

Week beginning – Monday 22nd February 2021

Please remember to submit all completed learning to the Remote Learning account of the Academy, the email address is:

- Remote-Learning@twapa.co.uk

KS4 English

Lesson 1

Lesson Objective:

- To identify and understand different types of language used within the extract.

Success Criteria:

- Bronze: I can identify at least three different devices within the extract.
- Silver: I can identify a range of different devices and I am beginning to consider the effect of these.
- Gold: I can confidently identify a range of different devices and can explain why the writer has used these.

This week we will be continuing to focus the effect of language within texts.

In your English Language Reading Skills: Non-Fiction Workbook, read page 56. While you are reading, highlight the words you do not understand. Use the techniques we use in school to help you decode these words:

First, SOUND out words new to you. Use simple phonics to attempt a pronunciation. You might recognize the word when you hear it.

Next, examine the STRUCTURE. Look for familiar word parts.

Then look at the CONTEXT. Guess at the word's meaning from the way it is used in the sentence. You may be able to tell the meaning by the way the passage continues.

Check the DICTIONARY.

Write a summary of the extract or explain to an adult what the extract is about. This is a good way to make sure you understand the text.

Answer the questions on pages 57 - 58 of the English Language Reading Skills: Non-Fiction Workbook. You need to answer all questions in full sentences using correct punctuation. When answering question 4, you need to use PEE paragraphs. Make sure you include a short quotation from the extract.

Lesson 2

Lesson Objective:

- To explore the effect of different language devices on the reader.

Success Criteria:

- Bronze: I can identify at least three different devices within the extract.
- Silver: I can identify a range of different devices and I am beginning to consider the effect of these.
- Gold: I can confidently identify a range of different devices and can explain why the writer has used these and the impact on the reader.

Today we are looking at another extract. Remember to refer to the glossary at the bottom of the page to help with any words and phrases which are unfamiliar.

In your English Language Reading Skills: Non-Fiction Workbook, read page 59. While you are reading, highlight the words you do not understand. Use the techniques we use in school to help you decode these words. Re-tell or summarise the extract to check your understanding. Answer the questions on pages 60 - 61. You need to use quotes to support your ideas. Try to find supporting evidence from the extract for each question. Remember to write using PEE paragraphs for question 3. Creating a plan will help you to organise your ideas.

Lesson 3 – Blood Brothers

Lesson Objective:

- To explore the theme of identity in Blood Brothers.

Success Criteria:

- Bronze: I can explain events in Act 1.
- Silver: I can clearly explain events in Act 1.
- Gold: I can confidently explain events in Act 1.

This week we are going to review the entire play in sections. In your Blood Brothers Text Guide, read pages 10 - 13. This gives you an overview of Act 1.

Create a timeline of the main events. Include key quotes and any important information about characters and themes.

Lesson 3 – An Inspector Calls

Lesson Objective:

- To explore Act 1 of An Inspector Calls.

Success Criteria:

- Bronze: I can explain events in Act 1.
- Silver: I can clearly explain events in Act 1.
- Gold: I can confidently explain events in Act 1.

This week we are going to review the entire play in sections. In your An Inspector Calls Text Guide, read pages 6 - 8. This gives you an overview of Act 1.

Create a timeline of the main events. Include key quotes and any important information about characters and themes.

Lesson 4 – Blood Brothers

Lesson Objective:

- To explore Act 2 of Blood Brothers.

Success Criteria:

- Bronze: I can explain events in Act 2.
- Silver: I can clearly explain events in Act 2.
- Gold: I can confidently explain events in Act 2.

This week we are going to review the entire play in sections. In your Blood Brothers Text Guide, read pages 14 - 17. This gives you an overview of Act 2.

Add the main events to your timeline. Include key quotes and any important information about characters and themes.

As an extra challenge, you can now complete the practice questions on page 18 of your text guide. Highlight the questions you get wrong and make sure you are familiar with the correct answer.

Lesson 4 – An Inspector Calls

Lesson Objective:

- To explore Act 2 in An Inspector Calls.

Success Criteria:

- Bronze: I can explain events in Act 2.
- Silver: I can clearly explain events in Act 2.
- Gold: I can confidently explain events in Act 2.

This week we are going to review the entire play in sections. In you're an Inspector Calls Text Guide, read pages 9 - 11. This gives you an overview of Act 2.

Add the main events to your timeline. Include key quotes and any important information about characters and themes.

KS4 Maths

Lessons 1 & 2: Sectors and Arcs

Learning Objectives:

- Understand how to find the area of a sector of a circle.
- Understand how to find the length of an arc.

Success Criteria:

- You will be able to find the area of a sector of a circle.
- You will be able to find the length of an arc of a circle.

Read through your Revision Guide on page 79. It details how to solve the questions. For example, it tells you the formula to find the area of a circle and the formula to find the circumference of a circle. In addition to that, you need to know two key terms. These are 'radius' which is the distance from the centre to the edge of a circle and 'diameter' which is the distance across the middle of the circle from edge to edge. You will also need to understand what an Arc Length is and how to work out the area of a sector. This will be helpful in the next task.

Answer the questions in your Workbook on page 67 and 68. This was set for last week. Please make sure you have completed them, it is important.

This week I want you to push it further and try the questions in the following link. This requires more work. Completing the work last week will not be enough. Please take your time and think about it. Make sure you use your calculator.

<https://www.mathsgenie.co.uk/resources/5-sector-area-and-arc-length.pdf>

The solutions which also show you some working out can be found on the following link:

<https://www.mathsgenie.co.uk/resources/5-sector-area-and-arc-lengthans.pdf>

Lesson 3: Similar Shapes

Learning Objective:

- Understand how to find the angle in similar shapes.

Success Criteria

- You will understand the difference between congruence and similarity.
- You will be able to find the length of a line on a 2D shape based on a similar shape.

Read through page 75 in your Revision Guide titled 'Similar Shapes'. Make sure you take your time and read the content slowly. It is a lot to take in. Write the key words down and the key points. You will notice that similar shapes are usually the same just enlarged by a scale factor. You will notice this as you work your way through the worked examples in your Revision Guide.

Before trying the questions make sure you watch this video which explains the content very well.

<https://www.youtube.com/watch?v=v1Q4AtjXOB0>

Once you feel you understand the content, try the questions in your Workbook on page 62. There are only three questions but they are tricky and would appear in the latter stages of the foundation paper.

KS4 Biology

Diffusion, Osmosis and Active Transport

Last week, we learned about reproduction. This week, we will be exploring how substances move in and out of cells.

All cells have a cell membrane. This membrane controls what goes into and out of the cells. Some substances, such as gases and water, can pass across the membrane easily by diffusion. However, other substances, such as glucose, need to be transported across the cell membrane. Therefore, the membrane is partially permeable - it controls which substances can travel across it easily.

Lesson 1: Diffusion

Learning Objective:

- To describe diffusion.

All	State what diffusion is
Most	Describe examples of diffusion in the body
Some	Explain what factors affect the rate of diffusion

Diffusion is the movement of a substance from an area of high concentration to an area of low concentration. Diffusion happens in liquids and gases because their particles move randomly from place to place. Diffusion is an important process for living things; it is how substances move in and out of cells.

Read page 34 of the Biology Complete Revision and Practice book.

Please copy and fill in the blanks.

Diffusion is the _____ of particles in a fluid from one region to another. It occurs

because of two properties of fluids: the particles have _____ between them and can _____.

If we start off with two types of fluid which are separated, and then _____ the barrier which is separating them then _____ will occur. The particles from both regions will _____ and move in the spaces between other particles. The particles of each fluid will continue to mix until they are _____ distributed. Diffusion _____ happen in solids because their particles cannot move around.

diffusion move about remove spaces spread out evenly can't movement

Lesson 2: Osmosis

Learning Objective:

- To describe osmosis

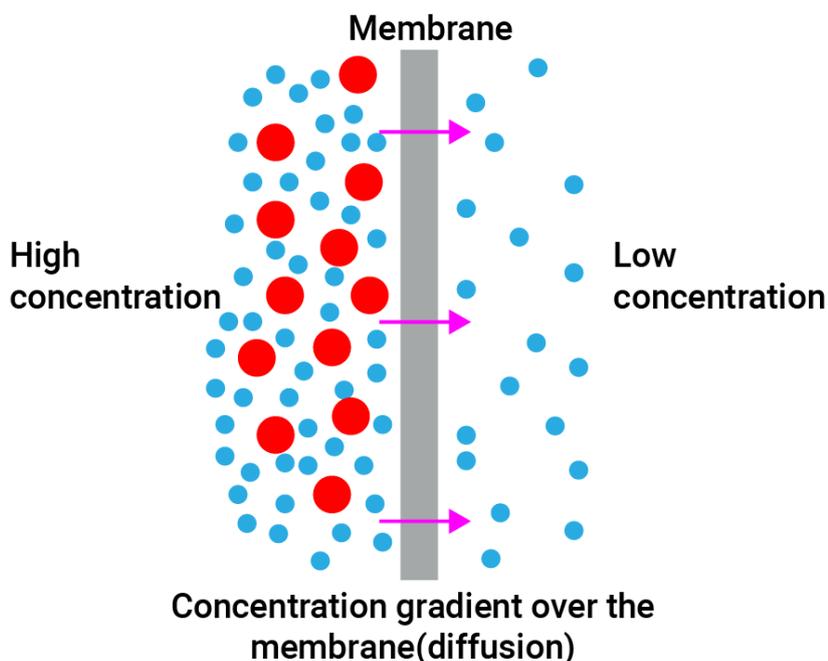
All	State what osmosis is
Most	Describe examples of osmosis in the body and in plants
Some	Explain what factors affect the rate of diffusion

Osmosis is the diffusion of water molecules, from a region where the water molecules are in higher concentration, to a region where they are in lower concentration, through a partially permeable membrane.

Read page 35 of the Biology Complete Revision and Practice book.

Complete the practice questions on page 42 and 43 of the Biology Complete Revision and Practice book.

- What is osmosis?
- Explain what happens to red blood cells when they are placed in pure water?
- Why do plant cells become flaccid in concentrated sugar solutions?



Lesson 3: Active Transport

Learning Objective:

- To describe active transport

All	State what active transport is
Most	Describe examples of active transport in the body and in plants
Some	Explain what factors affect the rate of active transport

Substances are transported passively down concentration gradients. Often, substances must be moved from a low to a high concentration - against a concentration gradient.

Active transport is a process that is required to move molecules against a concentration gradient.

- The process requires energy.

For plants to take up mineral ions, ions are moved into root hairs, where they are in a higher concentration than in the dilute solutions in the soil. Active transport then occurs across the root so that the plant takes in the ions it needs from the soil around it.

In animals, glucose molecules must be moved across the gut wall into the blood. The glucose molecules in the intestine might be in a higher concentration than in the intestinal cells and blood – for instance, after a sugary meal – but there will be times when glucose concentration in the intestine might be lower.

All the glucose in the gut needs to be absorbed. When the glucose concentration in the intestine is lower than in the intestinal cells, movement of glucose involves active transport. The process requires energy produced by respiration.

Read page 37 of the Biology Complete Revision and Practice book.

Please copy and complete the table below.

Transport Summary – complete the table with ✓ or x in each space

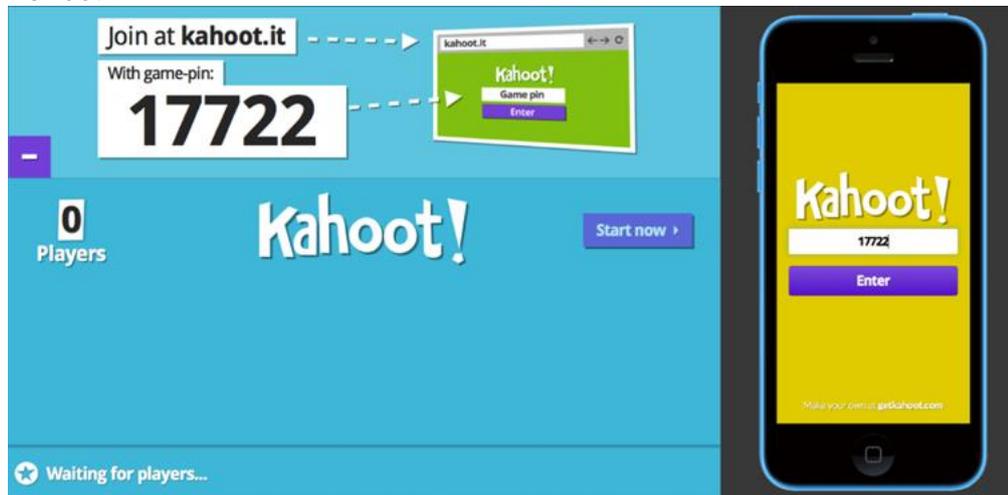
	Diffusion	Osmosis	Active Transport
Substances move from high to low concentration			
Happens in plants			
Happens in animals			
Requires energy			
Involves a membrane			
Involves water only			
Substances move against a concentration gradient			
How oxygen moves from alveoli to the blood			
How minerals move into root hair cells			
Enables plant cells to stay turgid			

Wider Learning

BBC Bitesize has a variety of different videos, tests and games that will test your knowledge. Please watch all the videos on diffusion, osmosis, and active transport, and complete the revision test.

<https://www.bbc.co.uk/bitesize/guides/zc7k2nb/revision/1>

Kahoot



Cell Transport

- Game PIN: 005484705

Careers

- Game PIN: 003422935