ No me gusta nada…
3	❤️ También me gusta…	6	 A veces escucho…

Copy and complete the phrases 1-6 in your books

with your opinion

Remember to use **el** or **la**

Challenge: use another phrase for **how often** you listen to music