

English for Starters

Eleventh Grade

Literary Section

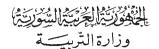
Scientific section

Teacher's Book

Committee of Authors







English for Starters

Eleventh Grade Literary and Scientific Sections

Teacher's Book

Committee of Authors



حقوق التوزيع في الجمهورية العربية السورية محفوظة للمؤسسة العامة للطباعة

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What is Literature?

Introduction

The importance of literature in the history and ongoing development of human civilisation cannot be underestimated. Literature is both a mirror that reflects the inner soul of people and a pathway towards a deeper understanding of cultures and societies. It is also a source of personal pleasure and enrichment.

Objectives

After completing the lesson, students will be able to:

- describe what literature is and explain why it is valuable;
- explain why it is useful to be able to read and analyse literature.

Reading literature is an act of communication.

When a student or an adult reads a book outside school, he/she usually wishes to express his/her opinions about it. The pooling of contrasting ideas and the sharing of feelings are natural follow-ups to reading. What takes place outside the classroom should also take place inside the classroom.

How to teach literature?

The literature classroom should be a stimulating communicative forum in which, with the teacher as guide and mentor, the student becomes an active explorer who gradually acquires the skills and tools he/she needs to discover the richness of what he/she is reading.

So the teacher may first introduce what literature is referring to the three sections 'What is literature?', 'Why read literature?' and 'Why analyse literature? (pages 7-8; these sections are not to be read in class). The teacher elicits responses from students to offer them deeper involvement in the learning task.

Introduction WHAT IS LITERATURE?

Since the beginning of civilisation¹, many men and women have felt a need to communicate their thoughts and feelings to a wider world outside their circle of family, friends and acquaintances². Thanks to the invention of writing and printing, they have been able to hand down a priceless treasury of manuscripts³ and books to people after them.

Literature is generally thought to mean those pieces of writing which, even though many years and even centuries have passed, still inspire admiration, reflection and emotion in readers. Poems, plays, novels and short stories in a particular language that have stood the test of time together make up a body of national literature.

Glossary

- 1 **civilisation:** people living together in a well-organised and developed way
- 2 acquaintance: someone you know, but who is not a close friend
- 3 **manuscript:** a book which was written by hand, not printed
- 4 inspire: to make someone have a particular feeling
- 5 **to stand the test of time:** to be popular for a long time
- 6 **critic:** someone whose job is to write about art, books, films, etc.
- 7 **definition:** a word or sentence that says exactly what something is
- 8 **genre:** a type of literature, art, film or music

Does this mean that only older works can be called **literature**? Today, millions of books are produced every year, but only some of them get into literary magazines or onto the literary pages of newspapers. In these cases, it is the critics⁶ and not time that decide what is and what is not literature. Future generations will have to decide if the critics made the right choices.

It is not easy to give an exact definition⁷ of what literature is because it is always changing. Throughout history, different writers, genres⁸ and styles of writing have been popular. Even today, people argue about whether more popular forms of fiction such as detective stories can be called literature. We can let the critics argue about these things because for readers, literature is simply beautiful, meaningful writing.



WHY READ LITERATURE?

The most obvious¹ answer to this question is because it is enjoyable. Everybody loves a good story, and many great works of literature tell memorable stories. These stories allow us to escape from our daily lives by taking us to different times and places. We can travel through the African jungle with Joseph Conrad, or we can be sent into the future by science fiction writers like H.G. Wells. Literature is a source² of knowledge and information, too. Almost every poem, play or novel we read gives us more information about the world we live in. Perhaps the most important reason for reading literature is because it breaks down the barriers³ between us.

Literature also invites us to share in many different human experiences that we cannot usually experience. It allows us to leave behind our age, family background and economic condition so that we can see the world from the perspective of people who are different from us. Great writers make us understand how other people think and feel. Literature makes us feel emotion. It comforts, shocks, makes us laugh, frightens and challenges us. It helps us to understand ourselves and others. Literature widens our field of vision.

WHY ANALYSE LITERATURE?

Literary analysis happens whenever someone tries to understand a literary text. Every time we close a book and think about what we have read, we are doing some form of literary analysis. Taking an analytical approach⁵ to literature involves observing carefully and drawing conclusions. It is not simply a question of taking a poem or story apart and naming the pieces; it means discovering patterns of meaning and understanding what the writer wants to say. Literary analysis is a way of learning more about how literary texts are structured. The more we learn about the art of writing, the more we will be able to understand new ideas when we read. The analytical approach also gives us the vocabulary we need to define and communicate our ideas about literary texts. Before we analyse a text we should know

Glossary

- 1 **obvious:** easy to notice or understand
- 2 **source:** a place from which you can get something
- **barrier:** something that keeps people apart
- 4 analyse (noun: analysis): to look at something carefully in order to understand it
- approach: way of doing somethingevent: a thing that happens
- 7 exchange: to give something to someone and receive something else from them

its setting (where and when it happens); what the plot is (the main events⁶ that make up the story); and who the characters are (the people in the story or poem). Having a clear idea about these things help us to exchange⁷ opinions and talk about literature.

What is Poetry?

One modern poet, when asked the question "What is poetry?", replied that poetry, unlike prose, is a form of writing in which few lines run to the edge of the page! The poet Robert Frost argued that "poetry is the kind of thing poets write". While these replies, at first, may not seem serious, they inadvertently¹ reveal two important aspects of poetry: the first answer tells us that the arrangement of the words on the pages is an important element of poetry, while the second emphasises that there is a special 'poetic' way of using language. A working definition may be, then, that poetry comes from the interplay² between the meaning of words and their arrangement on paper; or – as the English poet Samuel Taylor Coleridge put it – "poetry is the best words in their best order".

Although poems come in all shapes and sizes, they share certain characteristics. Imagery, metaphors and symbols make poetry dense³ with meaning. Sound features, such as rhyme, rhythm and repetition, give the language a special musical quality. The usual rules of grammar and syntax are often ignored, so that the language may be used in a striking or original way. Poetry, like all literature, is the way a writer tries to communicate to others his emotional and intellectual response⁴ to his own experiences and to the world around him. The poet puts words together to make the reader feel and experience what he has experienced.

NILLIAM SHAKESPEARE

(1564-1616) William Shakespeare is the most highly regarded poet and playwright in the English language. He was born in the English town of Stratfordupon-Avon and went to London when he was a young man. There, he began writing and acting in plays. Shakespeare wrote at least thirty-seven plays, as well as several long, narrative poems and more than one hundred and fifty shorter poems called sonnets.

Glossarv

inadvertently: unintentionally

interplay: interaction

dense: filled, packed

response: answer, reaction

Juliet: "What's in a name? That which we call a rose By any other name would smell as sweet."

Romeo and Juliet (Act II, Scene 2)

What is Poetry?



SHALL I COMPARE THEE

by William Shakespeare

Analysis

Objectives

After completing the lesson, students will be able to:

- describe what poetry is and distinguish it from other genre of literature;
- talk briefly about the career of William Shakespeare;
- show how Shakespeare's line of thought develops in his sonnet, 'Shall I Compare Thee';
- identify the main themes of the poem 'Shall I Compare Thee'.

[Line 9] The friend's 'summer' or 'prime of life' will remain eternal because the poet immortalises him in verse. Lines 10-14 confirm this reading.

[Line 12] Because of the poet's verse, the friend will actually grow as one with time ('to time thou growest').

'Shall I Compare Thee' is perhaps the best known and most well-loved of all 154 poems. It is also one of the most straightforward in language and intent. The stability of love and its power to immortalise the poetry and the subject of that poetry is the theme. The poet starts the praise of his dear friend without ostentation, but he slowly builds the image of his friend into that of a perfect being. His friend is first compared to summer in the octave, but, at the start of the third quatrain (9), he is summer, and thus, he has metamorphosed into the standard by which true beauty can and should be judged. The poet's only answer to such profound joy and beauty is to ensure that his friend be forever in human memory, saved from the ultimate oblivion that accompanies death. He achieves this through his verse, believing that, as history writes itself, his friend will become one with time (or, more informally, keep up to time). The couplet reaffirms the poet's hope that as long as there is breath in mankind, his poetry too will live on, and ensure the immortality of his muse.

Answers

- 1 She is more beautiful and more temperate and she does not fade away like a summer's day.
- 2 The 'eye of heaven' is the sun. It is dimmed by clouds and bad weather.
- 3 Because she will be immortalised in poetry.
- 4 students' own answers

How to Teach Poetry?

The teacher may assign poems to be read individually at home with prior introduction in class. An alternative may be to play the tape in class for students to listen and respond to. Then the teacher may choose to ask students to work in pairs or groups to discuss the comprehension questions and present to whole class orally or in written form.

by William Shakespeare

Shall I compare thee' to a summer's day? Thou art 2 more lovely and more temperate: Rough winds do shake the darling buds 3 of May, And summer's lease hath all too short a date 4:

Sometime too hot the eye of heaven shines, And often is his gold complexion dimmed's, And every fair from fair sometime declines 6, By chance, or nature's changing course, untrimm'd.

But thy eternal summer shall not fade o, Nor lose possession of that fair thou owest", Nor shall death brag 12 thou wander'st 13 in his shade, When in eternal lines to time thou growest.

So long as men can breathe or eyes can see, So long lives this, and this gives life to thee.

Glossary

- thee: you
 - thou art: you are
 - buds: unopened flowers
 - lease...date: does not last long

 - dimmed: made less bright
 - every fair...declines: beautiful things become less beautiful
 - 7 by chance: accidentally
 - 8 untrimm'd: had all beauty cut
 - 9 thy: your
 - 10 fade: become less strong
 - 11 owest: possess
 - 12 brag: boast, say
 - 13 wander'st: walk around directionless

Comprehension

- 1 Why is the poet's addressee better than a summer's day, according to lines 1–4?
- What is 'the eye of heaven'? When is its 'gold complexion dimmed'?
- Why won't the friend's 'eternal summer' fade?
- Oo you agree with the last two lines of the poem? Give reasons for your answer.

Paraphrase

Shall I compare you to a summer's day? You are lovelier and gentler: Rough winds shake the beautiful buds of May, And summer is far too short:

Sometimes the sun is too hot And it often goes behind the clouds, And everything that is beautiful loses its beauty, Either by chance or in the course of nature.

But your youth will not fade, Nor will you lose the beauty that you possess, Nor will death boast that you are his, Because you will live forever in my eternal poetry.

For as long as there are people on this earth, This poem will live on, keeping you alive.

WHEN, IN DISGRACE WITH FORTUNE...

by William Shakespeare





Objectives

After completing the lesson, students will be able to:

- talk about the background to Shakespeare's sonnet, 'When, in Disgrace with Fortune...';
- contrast the gloomy mood of this sonnet with the happier mood of 'Shall I Compare Thee'.

Sometimes editors report that, in lines 5 and 6, the poet is referring to his friend. However, if lines 13 and 14 are addressed to the friend, then the previous reference to the friend in lines 6 and 7 seems out of place and illogical. It makes more sense to assume that lines 5 and 6 are not addressed to one person in particular, in keeping with the later references to 'this man's art' and 'that man's scope'.

This sonnet shows us the poet at his most insecure and troubled state. He feels himself unlucky, disgraced and jealous of those around him. What is causing the poet's anguish one can only guess, but an examination of the circumstances surrounding his life at the time he wrote this sonnet could help us to understand his depression. In 1592, the London theatres closed due to a severe outbreak of the plague. Although it is possible that Shakespeare toured the outlying areas of London with acting companies, it seems more likely that he left the theatre entirely during this time, possibly to work on his non-dramatic poetry. With plague and poverty threatening his life, it is only natural that he felt 'in disgrace with fortune'. The poet is so forlorn that even the passion for his profession as an actor seems to have died. But the sonnet ends with a positive affirmation that all is not lost and that the poet's dear friend can compensate for the grief he feels.

nswers -

- 1 He's become unsuccessful and he's no longer lucky. Therefore, people are looking down upon him.
- 2 No, his prayers have gone unheard.
- 3 According to lines 9–10, thinking of the one he loves brings him happiness.

WHEN, IN DISGRACE WITH FORTUNE

by William Shakespeare

When, in disgrace 'with fortune and men's eyes

I all alone beweep my outcast 2 state

And trouble deaf heaven with my bootless cries

And look upon myself and curse 3 my fate,

Wishing me like to one more rich in hope,

Featured like him, like him with friends possessed,

Desiring this man's art and that man's scope,

With what I most enjoy contented least;

Yet in these thoughts myself almost despising 4,

Haply I think on thee, and then my state,

Like to the lark at break of day arising

From sullen earth, sings hymns 5 at heaven's gate;

For thy sweet love remembered such wealth brings

That then I scorn 6 to change my state with kings.

Glossary

- disgrace: the loss of other people's respect
- 2 outcast: someone who is not accepted by society
- 3 curse: to say or think bad things about someone or something because they have made you angry
- 4 despising: disliking
- 5 hymns: songs of praise to God
- 6 **scorn**: to show that you think that something is stupid or unreasonable

Comprehension

- 1 What are the reasons for the poet being an outcast?
- 2 Are his prayers being answered?
- 3 According to lines 9–10, what brings him happiness?

Paraphrase

When I've run out of luck and people are looking down on me, I cry about my fate as an outcast, all alone, And pray uselessly to heaven, which does not hear, And look at myself, cursing my fate, Wishing I were like someone with more hope in life, Wishing I looked like him, wishing I were surrounded by friends, Wanting this man's skills and that man's opportunities, And I am least happy about what I used to enjoy most; But as I'm thinking this and almost hating myself, I think of you and then my state of sadness, Like the lark at the break of day, rises
From the gloomy earth and I sing hymns to heaven; For thinking of your love makes me so happy
That I would not want to change places with a king.

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Objectives

After completing the lesson, students will be able to:

- list and describe the main events of John Keats' brief life;
- explain some of the rich vocabulary used in his sonnet 'O Solitude!'

(Written in October or November, 1815; published in the *Examiner* in May 1816 and in Poems in 1817.)

This sonnet, the first of Keats's poems to be published though by no means the first that he composed, was written while Keats was a medical student and living in a crowded and poverty-stricken district near Guy's Hospital. Like many of his later poems, it expresses his unhappiness with his present circumstances and his longing to escape to a world of natural beauty and happiness. He personifies his lonely mood as the powerful, godlike figure of solitude whose company he cannot avoid. He begs to be allowed to endure his isolation away from the city's squalor, among mountains or in deep woodlands. Then it occurs to him that his pleasure would be made almost perfect if he were allowed the company of one sympathetic friend. The rather formal air of the sonnet is reinforced by the archaic forms, 'thee' and 'thy', and there is little immediacy in the imagery of the natural landscape. The 'jumbled heap/Of murky buildings' registers as the most powerfully felt detail in the poem.

4nswers

- 1 The area he is living in is a jumbled (mixed up) heap of buildings. The buildings are not nice. They're murky and dark. The area is crowded and poverty-stricken.
- 2 He longs to escape his circumstances of living in a poor crowded residential area of the city, to the pleasant green countryside.

JOHN KEATS

(1795-1821) John Keats was an English poet. He was born in London on October 31st, 1795 in Finsbury. He is considered one of the greatest English poets. Keats attended school at Enfield, where he became the friend of Charles Cawden Clarke, the headmaster's son, who encouraged his early learning. In 1810, he started working with a surgeon. In 1816, he gave up surgery to write poetry. His first volume of poems appeared in 1817.



He contracted tuberculosis, probably from nursing his brother Tom, who died in 1818. Keats sailed for Italy shortly after the publication of Lamia, Isabella, the Eve of St Agnes and Other Poems (1820), which contain most of his important work and is probably the greatest single volume of poetry published in England in the 19th century. He died in Rome on February 23rd 1821, at the age of 25.

by John Keats

O Solitude! If I must with thee dwell, Let it not be among the jumbled heap Of murky buildings; climb with me the steep ',-Nature's observatory 2— whence the dell, Its flowery slopes, its river's crystal swell, May seem a span 3; let me thy vigils 4 keep 'Mongst boughs pavillion'd, where the deer's swift leap Startles the wild bee from the fox-glove bell. But though I'll gladly trace these scenes with thee, Yet the sweet converse of an innocent mind, Whose words are images of thoughts refin'd, Is my soul's pleasure; and it sure must be Almost the highest bliss of human-kind, When to thy haunts two kindred spirits 5 flee.

Glossary

- **steep:** mountainside **nature's observatory:** natural vantage point from which to view the stars and the distant landscape
- span: handspan, the distance between thumb and little finger tips
- vigils: night-long sessions of prayer and fasting
- two kindred spirits: the poet's companion could have been his friend, George Felton Mathew, one of Keat's brothers or a purely imaginary being

Comprehension

- What kind of area of the city is the poet living in?
- Where does he dream of going?

Paraphrase

Oh loneliness! If I must live with you, May it not be in the untidy pile Of dark buildings; climb with me up the hill, To a viewing spot of nature, from which the small valley, With flowers on its slopes and the sparking stream, May seem to stretch far; let me sit up Among the branches that shelter, where a deer's jump Frightens the bee away from the flower. But although I'll be happy to see these things with you, The happy thoughts of an innocent mind, Whose words are just pleasant pictures, Are my deepest pleasure; and it must be Nearly the happiest a human can be, When two friends run to nature.



Objectives

After completing the lesson, students will be able to:

- describe how Keats uses rhythm and other effects of language in his sonnet 'On the Sea':
- contrast the impersonal approach of this poem with the highly personal 'O Solitude!'.

(Written in April, 1817; published in the *Champion* in August 1817.) The octave of the sonnet is devoted to a description of the sea, emphasising its vastness and its changing moods. Keats had seen the sea for the first time when he visited Margate in the summer of 1816 and he had been struck then by huge and ever-changing expanse. In this sonnet, the gentle mood of the

sea is emphasised by the hushed-sound quality of Keats's vocabulary, as 'eternal whisperings', 'shadowy sound' and 'gentle temper'. Notice the wave-like effect of the rhythm of the first two long sentences with their run-on lines (lines 1-4 and 5-8). The poem lulls and soothes the ear just as the sight of the sea calms the turbulent spirit.

The sonnet is an exhortation to the reader or listener who is surfeited with the sights and sounds of busy, everyday life to find more sustaining nourishment in contemplation of the vastness of the sea. In this sonnet, the beauty of the natural world is also regarded as food for the soul. 'On the Sea' is a much less personal poem than 'O Solitude'; the word 'I' does not occur in the poem, and the poet does not interpose his own feelings between the reader and the objects he describes.

nswers

- 1 The poet uses words like 'eternal', meaning 'never ending' and 'mighty', meaning 'large' and 'powerful'.
- 2 He gives the sea human charachteristics by mentioning qualities like 'temper' and 'whisperings'.

On the Sea

It keeps eternal whisperings around

Desolate shores, and with its mighty swell

Gluts twice ten thousand Caverns, till the spell

Of Hecate ' leaves them their old shadowy sound 2.

Often 'tis in such gentle temper found, 5

That scarcely will the very smallest shell

Be moved for days from where it sometime fell.

When last the winds of Heaven were unbound.

Oh ye! who have your eyeballs vex'd and tir'd,

Feast them upon the wideness of the Sea; 10

Oh ye! whose ears are dinn'd with uproar rude,

Or fed too much with cloying melody

Sit ye near some old Cavern's Mouth, and brood

Until ye start, as if sea-nymphs quir'd 3!

Glossary

- Hecate: Greek goddess of the moon, the night and the underworld; as the moon-goddess, she controls the tides
- 2 shadowy sound: usually associated with sight, here describes the sound of the waves, and suggests both faintness and indistinctness as well as the darkness of the caves from which the sound comes
- quir'd: sang in chorus

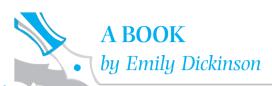
Comprehension

- What words does the poet use to evoke the vastness of the sea?
- 2 Describe how he personifies the sea.

Paraphrase

It keeps everlasting whispers hanging
Over empty shores, and with its mighty noise
Fills 20,000 caves, until the darkness
Of night leaves its shadowy silence.
Often it is in such a gentle mood,
That the smallest shell would be hardly
Moved for days from where it fell.
When strong winds blew it.
You! whose eyes are sore and tired,
Just look at the open sea;
You! whose ears are tired with the noise of the city,
Or with superficial, annoying music,
Sit by the mouth of an old cave and think
Until you feel as refreshed as if sea fairies had sung to you!

Figures of Speech



Analysis

Objectives

After completing the lesson, students will be able to:

- compare and contrast the terms 'Metaphor', 'Simile' and 'Personification';
- identify figures of speech in one poem by Emily Dickinson and another by William Blake.

Figures of Speech

- 1 students' own answers
- No form of transport can move a person as much as literature: There is no Frigate like a Book To take us Lands away
 - Stories can be enjoyed by people of any status:
 - This Traverse may the poorest take
 Reading means you can go on
 - Reading means you can go on adventures without paying anything: Without oppress of Toll

Answer

students' own answers

How to Teach Figures of Speech?

The teacher explains what 'Figures of Speech' are, namely Metaphor, Simile and Personification (page 19; these sections are not to be read in class). The teacher may ask students to give examples to involve them in class presentations. Then the teacher assigns readings (pages 20-21) to be done individually at home with prior introduction in class or silently in class following the tape, or ask volunteers to read an excerpt. This is followed by general discussion. The comprehension questions would be dealt with in a way the teacher finds suitable.

TWO SUNFLOWERS MOVE IN THE YELLOW ROOM

by William Blake

The flowers tell the poet that they are tired of the weather and of travelling outside and ask him to take them inside.

They make themselves comfortable at the window watching the sun. The flowers' shadow on the carpet become permanent, along with the spots of sunlight that slowly move across it during the day.

nalysis

Figures of Speech

- 1 students' own answers
- 2 students' own answers

nswers

- 1 The flowers are asking to be taken inside because they are tired of being outside.
- 2 Tiredness/weariness, travelling habits, wanting to be inside, having the sense of seeing.
- 3 students' own answers

FIGURES OF SPEECH

A **Figure of Speech** is any use of language which is different from the obvious or normal use in order to achieve meaning or effect. We use figures of speech in everyday conversation when we say, for example, 'money talks' (personification), or 'I've got butterflies in my stomach' (metaphor), or 'he's like a bull in a china shop' (simile).

The way a writer uses figures of speech gives their writing its own special character.

There are many different figures of speech. These are the most widely used:

Metaphor

A **metaphor** is a comparison that says that the two things being compared are the same. Words such as 'like' or 'as' are not used. Like a simile, a metaphor is made up of three parts:

- the **tenor** is the subject being discussed
- the **vehicle** is what the subject is compared to
- . the **ground** is what the poet believes the tenor and the vehicle have in common

We can analyse the metaphor 'he's a live wire' as follows:

tenor ground vehicle
he is full of energy/ live wire
is very lively/
is potentially dangerous

Simile

A simile is a figure of speech in which two very different things are compared using the word 'like' or 'as'. A simile is made up of three parts:

- the tenor is the subject being discussed.
- the **vehicle** is what the subject is compared to.
- the **ground** is what the poet believes the tenor and the vehicle have in common.

We can therefore analyse the simile 'life is like a rollercoaster' as follows:

tenor ground vehicle life has its ups rollercoaster and downs

Personification

Personification is a figure of speech used in literature. It is where an object, such as a chair or the sun, or an abstract idea, such as Winter or happiness, is described as if it were alive. It is often described as having human characteristics. These characteristics may be emotions, such as love, hate or anger; physical gestures, such as running, jumping or sleeping; or expressions, such as smiling, laughing or looking sad. Personification has a very long history as a figure of speech; its Greek name is prosopopoeia. It is still often used, especially in poetry. "The wind played with the trees, shaking the

leaves from the branches". In this sentence, the wind is personified; playing with and shaking the trees.

QUESTIONS TO ASK WHEN ANALYSING FIGURES OF SPEECH

- Are comparisons drawn through metaphors or similes? What information, attitudes or associations are revealed through these associations?
- Are animals, objects or ideas personified in the poem? How does personification contribute to our understanding of the poem?

12

EMILY DICKINSON

The American poet Emily Dickinson (1830–1886) wrote almost 1800 poems, but most of them were only found after she died. She spent most of her life in her home or with her family, and she often looked at themes such as loneliness and death. Her use of language was very creative; she broke the rules of punctuation and capitalisation, and she explored all the possible definitions of words. This meant that she could fill short lines of poetry with large amounts of meaning.

A Book

by Emily Dickinson

There is no Frigate' like a Book

To take us Lands away

Nor any Coursers² like a Page

Of prancing³ Poetry —

This Traverse⁴ may the poorest take

Without oppress⁵ of Toll⁴ —

How frugal¹ is the Chariot ³

That bears ¹ the Human Soul!



- 1 **frigate:** a fast ship
- 2 coursers: fast horses
- 3 **prancing:** moving with high movements
- 4 **traverse:** journey; a movement across something
- 5 **oppress:** treat unfairly
- 6 **toll:** a payment to use a bridge or road
- 7 frugal: simple; not spending
 much money
- 8 **chariot:** a two-wheeled vehicle pulled by horses
- 9 **bears:** carries

Comprehension

Write a short paragraph explaining how Emily Dickinson feels about literature. Justify your answer by referring to the text.

ANALYSIS - FIGURES OF SPEECH

- 1 Which metaphor or simile do you find the most effective and why?
- Through which metaphors or similes does the poet convey the following ideas?
- No form of transport can move a person as much as literature.
- Stories can be enjoyed by people of any status.
- Reading means you can go on adventures without paying anything.



PERSONIFICATION

WILLIAM BLAKE (1757-1827)

Blake was a poet, painter and printmaker who was both unique and visionary. He was not widely appreciated during his lifetime, but his work is considered very important today. His work is most appreciated for its creativity, expressiveness and philosophical view.

TWO SUNFLOWERS MOVE IN THE YELLOW ROOM by William Blake

Glossary

- 1 weary: very tired or bored
- dew: the small drops of water that form on outdoor surfaces during the night
- 3 topaz: a clear yellow stone that is used as a jewel
- 4 tortoise: a slow-moving land animal with a hard shell that covers its body

"Ah, William, we're weary 1 of weather," Said the sunflowers, shining with dew 2. "Our Travelling habits have tired us. Can you give us a room with a view?"

They arranged themselves at the window And counted the steps of the sun, And they both took root in the carpet Where the topaz 3 Tortoises 4 run.

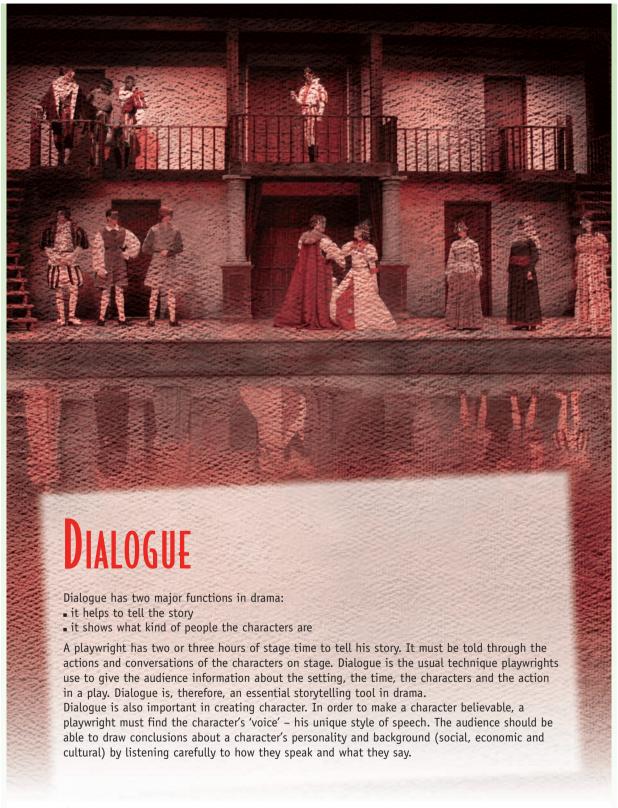
Comprehension

- 1 What are the flowers asking for, and why?
- What human qualities do the flowers have when they speak?
- Rewrite the second verse in your own words.

ANALYSIS - FIGURES OF SPEECH

- 1 In your own style, describe the image in the second verse.
- Personification adds drama to the poem. Which words that are used to show personification do you find particularly dramatic?





Objectives

After completing the lesson, students will be able to:

- explain what drama is and how it differs from other literary genres;
- identify the two main functions of dialogue in drama;
- describe how the audience actively participates in drawing conclusions about the characters' personalities;
- contrast Higgins' attitude towards Eliza with that of Pickering in the extract from Shaw's Pygmalion.

What is Drama?



by George Bernard Shaw

Answers

- 1 Eliza is a poor girl who wishes to learn how to speak properly. Higgins is an expert on phonetics who takes a bet with his friend Colonel Pickering that he can transform Eliza into a society lady. The scene is Eliza's first lesson in correct pronunciation.
- 2 He refers to her as an animal (this unfortunate animal...), speaks about her as if she is not present, mockingly imitates her and never refers to her by name.
- 3 Higgins shouts at her, threatens her with physical violence and tries to win her collaboration by offering her a chocolate. Pickering speaks politely to her and encourages her (*Good. Splendid, Miss Doolittle*). Pickering's approach is more effective.
- 4 Eliza's comic attempts to reproduce the sounds of standard English would be more effective in a performance of the scene.



IRONY: THE IMPORTANCE OF BEING EARNEST How to

by Oscar Wilde

nswers

- 1 Because she thinks that talking about the weather is just a cover up for not talking about something else. It also makes her
- 2 No: 'I am quite well aware of the fact'.
- 3 To love someone called 'Ernest'.
- 4 She says the question is mere speculation.
- 5 It is unexciting and commonplace.

Analysis

Irony

The audience knows that Ernest's real name is Jack. Gwendolen's declaration that she was destined to love a man named Ernest puts Jack into an embarrassing situation. His inability to tell her the truth about his name creates verbal and situational humour.

How to Teach Drama?

The teacher may approach teaching 'Drama' in a similar manner to the teaching of poetry and figures of speech (page 22; these sections are not to be read in class). The teacher explains what drama is and what the elements, techniques and types are (pages 23 and 26; these sections are not to be read in class) or may elicit such information from the students. Then the teacher assigns readings (pages 25 and 27) to be done individually at home with prior introduction in class or silently in class following the tape, or asks volunteers to read it aloud.

Pygmalion

by George Bernard Shaw 📼

HIGGINS: ELIZA:

Say your alphabet.

I know my alphabet. Do you think I know nothing? I don't need to be

taught like a child.

HIGGINS: PICKERING:

Say your alphabet. Say it, Miss Doolittle. You'll

understand presently. Do what he tells you; and let him teach you in

his own way.

ELIZA:

ELIZA:

HIGGINS:

Oh well, if you put it like that-Ahyee, bəyee, cəyee, dəyee-Stop. Listen to this, Pickering. This

is what we pay for as elementary education. This unfortunate animal has been locked up for nine years in school at our expense to teach her to speak and read the language of Shakespeare and Milton. And the result is Ahyee, BƏ-yee, CƏ-yee,

Da-yee. (To Eliza) Say A, B, C, D. (almost in tears) But; I'm saying it.

Ahyee, BƏ-yee, CƏ-yee-HIGGINS: Stop. Say a cup of tea. ELIZA:

A cappətə-ee HIGGINS:

Put your tongue forwards until it squeezes against the top of your lower teeth. Now say 'cup'.

ELIZA:

PICKERING:

C-c-c I can't. C-cup. PICKERING: Good. Splendid, Miss Doolittle. By Jupiter, she's done it at the first HIGGINS:

shot.

We shall make a duchess of her. (To PICKERING:

Eliza) Now do you think you could possibly say tea? Not ta-yee, mind: if you ever say bo-yee, co-yee again you shall be dragged round the room three times by the hair of your head.

ELIZA: (weeping) I can't hear no difference except that it sounds more genteel-

like when you say it.

Well, if you can hear that difference, HIGGINS: what the devil are you crying for?

Pickering: Give her a chocolate. No, no. Never mind crying a little,

Miss Doolittle: you are doing very well; and the lessons won't hurt. I promise you I won't let him drag you

round the room by your hair. HIGGINS:

Be off with you to Mrs Pearce and tell her about it. Think about it. Try to do it by yourself, and keep your tongue well forwards in your mouth instead of trying to roll it up and swallow it. Another lesson at halfpast four this afternoon. Away with

уои.

Comprehension

- 1) Explain who the characters are and what the situation is.
- 2 Find evidence in the text that shows that Higgins considers Eliza to be his inferior.
- 3 What strategies does Higgins use to make Eliza do as he says? What strategies does Pickering use?
- (4) Which comic aspect would emerge more forcefully in a performance of the scene than it does in the written text?

IRONY

Irony can be defined as saying something while you really mean something else. It is very common in everyday speech (for example, when we say 'that was a clever thing to do' meaning 'that was very foolish'), and it is also widely used in literature. The word 'irony' comes from the Greek word 'eiron', which means 'dissembler'. So the ironic speaker dissembles; he hides his real intention. These are the three types of irony that occur most frequently in drama:

- verbal irony, in which there is a contrast between what a character literally says and what he
 means
- situational irony, which occurs when an event or situation turns out to be the reverse of what
 is expected or appropriate
- dramatic irony, which occurs when the audience knows something that one or more of the characters on stage do not know. Dramatic irony is often used to add humour or suspense to a scene

THE IMPORTANCE OF BEING EARNEST

by Oscar Wilde

This scene is taken from the play *The Importance of Being Earnest* by Oscar Wilde (1854-1900). Jack Worthing leads a double life. In the countryside, where he is known as Jack, he is the respectable guardian of a young girl, Cecil. In order to escape to the city when he pleases, Jack tells the young girl that he has a brother, Ernest, who leads a wicked life in London and always needs to be checked up on. Under the name of Ernest, Jack enjoys life in London and falls in love with a young woman named Gwendolen Fairfax. Gwendolen has always dreamed of marrying a man named Ernest because the name makes her think of a person who is serious and honest, or 'earnest'. In the following scene, Jack is in a flat in London with Gwendolen and her mother, Lady Bracknell.



JACK: Charming day it has been, Miss GWENDOLEN: But your name is Ernest.

JACK: Yes, I know it is. But supposing it was something else? Do you mean to say GWENDOLEN: Pray don't talk to me about the weather, Mr Worthing. Whenever people talk to me about the weather, gou couldn't love me then?

GWENDOLEN: [Glibly] Ah! That is clearly a

metaphysical speculation, and like people talk to me about the weather, I always feel quite certain that they mean something else. And that makes JACK: most metaphysical speculations, has wery little reference at all to actual facts of real life, we know them. do mean something else. GWENDOLEN: I thought so. In fact, I am never wrong.

And I would like to be allowed to Personally, to speak quite candidly, I don't much care about the name of JACK: take advantage of Lady Bracknell's temporary absence Ernest ... I don't think the name suits GWENDOLEN: I would certainly advise you to do so. Mamma has a way of coming back suddenly into a room that I have GWENDOLEN: It suits you perfectly. It is a divine name. It has a music of its own. It suddenly into a room that I have often had to speak to her about.
[Nervously] Miss Fairfax, ever since I met you I have admired you ... I have ever met since ... I met you.

GWENDOLEN: Yes, I am quite well aware of the fact. And I often wish that in public, at any rate !... you had been more produces vibrations. Well, really, Gwendolen, I must say that I think there are lots of other much nicer names. I think Jack, for instance is a charming name. JACK: instance, is a charming name. GWENDOLEN: Jack? ... No, there is very little music in the name Jack, if any at all, indeed. It produces absolutely no And I often wish that in public, at an rate I, you had been more demonstrative. For me you have always had an irresistible fascination. always had an irresistible fascination. Even before I met you I was far from indifferent to you. We live, as I hope you know, Mr Worthing, in an age of ideals. The fact is constantly mentioned in the more expensive monthly magazines, and has now reached the provincial pulpits? I am told and my ideal has always been to vibrations ... I have known several Jacks, and they all, without exception were more than usually plain Besides, Jack is a notorious domesticity for John! And I pity any woman who is married to a man called John. She would probably never be allowed to know the entrancing reacnea the provincial purplis, the told; and my ideal has always been to love someone of the name of Ernest. pleasure of single moment's solitude. There is something in that name that inspires absolute confidence. The The only really safe name is Ernest. JACK: Gwendolen, we must get married at moment Algernon first mentioned to me that he had a friend called Ernest, once. There is no time to be lost. I knew I was destined to love you. You really love me, Gwendolen? JACK: GWENDOLEN: Glossary Yes! JACK: Darling! You don't know how happy you've made me. Ernest! GWENDOLEN: at any rate: at least provincial pulpits: JACK. But you don't really mean to say that unsophisticated country towns you couldn't love me if my name glibly: lightly, thoughtlessly plain: ordinary

Comprehension

- Why does Gwendolen ask Jack not to talk about the weather?
- Is Gwendolen surprised by Jack's declaration of love?
- What has always been Gwendolen's ideal?
- 4 Jack asks Gwendolen if she could love him even if his name were not Ernest. How does Gwendolen dismiss the questions?
- 5 What does Gwendolen think of the name Jack?

ANALYSIS - IRONY

This scene is an example of dramatic irony. What does the audience know that Gwendolen does not know? How does this add to the humour of the extract?

notorious domesticity: well-known nickname entrancing: delightful

VERSE: AT THE HAWK'S WELL by W. B. Yeats

Objectives

After completing the lesson, students will be able to:

- compare and contrast verse and prose writing;
- explain how verse drama differs from more modern forms;
- contrast the characters' views of the world in the verses of Yeats's At the Hawk's Well;
- identify features of both drama and prose while reading the excerpt.

How to teach Verse Drama?

The teacher explains what verse drama is, pointing out its resemblance to poetry (page 20; this section is not to be read in class). The teacher may ask students to give examples of verse form to involve them in class presentations. Then the teacher assigns reading (page 21) to be done individually at home with prior introduction in class following the tape, or volunteers can read the excerpt (page 20). This is followed by a general discussion. Comprehension questions may be dealt with by the teacher asking students to work in pairs to discuss answers before presenting them to the whole class.

nswer

- 1 The Old Man feels he has been deceived by the well though he believes that it is his right because he is old. The Young Man feels lucky and is hopeful that the well will fill up for him.
- 2 Because he had fallen into a sudden sleep and he had missed the flooding of the well
- 3 Suggested answer: It makes it more emotional and dramatic. The audience is able to empathise with the characters just by listening to their dialogue.

VERSE

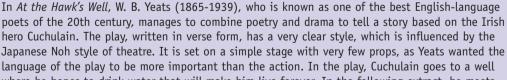
Verse drama is drama where the words are divided into lines of poetry. This combination of poetry and drama has been used by writers since the ancient Greeks. At first, it was partly used for the simple reason of making the lines easier to remember. However, it can also be used to create extremely powerful and beautiful language.

Most drama before the late 19th century was written in verse form. Friedrich Schiller, Jean Racine and William Shakespeare, who are some of the greatest European playwrights, all used verse in their plays. Henrik Ibsen (1828-1906), the Norwegian playwright, was one of the first writers to stop using verse drama. Along with other writers of his period, he started using prose, which makes the language of the plays more realistic. Later writers have still used verse because of the different range of effects it can provide. Because it sounds less natural and less like speech than prose, some writers feel it allows them to give their characters a wider range of emotions.



At the Hawk's Well

by W.B Yeats



where he hopes to drink water that will make him live forever. In the following extract, he meets an old man who has been there for fifty years, trying and failing to drink the water from the well. The young man's belief in himself and the old man's negative view of the world can be seen in Yeats's verse.

OLD MAN

O, folly ' of youth, Why should that hollow 2 place fill up for you, That will not fill for me? I have lain in wait For more than fifty years, to find it empty, Or but to find the stupid wind of the sea Drive round the perishable 3 leaves.

YOUNG MAN

So it seems

There is some moment when the water fills it.

OLD MAN

A secret moment that the holy shades 4 That dance upon the desolate 5 mountain know, And not a living man, and when it comes The water has scarce oplashed before it is gone.

YOUNG MAN

I will stand here and wait. Why should the luck Of Sualtim's * son desert * him now? For ever Have I had long to wait for anything.

OLD MAN

No! Go from this accursed ¹⁰ place! This place Belongs to me, that girl there, and those others, Deceivers 11 of men.

YOUNG MAN

And who are you who rail 12 Upon those dancers that all others bless?

OLD MAN

One whom the dancers cheat. I came like you When young in body and in mind, and blown By what had seemed to me a lucky sail. The well was dry, I sat upon its edge, I waited the miraculous flood, I waited While the years passed and withered 13 me away. I have snared 14 the birds for food and eaten grass And drunk the rain, and neither in dark nor shine Wandered too far away to have heard the plash, And yet the dancers have deceived me. Thrice I have awakened from a sudden sleep To find the stones were wet.

YOUNG MAN

My luck is strong, It will not leave me waiting, nor will they That dance among the stones put me asleep; If I grow drowsy 15 I can pierce 16 my foot.

OLD MAN

No, do not pierce it, for the foot is tender, It feels pain much. But find your sail again And leave the well to me, for it belongs To all that's old and withered.

YOUNG MAN No, I stay.

Glossary

- folly: stupidity
- hollow: empty inside
- perishable: can rot or die
- shades: ghosts
- desolate: has no life on it
- scarce: only just
- plashed: splashed
- Sualtim: Cuchulain's father
- desert: leave
- 10 accursed: shows you hate
 - something
- 11 deceivers: people who lie
- 12 rail: complain strongly
- 13 withered: (made) thin and weak
- 14 snared: caught
- 15 drowsy: tired
- 16 pierce: cut into

Comprehension

- 1 What do the Old Man and the Young Man feel about the well?
- 2 Why has the Old Man not been able to drink the water?
- 3 How do you think the use of verse changes the atmosphere of the text?

Objectives

After completing the lesson, students will be able to:

- describe what fiction is and how it differs from other literary genres;
- analyse setting in Forster's story 'A Passage to India';
- briefly describe the background and career of D.H. Lawrence;
- analyse the symbolism in Lawrence's story 'The Rocking-Horse Winner';
- discuss the differences and similarities between a novel and a short story;
- describe the extremes of emotion and action that lie behind the plot in Emily Brontë's 'Wuthering Heights'.

How to Teach Fiction?

The teacher explains what fiction is (page 32, this section is not to be read in class) and how it is analysed. Then he introduces its forms: Short Story (page 34) and Novel (page 36) or may elicit such information from the students. Then the teacher assigns readings (pages 35, 37 and 38) to be done either individually at home with prior introduction in class or silently in class following the tape.

What is Fiction?

Fiction is a form of literature that is designed to be read. A work of fiction tells a story, spoken or written. It is simply an account of events, either real or imagined. Stories always have a purpose that can be either to entertain or to teach the reader, or explain a worldly concept.

Many traditional stories were designed to teach. The three kinds of stories that were meant to teach or explain a worldly concept are: myths, fables and parables.

Myths also known as legends, are single stories without basis in fact or history and express spiritual or religious aspects of existence such as love, war, famine...

Fables also known as folktales or fairy tales are stories that originated in different cultures. Often their purpose was to give a lesson and can touch a deep psychological truth about human nature and emotional growth.

Parables very short fictional stories that teach a moral or religious concept. Parables compress ideas and actively involve critical thinking skills. It is worth noting here that most modern stories do not fit into any of these three categories.

A modern **Short story** is an account of events, real or imagined, while a **novel** is a long written story usually printed as a book, dealing with invented people and events.

A reader may analyse fiction for the enjoyment of the art of reading, the understanding of subtle meaning, gaining knowledge, and becoming better readers.

To become adept at analysing a story, long or short, the reader needs to become familiar with the elements of story-making:

- Structure (the way the action is organised);
- Plot (sequence of action or events);
- Setting (where and when action occurs);
- Character (person(s) presented by writer);
- Characterisation (the way the character is made real);
- Theme (central idea);
- Point of view (the perspective the story is told: first or third);
- Social and economic facts (gender, age class...);
- Symbolism (a device that evokes more than literal meaning);
- Irony (a device that develops meaning by contrasts).

Comprehension

A Passage to India

Students' answers should mention that Forster wanted to create a depressing image for his city in order to set an ugly backdrop to the story, without criticising a real place.

The Rocking-Horse Winner

1 students' own answers 2 the horse

Wuthering Heights: Students' answers should mention the differences between Heathcliff and Hareton, and the effete Edgar and Linton. However, they should also say how close the families are.

What is Fiction?

The term 'fiction' comes from the Latin word *fingere* and refers to any narrative in prose or verse that is entirely or partly the work of the imagination. Although in a wider sense fiction includes plays and narrative poems, it is most commonly used when referring to the short story and the novel. Storytelling has always been an essential part of man's existence. From the earliest times, man has exchanged stories based on both his experience and imagination. Fiction, in the form of the novel and the short story, is the best tool for satisfying the need for storytelling that we are born with. It takes us to imaginary times and places, introduces us to new people and tells us about important events in their lives. Fiction, since its arrival in the form of the novel in the 18th century, has been the most popular literary genre in Western culture.

Setting:

Where does the story take place? What kind of world do the characters live in? The term we use to refer to the general location and the historical period that a story happens in is the setting. The term is also used to refer to the actual location that an episode or scene within the story takes place in. The general setting of a novel may be, for example, a large city like London, while the setting of the opening scene may be the main character's kitchen.

Some settings are not as important as others. They are simply a background to help the reader visualise the action and add realism to the story. Other settings are closely linked to the meaning of work: the author may concentrate on elements of setting to create atmosphere or mood, or the setting may play a major role in shaping the characters' identity and destiny. Generally, the attention given to the setting and its importance in the total work are the same. If the setting is sketched briefly, we can assume that it is of little importance, or that the writer wishes us to think that the action could take place anywhere and at any time. If, on the other hand, the passages describing the setting are long and highly detailed, or are written in poetic language, we can assume that the setting is being used for more meaningful or symbolic purposes.

E.M. FORSTER

(1879-1970) Edward Morgan Forster was an English novelist whose surroundings were very important to his fiction. He attended school in the southeast of England before going to Cambridge University. He loved the city and the university, where he felt inspired by the houses and atmosphere around him. After finishing there, he travelled around the world. The influences of the places he grew up in and travelled to can clearly be seen in his writing.



Forster's great novels A Room with a View (1908), Howards End (1910) and A Passage to India (1924) are set in Italy, England and India respectively. The settings that he had seen in real life are beautifully recreated in his fiction. It was important to him that the reader could see and understand the feelings, colours and even the weather of the countries. When writing about A Passage to India, he said that the three sections were related to the three Indian seasons: winter.

summer and the rains.

A Passage to India

by E. M. Forster

Except for the Marabar Caves — and they are twenty miles off — the city of Chandrapore presents nothing extraordinary. Edged' rather than washed by the river Ganges, it trails for a couple of miles along the bank, scarcely distinguishable 2 from the rubbish it deposits 3 so freely. There are no bathing-steps on the river front ⁴, as the Ganges happens not to be holy here; indeed there is no river front, and bazaars 5 shut out the wide and shifting panorama ' of the stream. The streets are mean ', the temples ineffective, and though a few fine houses exist they 10 are hidden away in gardens or down alleys whose filth deters ⁸ all but the invited guest. Chandrapore was never large or beautiful, but two hundred years ago it lay on the road between Upper India, then imperial , and the sea, and the fine houses date from that period.

Glossary

- edged: bordered
- scarcely distinguishable: hard to tell one thing from another
- deposits: puts down
- river front: the area and buildings along a river
- bazaars: markets
- panorama: view of a wide area
- mean: poor in terms of money and appearance
- deters: puts off, discourages
- imperial: relating to an empire; here it is the British Empire

Comprehension

- What image is Forster trying to create for the city of Chandrapore?
- Forster made up the city of Chandrapore, but he based it on a real Indian city. Why do you think he decided not to use the real cities that he had visited?
- How do you think the description of the city might be important for the rest of the story?

DH. LAWRENCE (1885-1930)

David Herbert Richards
Lawrence was born in
Eastwood in 1885.
As a child, he was
impressed by his father's
stories of the mines.
He became a pupil-teacher
in 1902, and after two
years (1906-1908) at
Nottingham University, he
became a school-master in
Croydon.



By 1914, the year of his

first volume of short stories,
The Prussian Officer
and Other Stories.
Lawrence had given up
teaching because of illness
and become a professional
writer.
His many famous novels
include Sons and Lovers,
The Rainbow and
Women in Love. He died
of tuberculosis in France in
1930.

Short Story

A short story is a form of short fictional narrative prose. Short stories are usually more concise and to the point than longer works of fiction, such as novels.

Because they are so short, successful short stories rely on literary devices such as character/plot and theme language more than longer forms of fiction.

The water about the

24

'THE ROCKING-HORSE WINNER' by D.H. Lawrence

Paul, aged about twelve, has always felt that his mother does not love him enough because she is worried about money. His mother grew up in a rich upper class family where she was used to luxury. She married a man of her own social background for love, although the love did not last, but he does not have a good enough income 1 to support their lifestyle. Paul and his sisters can

always hear their house whispering, 'There must be more money! There must be more money!' Nobody ever says the words out loud, but the whisper is everywhere.

Paul asks his mother why they do not have their own car and have to always use Uncle Oscar's or a taxi. She says his father has no luck. Luck is what causes you to have money. She used to be lucky, before she married. Paul declares that he is a lucky person. God has told him so. His mother is not impressed, and this annoys him; he wants to win her attention.

He takes to riding his big wooden rockinghorse, because 'he knew the horse could take him to where there was luck'. He rides hard and his big blue eyes shine with determination. Uncle Oscar asks what the horse is called. The name changes, says Paul. Last week he was called Sansovino. Oscar is interested in that, because Sansovino won at Ascot². Paul's mother tells her brother Oscar that Paul discusses horseracing with Bassett, the gardener. Oscar takes Paul for a ride in the car

Glossary

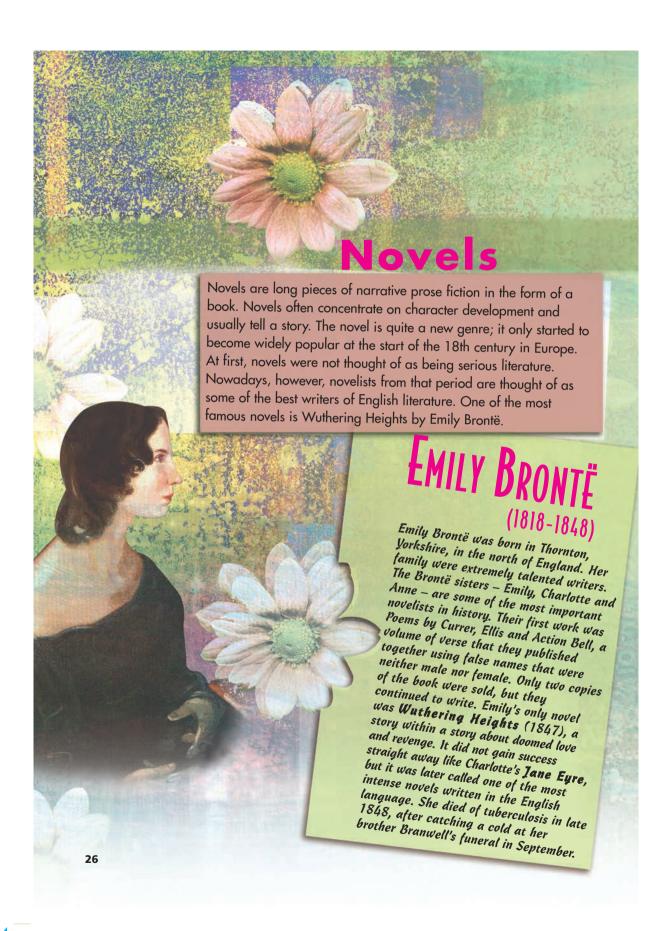
- 1 income: the money that you earn from your
- 2 Ascot: Royal Ascot, a four-day meeting in June. The Gold Cup is the principal long-distance race of the English flat-racing
- 3 Leger: the St Leger, run at Doncaster in September
- 4 Grand National: the principal steeple-chasing event in England, held at Aintree in late March
- 5 Derby: the Derby Stakes is run at Epsom on the first Wednesday in June
- 6 frenzy: a state of extreme happiness

and questions him. Paul says he and Bassett are partners; he had started winning on races when he bet ten shillings that his uncle had given him. Paul wants to bet three hundred pounds on Daffodil to win the Lincoln, but this is a secret. Bassett looks after the money; he is more cautious and keeps more of it left over. Oscar takes his nephew to the Lincoln races. Daffodil wins at odds of four to one. Bassett convinces Oscar that Paul is telling the truth. Paul now has fifteen hundred pounds. Sometimes, Paul says, he is sure which horse will win.

Oscar joins the partnership. Paul wins ten thousand pounds on Lively Spark, an outsider he is sure about, in the Leger³. Uncle Oscar wins two thousand, but feels nervous about betting this amount of money. Paul does not want his mother to know, because she would stop him, but he wants her to have the money. Oscar arranges this through a lawyer. Paul's mother begins to spend too much money and the house whispers even more, terrifying Paul who grows 'wild-eyed and strange'. He is not sure who the winner of the Grand National will be. He must be sure about the Derby 5. Paul's secret is the rocking-horse. He rides himself into a frenzy 6 where he 'learns' the name of the winner. One night his mother goes to his room and finds him riding frantically. He falls from the horse, calling out 'Malabar', before falling into a coma for three days. Oscar passes the tip to Bassett. Paul wakes up when Bassett is allowed into the bedroom with news about the Derby. Malabar has won him over seventy thousand pounds. Paul boasts to his mother that he is lucky; but he dies that night. Oscar thinks the boy is 'best gone out of a life where he rides his rockinghorse to find a winner'.

Comprehension

- What does the horse symbolise in the story?
- What is the symbol of death at the end of the story?



THERING HEIGHTS

by Emily Brontë

In 1801, Mr Lockwood rents Thrushcross Grange, an elegant country house near Gimmerton in Yorkshire; his landlord, Heathcliff, a rude man, lives at Wuthering Heights, a farm on a hill. Lockwood is trapped by snow on a visit to the Heights and has to stay the night. He dreams that he sees a child knocking at his window, saying that her name is Catherine Linton and she has been a waif for twenty years. After he gets home, his housekeeper - Ellen Dean - tells him the story of the Earnshaw family at the Heights where she was brought up. The Earnshaws had two children, Hindley and Catherine, and after a visit to Liverpool Mr Earnshaw brought home a homeless child, about the same age as Catherine, whom they called Heathcliff. He and Catherine became close friends, but Hindley was jealous of his father's love for Heathcliff.

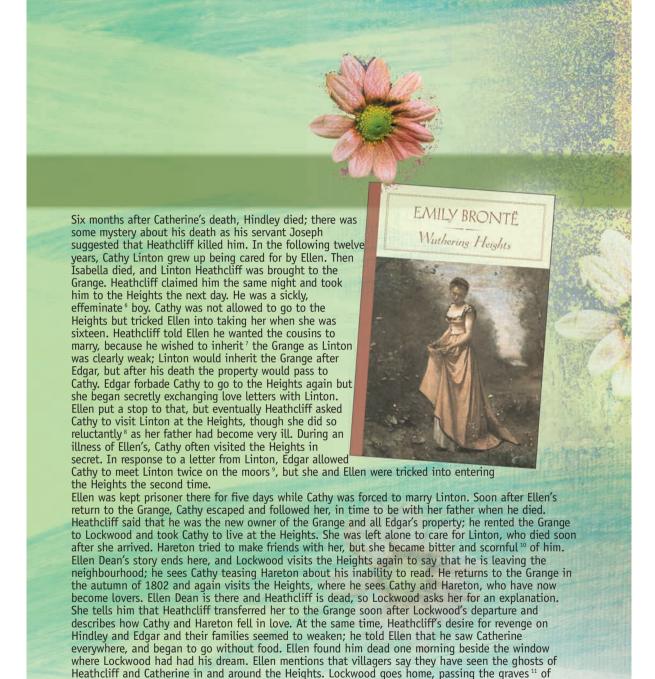
When Mr Earnshaw died, and Hindley - married by then - became master of Wuthering Heights, he Glossary

- waif: someone, especially a child, who is pale, thin and looks like they do not have a
- effete: weak and powerless in a way that you dislike
- demean: to do something that makes people lose respect for someone or something
- infatuated: having strong feelings of love for someone or a strong interest in something that makes you unable to think in a sensible way
- hysterical: unable to control your behaviour or emotions because you are very upset, afraid or excited etc.
- effeminate: a man who is effeminate looks or behaves like a woman
- inherit: to receive money, property etc. from someone after they have died
- reluctantly: slowly and unwillingly moors: wild open areas of high land
- 10 scornful: feeling or showing that something is stupid or does not deserve respect
- graves: places in the ground where dead bodies are buried

made Heathcliff a servant and encouraged book Catherine's friendship with the effete Edgar Linton, the son of the family at Thrushcross Grange. Hindley's wife died soon after giving birth to their son, Hareton, and Hindley became extremely sad. Edgar Linton asked Catherine to marry him; Heathcliff overheard her discussing it with Ellen, saying that although she loved Heathcliff, it would demean³ her to marry him, and he quietly left and disappeared. Catherine went out in the rain to search for him and became seriously ill as a result of getting wet; three years after her recovery she married Edgar, whose parents were dead by then, and went with Ellen to live at the Grange.

She and Edgar were happy until Heathcliff reappeared, transformed into a wealthy and educated man. Edgar was jealous of Catherine's love for him, and Ellen wondered why he was living at the Heights. Isabella, Edgar's sister, became infatuated with Heathcliff who encouraged this love. After an angry scene between Edgar and Heathcliff, Catherine became hysterical 5 and locked herself in her room. She remained there for three days, and when Ellen was allowed in, she was confused and imagining herself at the Heights. Though she was very sick, she pointed her head out of the window into the icy wind, saying that the only way she could get back to the Heights and see Heathcliff was through death. She fell desperately ill and Edgar was very concerned about her.

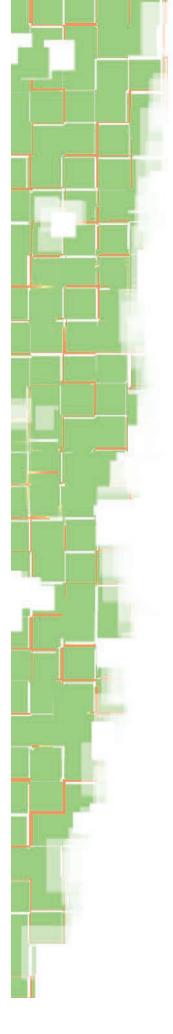
Catherine recovered but remained weak, partly because she was pregnant. After two months, Heathcliff and Isabella returned to the Heights. Isabella, now married to Heathcliff, wrote to Ellen saying what a lonely place it was; Ellen visited her there and saw that Heathcliff hated Isabella and loved only Catherine. She arranged a meeting between Heathcliff and Catherine, and they wept and embraced each other. They were interrupted by Edgar, and Catherine fainted. She died after she had given birth to a daughter, Cathy. Heathcliff was violent in his sadness. Isabella appeared at the Grange on the night after Catherine's funeral, untidy and bleeding from a wound in her neck. She told Ellen how Heathcliff and Hindley had had a big fight, and how she had made Heathcliff so angry that he had thrown a knife at her. She threw it back and escaped, before leaving the Grange to live near London where she had a son, Linton.



Comprehension

Edgar and Heathcliff with Catherine's between them.

'Wuthering Heights' is a stormy tale about the troubles of two families: the Earnshaws and the Lintons. Discuss this using the text.





This section is designed to give the students an understanding of one of the most important influences on modern English.

Objectives 0

After completing this section of the book, students will be able to:

- talk about the life of Shakespeare;
- explain how Shakespeare built his career.

Throughout the section, words are identified in the glossaries. These should be looked up as a class.

Pre-discussion



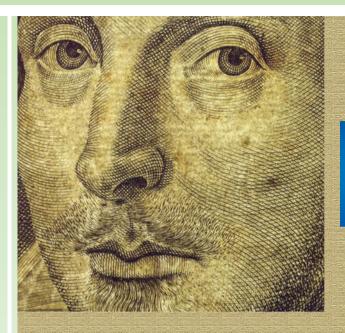
Elicit from students what they know about Shakespeare or if they have heard of any of his plays or read any of his poetry. As a pre-discussion activity, put them into pairs to discuss and write points about the topic.

(Reading Strategies)

After students write down what they already know, ask them to read the captions in the section and tell you what each paragraph might be about.

nswers

- a in Stratford-upon-Avon in 1564
- b Anne Hathaway when he was 18
- c a company of actors
- d a theatre
- e in retirement in Stratfordupon-Avon



William Shakespeare (1564-1616) 🚥

You have already been introduced to William Shakespeare. Shakespeare is widely thought of as the greatest dramatist in the English language, and modern English is heavily influenced by his work, which remains as popular today as it has ever been. This section will tell you more about Shakespeare and the background to what he wrote.

Early life: He was born in Stratford-upon-Avon in 1564, probably on April 23rd. His father, a glover by trade², was a well-known man who held important positions in the town's government. His mother came from a rich local family. It is thought that William Shakespeare attended Stratford Grammar School, but he did not go on to study at university. When he was eighteen, he married Anne Hathaway, who was eight years older than him. A few months later, Susanna was born, his first child. Three years after that, his twins, Hamnet and Judith, were born.

Success: He went to London where he did a series of jobs, including holding theatre-goer's 3 horses outside playhouses, before he eventually became an actor. In 1595, Shakespeare joined an important company of actors called The Lord Chamberlain's Men (later changed to The King's Men) and performed at court. His success as a dramatist grew. He mixed in high social circles, and the Earl of Southampton, whom he dedicated his sonnets to, became his patron and friend. Shakespeare's improved financial standing allowed him to invest in the building of the Globe Theatre, and in 1597, he bought New Place, the finest house in Stratford.

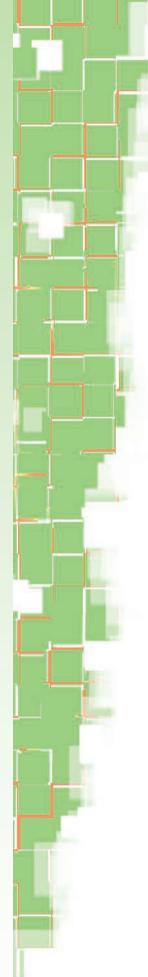
Retirement and death: He retired 5 to his hometown in 1611, where he died on April 23rd, 1616.

Comprehension

- 1 When and where was Shakespeare born?
- Who did he marry and how old was he?
- Who were The Lord Chamberlain's Men?
- What was The Globe?
- How did he spend the last years of his life?

Glossary

- dramatist: someone who writes drama
- glover by trade: makes gloves for a living 3 theatre-goer: a person who goes to the
- invest: to spend money or time on something because it will become useful to you
- 5 retired: having stopped working, usually because of your age





= Further literary section

Objectives 🔘

After completing this section of the book, students will be able to:

- talk about Shakespeare's writings;
- describe how Shakespeare's plays are divided

Pre-discussion



Ask students if they know any of Shakespeare's works. Ask them to write down on a piece of paper as many titles of writings or poems by Shakespeare as they know.

Comprehension

Students should use this book to understand how Shakespeare's works have been passed down.

Bad Quartos

These are the incomplete notes with which Shakespeare's plays were first compiled.

First Folio

This was a collection of Shakespeare's works that included thirty-five plays. It was compiled after his death by two actors who had been friends of his.

First period

This was a period of learning and experimentation. Shakespeare wrote three types of plays: histories such as Richard III; comedies like A Midsummer's Night Dream; and also the tragedies Titus Andronicus and Romeo and Juliet.

Second period

During this period, Shakespeare focused on histories and comedies. and it was then that he wrote his best comedies like The Merchant of Venice, Much Ado About **Nothing** and **Twelfth Night**. These plays based their comedy on a wide range of themes such as the pain and pleasure of friendship, mistaken identity and making fun of people who take themselves too seriously.

Third period

Shakespeare wrote his great tragedies, such as Hamlet, King Lear, Othello, Macbeth and Measure for Measure. These were his finest tragedies, and these works contained some very dark elements.

Fourth period

Shakespeare seemed to be writing in a happier state of mind. **The Tempest** is a play that involves magic, music and harmony.



Shakespeare never released the texts of his plays. But some of his works were put together from notes taken in the theatres or from the memories of the actors: the 'Bad Quartos', A quarto is a size of page or book, and they are 'Bad' because they are full of holes and mistakes.

In 1623, two former 1 actors and friends of Shakespeare's, Heminge and Condell, decided to publish the first collection of his plays. This 'First Folio' included 35 plays, which were divided into comedies, histories and tragedies.

Glossary

- 1 former: having a particular position in the past
- estimate: a guess that is based on fact
- plot: the events that form the main story of a book, film or play
- 4 contemporary: people or events that happened at the same time
- 5 experimentation: trying new things6 optimistic: hopeful; believing that something will have a good result

We can also divide Shakespeare's plays into four time periods. The plays were not dated. However, we can estimate when they were written based on the style, plot , characterisation and metre used in the play. We can also date references in the plays to contemporary 4 events and the works of other writers.

First Period The first period went from 1591 to 1596, and it was a period of learning and experimentation⁵. In these years, Shakespeare wrote very different types of plays. He wrote plays about the history of England, such as Richard III; comedies, including A Midsummer Night's Dream; and the tragedies Titus Andronicus and Romeo and Juliet.

Second Period From 1596 to the turn of the century, Shakespeare focused on histories and comedies, and it is generally agreed that this was when he wrote his best comedies. These included The Merchant of Venice, Much Ado About Nothing and Twelfth Night; which base their comedy on different themes, such as the pain and pleasure of friendship, mistaken identity and making fun of people who take themselves too seriously.

Third Period During the third period, from 1601 to 1608, Shakespeare wrote his great tragedies. These plays have given us unforgettable characters such as Hamlet, King Lear, Othello and Macbeth. His comedies from this period have lost the bright, optimistic appeal of earlier works. The darker elements found in works such as Measure for Measure suggest that Shakespeare had difficulties in his personal life.

Fourth Period A return to a happier state of mind is reflected in the plays of the final period from 1608 to 1613. The Tempest, for example, is set in the ideal world of an island where there is a magical, musical and romantic atmosphere.

Comprehension

- What are the Bad Quartos and the First Folio?
- Makes notes on the four periods of Shakespeare's plays. Use them to write a short essay. 30



Shakespeare's Theatrical Genius

Further literary section

Objectives 🔘

After completing this section of the book, students will be able to:

- talk about Shakespeare's greatness;
- describe Shakespeare's most unforgettable characters

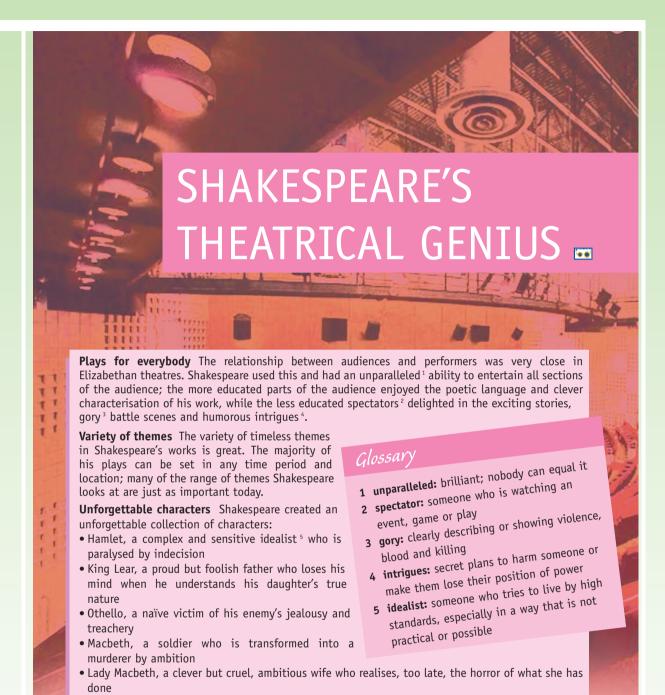
Pre-discussion



Ask students why they think Shakespeare could be considered as a great playwright.

Comprehension

Shakespeare used the intimate relationship between audience and performers, as well as his ability to entertain everyone with a variety of themes, to become great. Intellectuals enjoyed the poetic language and the clever characterisation, while the less educated delighted in the exciting stories, violent battle scenes and humorous intrigues. Shakespeare created an unforgettable collection of characters, including Hamlet, King Lear, Othello and Macbeth.



Comprehension

Write a paragraph explaining the reasons for Shakespeare's greatness.



Further literary section

Objectives 🔘

After completing this section of the book, students will be able to:

- talk about the life of Dickens;
- explain how Dickens's career developed;
- describe the relationship between an author's life and the fiction he writes;
- identify common qualities between the character David Copperfield and Charles Dickens;
- discuss how serialisation helped make Dickens work exciting;
- explain how Dickens's characters were the reason for his popularity.



by Charles Dickens

Dickens's Popularity

Serialisation

Dickens serialised his novels by writing them as they were being published. This kept the excitement caused by cliffhangers. It also gave him the ability to change the texts according to what was popular and exciting.

Characters

He created wonderful characters based on his life, such as David Copperfield and the orphan Pip, as well as scary villains like Uriah Heep and Daniel Quilp.

nswers

- 1 In the same way that
 Shakespeare is viewed
 as the greatest Englishlanguage dramatist, Charles
 Dickens is often called the
 greatest English-language
 novelist.
- 2 His fifteen novels have never stopped being published, and there is even a theme park based on his life Dickens World.
- 3 Three events changed him as a person: 1- his family moving to London; 2- him having to work at a shoe-polish factory; 3- his father getting arrested.
- 4 Boz was Dickens; it was the pen name that he used.
- 5 Dickens did very popular tours of Britain and America, reading his novels aloud.

nswers

- 1 David works in a factory and a law firm before becoming a successful author, just like Dickens worked in a shoe-polish factory and as a court reporter before publishing his novels.
- 2 students' own answers



Charles Dickens (1812-1870)

In the same way that Shakespeare is viewed as the greatest English-language dramatist, Charles Dickens is often called the greatest English-language novelist. He lived in London during the Victorian era 1. The excitement of his novels and the way that they were published 2 meant that he was extremely famous while he was still alive, and he is still popular now. This is shown by the fact that his fifteen novels have never stopped being published. There is even a theme park³ based on his life - Dickens World.

Early life Charles Dickens was very happy as a small child. However, when he was ten, his family had to move to London because they were poor. Young Charles had to work in a shoepolish factory, sticking labels onto the shoe-polish bottles. His father was then arrested, so Charles had to live with a family friend. Feeling like an orphan and working under difficult conditions as a boy had a huge effect on the stories he wrote as a man.

Career When he was fourteen, he became a law clerk. However, he wasn't interested in the law, so he decided to become a journalist. He worked incredibly hard to learn shorthand and became a court reporter. His skill was obvious, and from 1833 to 1836, he released a group of short pieces. These short pieces were called Sketches by Boz, because of the pen name 7 Dickens used. Over the next three years, he published three novels serially and by then he was well-known as a wonderful novelist.

Later life After a terrifying train crash, where he was in the only carriage to stay on a bridge, Dickens wrote very little. He completed A Mutual Friend and started the unfinished novel The Mystery of Edwin Drood. Instead, he did very popular tours of Britain and America, reading his novels aloud. He died exactly five years after the crash.

Comprehension

- 1 How is Dickens similar to Shakespeare?
- What evidence is there for his popularity?
- 3 Which events in his life changed him as a person?
- Who was Boz?
- What did Dickens do in the last years of his life?

Glossary

- 1 Victorian era: when Victoria was queen of the United Kingdom; from 1837-1901 2 published: made available for sale
- theme park: a park with fun things to do that is based around a certain topic 4 orphan: a child with no parents
- clerk: person who keeps records and shorthand: a way to write down quickly what
- pen name: a false name a writer uses
- 8 serially: in parts

32

Life and fiction...

Writers' lives can be extremely important to their work. It is sometimes difficult to separate an author's personal life or the time they lived in from the texts they write. This is why we often study authors' lives alongside their texts. Knowing that a text was written in ancient Rome rather than in Victorian London changes how we view a text.

Dickens's childhood and early career can be seen in his novels. The novel *David Copperfield*, his favourite, has many elements that are similar to Dickens's life. For example, David works in a factory and a law firm before becoming a successful author. Dickens is skillful enough to use stories from his own life as the basis for a great piece of fiction.

DAVID COPPERFIELD

by Charles Dickens

I know enough of the world now, to have almost lost the capacity ¹ of being much surprised by anything; but it is matter of some surprise to me, even now, that I can have been so easily thrown away at such an age. A child of excellent abilities, and with strong powers of observation, quick, eager ², delicate ³, and soon hurt bodily or mentally, it seems wonderful ⁴ to me that nobody should have made any sign in my behalf. But none was made; and I became, at ten years old, a little labouring hind ⁵ in the service of Murdstone and Grinby.

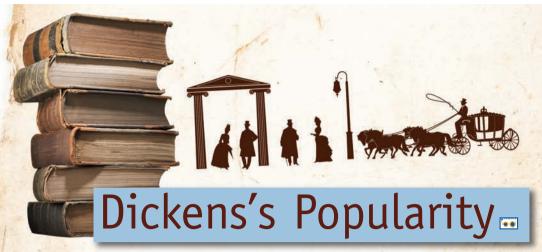
Glossary

- 1 capacity: ability
- 2 eager: wanting to do something
- 3 delicate: easy to break; needs to be treated carefully
- **4 wonderful:** strange; creates a feeling of wonder
- 5 hind: farm worker
- 6 decaying: getting worse over time
- 7 scuffling: moving quickly and without direction
- 8 rottenness: how bad and diseased something is

Murdstone and Grinby's warehouse was at the water side. Its panelled rooms, discoloured with the dirt and smoke of a hundred years, I dare say; its decaying 6 floors and staircase; the squeaking and scuffling 7 of the old grey rats down in the cellars; and the dirt and rottenness 8 of the place; are things, not of many years ago, in my mind, but of the present instant. They are all before me, just as they were in the evil hour when I went among them for the first time, with my trembling hand in Mr. Quinion's.

Comprehension

- What is similar between David Copperfield's memory of his childhood and Charles Dickens's childhood?
- 2 How do you think David's surprise that a child can be 'thrown away' is similar to how Dickens felt about how children were treated in his time?



The extraordinary and enduring popularity of Dickens is because of the wonderful cast of characters he created – during his career he wrote 989 named characters – and the exciting stories that he told with them. However, his popularity during his own time was also partly due to serialisation.

Serialisation Serial publishing involves breaking a story up into smaller sections and then releasing them each week or month. They can be published in newspapers and magazines, or as small individual books. The One Thousand and One Nights is an example of serial publication where the individual tales were collected over centuries. This type of publishing means that the reader can be left with a cliffhanger, when the story breaks off³ in the middle of the action, meaning they are excited about what is going to happen in the next issue 4.

Charles Dickens serialised his novels differently. Instead of completing a novel before releasing parts of it every month, he wrote them as they were being published. At the start of his career he would be writing and publishing more than one book at once. He kept the excitement caused by the cliffhangers, but he had the added ability to change the texts according to what was popular and exciting.

Characters An example of how Dickens used serialisation happened during the publication of The Pickwick Papers, his first novel. The readers of the time were not particularly interested in this novel until chapter ten was published, featuring Sam Weller. Weller was loved because of his wit⁵, and Dickens became famous.

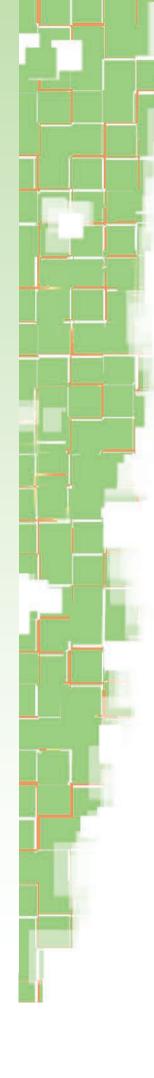
He also created wonderful characters based on his life, such as David Copperfield and the orphan Pip from Great Expectations, as well as fascinating, scary villains 6, like David Copperfield's Uriah Heep, and Daniel Quilp from The Old Curiosity Shop.

Glossary

- 1 enduring: long-lasting
- tales: imaginative stories
- breaks off: stops
- issue: an individual part of a series
- wit: intelligence and humour villains: evil characters who are important to
- the excitement of a plot

Comprehension

Write a paragraph explaining the reasons for Dickens's popularity.



Oliver Twist

Answers to 'Oliver Twist'

1 1 С 2 а 3 d 4 е b Because Noah insulted his mother. 3 a house b watching c stealing d frightened e sorry looked think ceabd 5 b 6 С 7 а

9

He wanted Fagin to turn Oliver into a thief so that he would be arrested, convicted and sent out of the country.

10

a gold locket and a gold ring

11

He throws the bag into the river and threatens to throw them in too if they tell anyone.

8 C

12

Nancy tells Rose that Monks is the brother of Oliver.

13

Because she cannot leave her life with Bill Sikes

14

Because she told Mr Brownlow about him and Fagin

15

The police follow the dog to Sikes.

16

- 1 d
- 2 a
- 3 b
- 4 c
- 5 f
- 6 e

17

If he had been caught, he would have been sentenced to death and hanged.

18

They will be deported.

19

He would be sent to prison.

20

Answers will vary.

Scientific Section Supplement

Scientific Contents

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Introduction

This section includes a range of subjects that students will find interesting and stimulating. Comprehension questions and discussion points accompany each one.

The exercises that follow cover a range of topics that are of great importance.
These will engage students and encourage discussion. These exercises are supplemented by a further set of related exercises and comprehension questions.

Students will be more confident on each topic, and they should be encouraged to use all their knowledge and vocabulary to answer these further questions.

Introduction

'Science' refers to the methods used by scientists to gain knowledge and make discoveries: how they learn about the physical environment and the natural world. The word 'science' originally comes from the Latin word 'scientia', meaning 'knowledge'. It also refers to the knowledge gained over time about the physical world: scientific attitudes towards it; conclusions drawn about it; and the processes used to make discoveries about it.

'Science' is a broad term, covering a wide range of scientific fields and subjects. These reach from meteorology — which is the scientific study of weather changes and patterns, climates and

from meteorology – which is the scientific study of weather changes and patterns, climates and the atmosphere – to geology and mathematics. Scientific investigation, in any given field, involves analysing and exploring different aspects of the field. By doing this, the factors that influence and contribute to the phenomenon studied can be discovered. Science can be roughly divided into three areas: Physical Sciences, Earth Sciences and Life Sciences. The units 'The Air Around You' and 'Global Changes in the Atmosphere' are about the function and structure of the

atmosphere, the Earth's temperature, the Greenhouse Effect and climate change. These issues are explored within the field of Meteorology, which is one branch of the Earth Sciences. The units 'Smoking and Your Health' Healthy Eating' refer to the Life Sciences, of which Health Medicine and Pieles. which Health, Medicine and Biology are branches: all three are connected. The unit 'History of the Universe' studies the field of Astronomy (the scientific study of stars and planets), one of the branches of the Physical Sciences.

Inventions are products of scientific inquiry and the scientific mind. They have also been possible as a result of the vast advances made to date in modern technology. These technological advances are closely

related to Science. The units 'Alexander' Graham Bell' and 'Computers' related to the field of electronics. The electronics industry, born in the 20th century, has progressed in leaps and bounds. A computer that once filled an entire room can now be carried around in a slim briefcase. Since Alexander Graham Bell invented the telephone in the late 19th century, our lives have been greatly transformed by the ever-changing technological world and the introduction of newer and more sophisticated devices for communication and computing.

Other modern fields of technology are Physics, Space Technology and Rocket Science, which are all connected. The unit 'Humans in Space' examines how technology has been used to leave Earth. Methods of transport have advanced greatly. Today, astronauts can be sent into outer space, and satellites revolve around Earth, transmitting information on matters such as weather formations and climate patterns. In its many branches, Science has contributed enormously to the advancement of humanity.

As scientists study the natural world and the universe, a process called 'Scientific Inquiry' is used. The term 'natural world' covers the Earth, living organisms such as human beings, animals and plant life, as well as aspects relating to the wider universe. These aspects include galaxies, planets and stars, our own solar system, and how the universe functions. 'Scientific Inquiry' describes the diverse methods that scientists use to explore problems and how they try to answer questions about natural phenomena. It also explains how scientists think and what techniques they use.

Scientific methods have evolved over many centuries, and they now involve a well-recognised and well-defined series of steps. First, information or data is gathered by careful observation of the phenomenon being studied. Then, based on the observation, an introductory hypothesis is made. Experiments are later used to test this hypothesis, which is then altered if appropriate. Scientists put hypotheses and theories to the test using carefully designed and controlled experiments. Theory and experiment work together in science, leading to new theories and further experimentation.



Objectives

After completing the lesson, students will be able to:

- state how the atmosphere is important to living things;
- identify the gases that are present in Earth's atmosphere.

Pre-discussion

Ask students what they know about the air and the atmosphere around them from their own knowledge. Discuss any issues related to the atmosphere. As a pre-discussion activity, have students form groups of three or four to discuss and write down points about the topic for later feedback to the rest of the class. During feedback, modify and write up some of their notes on the board for discussion.

Explain to students that the word atmosphere comes from two Greek words: atmos meaning 'vapour' and spharia meaning 'ball' or 'globe'. So the atmosphere is the vapours or gases surrounding a globe – in this case, Earth.

Reading Strategies

■ Make sure students understand how the two parts in the figure (gases in dry air) are related by pointing out that the table shows the gases that make up the tiny wedge of the circle that is not nitrogen or oxygen. After students have read the section and written their sentences, suggest that they form pairs. Read their sentences to each other, and try to identify which gas each sentence describes. Also urge them to work together to resolve any factual errors they detect in each other's sentences. Possible student sentences include the following: The most abundant gas in air is nitrogen. Air is 21 percent oxygen.

Checkpoint

Water could not exist as a liquid on Earth's surface. Earth would also be exposed to meteoroids and dangerous radiation from the sun. There would be no life on Earth without the oxygen and other gases that living things need.

The Air Around You

As you walk home from school, the air is warm and still. The sky is full of thick, dark clouds. In the distance, you see a bright flash of lightning. A few seconds later, you hear a clap of thunder. As you turn the corner onto your street, raindrops start to fall. You begin to run and reach your home just as the downpour begins. That was close! From the shelter of the entrance you pause to catch your breath and watch the storm.

The Importance of the Atmosphere...

Does the weather where you live change frequently, or is it fairly constant from day to day? Weather is the condition of Earth's atmosphere at a particular time and place. But what is the atmosphere? Earth's atmosphere is the layer of gases that surrounds the planet. To understand the size of the atmosphere, imagine if Earth were the size of an apple. If you breathed on the apple, a thin film of water would form on its surface. Earth's atmosphere is like the water on that apple – a thin layer on Earth's surface.

Earth's atmosphere makes conditions on Earth suitable for living things. The atmosphere contains oxygen and other gases that living things need to live. In turn, living things with atoms and molecules of gases moving around the globe and in and out of living things, the land and the water.

Living things also need warmth and liquid water. By trapping energy from the sun, the atmosphere keeps most of Earth's surface warm enough for water to exist as a liquid. In addition, Earth's atmosphere protects living things from the sun's dangerous radiation. It also prevents Earth's surface from being hit by most meteoroids, which are chunks of rock from outer space.

When seen from space, the atmosphere of Earth appears as a thin layer near the horizon. The atmosphere makes life on Earth possible.



The atmosphere is made up of a mixture of atoms and molecules of different kinds of gases. An atom is the smallest unit of a chemical element that can exist on its own. Molecules are made up of two or more atoms. The atmosphere of Earth is composed of nitrogen, carbon dioxide, water vapour and many other gases, as well as particles of liquids and solids. As you can see in this figure, nitrogen is the most abundant gas in the atmosphere. A little more than three quarters of the air we breathe is nitrogen. Each nitrogen molecule consists of two nitrogen atoms.

Nitrogen (78%) Oxygen (21%) Other gases (1%) Ory air in the lower atmosphere always has the same composition.

Other Gases	Percentage by volume
Argon	0.93
Carbon Dioxide	0.036
Neon	0.0018
Helium	0.00052
Methane	0.00015
Krypton	0.00011
Hydrogen	0.00005

Checkpoint

What would conditions on Earth be like without the atmosphere?



Objectives

After completing the lesson, students will be able to:

- describe the Greenhouse Effect and how human activities may be affecting the temperature of Earth's atmosphere;
- describe how human activities have affected the ozone layer.

Checkpoint

Areas too cold for farming today could become farmland, some fertile fields could become 'dust bowls', the number of hurricanes could increase, and sea levels could rise and flood low-lying coastal areas.

Pre-discussion

Ask students what they know about the possible reasons for changes in the climate such as 'Global Warming' and the 'Greenhouse Effect'. What are the reasons for warmer winters and increases in world temperatures over the previous decades?

Facts and Figures

Much of the carbon dioxide produced by burning fossil fuels is absorbed instead of staying in the atmosphere. Plants absorb carbon dioxide from the air and use it to make food in the process of photosynthesis. Rain forests absorb large amounts of carbon dioxide from the atmosphere. Not only is the destruction of rain forests reducing the amount of carbon dioxide that can be absorbed from the atmosphere, but burning them also increases the amount of carbon dioxide added to it. Farth's oceans also absorb much of the extra carbon dioxide in the atmosphere. Carbon dioxide from the air enters water by simple diffusion. As long as the concentration of carbon dioxide in ocean water is less than that of the air. carbon dioxide gas will diffuse into the water.

Reading Strategies

■ Get students to skim for the main ideas. As students go through the text, ask some random additional questions and/or elicit the meanings of difficult new words, discussing possible meanings.

Comprehension Questions

■ Students can answer the questions in pairs. Check their answers by having them read out to the class both the questions and answers.

4nswers-

- 1 Two of the most important issues facing the world today are 'Global Warming' and the climate change it causes.
- 2 Increases in Earth's temperature could be due to natural variations or as a result of human activities.
- 3 The gases in the atmosphere of Earth hold in heat from the sun, keeping the atmosphere at a comfortable temperature for living things. The process by which gases in the atmosphere of Earth trap solar energy is called the Greenhouse Effect.
- 4 Carbon dioxide is caused by the burning of wood, coal, oil and natural gases.
- 5 variation in solar energy;
- 6 Because carbon emissions can cause health problems such as eye irritation and serious respiratory diseases.
- 7 car sharing; turning lights off; eating less meat

Global Changes in the Atmosphere

Have you ever seen nervous headlines about Global Warming? If you hate cold winters and love summer sports, you may wonder what would be wrong with a slightly warmer world. Some scientists are relaxed, too. But most experts are concerned about humanity's impact on climate change. Most changes in world climates are caused by natural factors. In the last hundred years, however, human activity has also had an effect on the climate and the atmosphere of Earth. Two of the most important worldwide issues are Global Warming and the climate change it causes.

Global Warming •••

Over the last 120 years, the average temperature of the troposphere has risen by about 0.5 degrees Celsius. Was this increase because of natural variations, or was it caused by human activity? What effects could higher temperatures have? Scientists have done a great deal of research to try to answer



Sunlight enters the greenhouse and is absorbed. The interiof the greenhouse radiates back energy in the form of infrared radiation, or heat. The heat is trapped and held

The Greenhouse Effect

Gases in the atmosphere of Earth hold in heat from the sun, keeping the atmosphere at a comfortable temperature for living things. The process by which gases in the atmosphere trap solar energy is called the Greenhouse Effect.

These solar energy-trapping gases are called Greenhouse Gases. Water vapour, carbon dioxide and methane are some of the

Greenhouse Gases. Human activities that increase the level of Greenhouse Gases in the atmosphere may be warming Earth's atmosphere. The burning of coal, oil and natural

gases in power stations, and the burning of fuel in traditional vehicles, releases large amounts of Greenhouse Gases into the air. Deforestation means that trees that would normally absorb carbon dioxide cannot remove it from atmosphere. If the increased carbon dioxide means more heat is trapped, the result will be global warming: a gradual increase in the temperature of the atmosphere of

The amount of carbon dioxide in the atmosphere has been steadily increasing. Between 1900 and 2000, global carbon dioxide emissions went from 2 billion to 24 billion tons. It is predicted that if the level of carbon dioxide doubles by the year 2100, the average temperature could go up by as much as 3.5 degrees Celsius.

Checkpoint

What are three possible effects of global warming?

8

Carbon Emissions

Not everyone agrees about the causes of global warming. Some scientists believe the rise in global temperatures is due to natural variation in the climate rather than human activity. Solar energy increases and decreases over time, which could cause periods of warmer and cooler climates. The world's 1.3 billion cows, because of the large amount of methane they release, also have an impact on the Greenhouse Effect. Even if these scientists are correct, the need to reduce carbon emissions is still urgent. Human causes of carbon emissions, such as power stations and cars, also greatly pollute the air and water that humans and animals live in. This can cause health problems such as eye irritation, but can also cause serious respiratory diseases. Animals are also affected by pollution. The Chinese River Dolphin became extinct because of rising pollution levels in its home, the Yangtze River.

Cleaning the Atmosphere

How can humans reduce our impact on Earth's atmosphere? Is it a job for scientists or for everyone?

Experts are working on cleaner forms of energy production from renewable sources, such as solar or wind energy. Cleaner forms of fuel, like hydrogen fuel cells, are being developed for cars. And vehicles that are more efficient and burn less fuel are being designed.

These modern solutions, however, are often too expensive to be used. But carbon emissions can be reduced if everyone works together. Small actions, like car sharing or turning lights off when leaving a room, can make a big impact when combined. Earth Hour is an annual global event run by WWF, which demonstrates the energy saving that is possible when a great number of people stop using electricity at the same time.

Even missing the occasional burger can help! If fewer burgers are needed, fewer methane-releasing cows will be bred.

Comprehension Questions

- 1 What are two of the most important issues facing the world?
- What could cause an increase in Earth's temperature?
- Explain the 'Greenhouse Effect'.
- 4 What causes carbon dioxide levels in the atmosphere to increase?
- 5 Name a natural creator of Greenhouse Gases.
- 6 Why should humanity try to reduce carbon emissions?
- How could you help reduce carbon emissions?

9





Objectives 🔘

After completing the lesson, students will be able to:

- further describe the importance of the atmosphere;
- describe the composition of the atmosphere.

Pre-discussion



Ask students what they know about the structure of the atmosphere. Confirm that they know that weather is the condition of the atmosphere in a certain place. Discuss how damage can be done to the atmosphere.

Reading Strategies

Before students read through the text, explain that the words ending in 'sphere' are technical terms for different parts of the atmosphere. Get them to read the text through silently, then to ask you questions about any words that they don't understand. Ask the class questions and/or elicit the meanings of any new words.

nswers.

- 1 students' own answers
- 2 It contains oxygen and other essential gases for living things.
- 3 Living things need warmth and liquid water. The atmosphere traps energy from the sun and so keeps most of Earth's surface warm enough for water to exist as a liquid.

Further Information On

The Atmosphere

The atmosphere becomes thinner and thinner until it fades away into space, but approximately three quarters of the atmosphere's mass is within 11 kilometres of the surface of Earth. It is this denser part of the atmosphere that keeps conditions on Earth the same. There is no definite line between the atmosphere and outer space, although the Karman line, 100 kilometres above the surface of the planet, is often taken as the boundary (in the USA, people who travel above an altitude of 80.5 kilometres/50 miles are classed as astronauts).

The atmosphere is made up of several layers; all of which vary in thickness. The first layer is the troposphere, which goes up to between 7 and 17 kilometres from Earth's surface. Above the troposphere the layers are: the ozonosphere, the stratosphere, the mesosphere, the thermosphere, the ionosphere and the exosphere, from 500 to 10,000 kilometres up. Each layer is very different from the others, with its own distinct temperature and conditions. Some layers get cooler the higher up they qo, others get warmer.

- ① Using all the information that you have on the atmosphere, write a paragraph describing it. Make sure that you include information on both its composition and its importance.
- ② What is it about the composition of the atmosphere that helps life to exist on Earth?
- What other essential requirements for life does the atmosphere ensure?



Objectives

After completing the lesson, students will be able to:

- discuss interesting points related to the telephone;
- identify and explain key terms in the text.
- Introduce some of the vocabulary found in the text. Encourage students to work out the meanings of new words within the context of the passage, as they read and try to comprehend the reading text.

heckpoint

A telephone is an apparatus for reproducing sound, especially that of the voice by means of electricity.

Pre-discussion

Ask students if they know who invented the telephone and what advances have been made in the telecommunications field. Discuss any other inventions the students might happen to know about from their own knowledge.

Reading Strategies

■ Students read the text silently. They are encouraged to comment on some interesting points.

Comprehension Questions

- Students can answer the questions in pairs. Get students as much as possible to answer the questions using their own words.
- Check students' answers.

Answers-

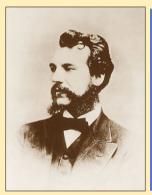
- 1 Alexander Graham Bell from Scotland invented the first telephone. It was on March 10th, 1876.
- 2 The first telephone was made of a wooden stand, a funnel, a cup of acid and some copper wire.
- 3 Bell was successful because he developed new and original ideas but did so by building on older ideas and developments. He also understood acoustics, the study of sound, and something about electricity.

- 4 Telephone comes from the Greek word tele meaning 'from afar' and phone meaning 'voice' or 'voiced sound'. Generally, a telephone is any device which conveys sound over a distance.
- 5 People in the past used to use smoke signals, mirrors, jungle drums, carrier pigeons and semaphore to get a message from one point to another.
- 6 Throughout his life, Alexander Graham Bell was interested in the education of deaf people. This interest lead him to invent the microphone.
- 7 Originally, the telephone was called the 'electrical speech machine'.
- 8 Today, deaf people are able to use a special display telephone to communicate.

Alexander Graham Bell

Bell's

Telephone 🚥



On March 10, 1876, in Boston, Massachusetts, Alexander Graham Bell invented the telephone.

Thomas Watson actually made the device; a crude thing made of a wooden stand, a funnel, a cup of acid and some copper wire. But these simple parts and the equally simple first telephone call — 'Mr Watson, come here, I want you!' — hide a complicated past. Bell filed his application just hours before his competitor, Elisha Gray, filed notice to soon patent a telephone himself. Though neither man had actually built a working telephone, Bell made his telephone operate three weeks later using ideas outlined in Gray's notice of invention; methods Bell did not propose in his own patent.

The story of the telephone is similar to the story of the invention itself. Bell developed new and original ideas, but did so by building on older ideas and developments. Bell succeeded specifically because he understood acoustics, the study of sound, and something about electricity. Other inventors knew electricity well, but knew little of acoustics. The telephone is therefore a shared accomplishment among many pioneers, although the credit and rewards were not shared equally. That, too, is often the story of invention.

Telephone comes from the Greek word <u>tele</u>, meaning *from afar*, and <u>phone</u>, meaning *voice or voiced sound*. Generally, a telephone is any device that conveys sound over a distance. A string telephone, a megaphone or a speaking tube might be considered telephonic instruments, but for our purposes they are not telephones. These transmit sound mechanically and not electrically.

How's that?

Speech is sound in motion. Talking produces acoustic pressure. Speaking into the tin of a string telephone, for example, makes the line vibrate, causing sound waves to travel from one end of the stretched line to the other. But a telephone reproduces sound by electrical means. The Victorians called this 'talking by lightning'.



Telephone History -

The history of the telephone begins at the start of human history. Man has always wanted to communicate from afar. People have used smoke signals, mirrors, jungle drums, carrier pigeons and semaphore to get a message from one point to another. But a phone was something new. Francis Bacon partly predicted the telephone in 1627; however, his book New Utopia only described a long speaking tube. A real telephone could not be invented until the electrical age began. And even then, it didn't seem desirable. The electrical principles needed to build a telephone were known in 1831, but it wasn't until 1854 that Bourseul suggested transmitting speech electrically. And it wasn't until 22 years later in 1876 that the idea became a reality. Before then, a telephone might have been impossible to even think of.

A pioneer in the field of telecommunications, Alexander Graham Bell was born in 1847 in Edinburgh, Scotland. He moved to Ontario and then

to the United States, settling in Boston, before beginning his career as an inventor. Throughout his life, Bell was interested in the education of deaf people. This interest lead him to invent the microphone and, in 1876, his 'electrical speech machine'. He set up the first telephone exchange in New Haven, Connecticut. By 1884, long distance connections were made between Boston, Massachusetts and New York City.

Bell imagined great uses for his telephone, but would he ever have imagined telephone lines being used to transmit video images? Since

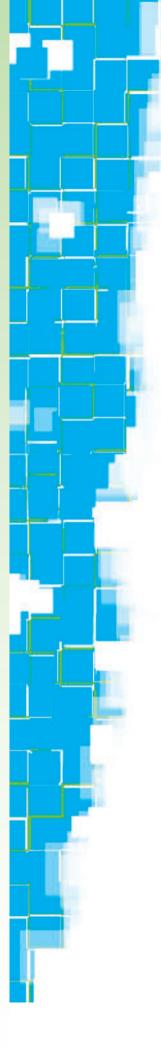
his death in 1922, the telecommunications industry has undergone an amazing revolution. Today, deaf people are able to use a special display telephone to communicate. Fibre optics are improving the quality and speed of data transmission. Actually, your ability to access this information relies upon telecommunications technology. Bell's 'electrical speech machine' paved the way for the Information Superhighway.

Checkpoint
What is a telephone?

Comprehension Questions

- 1 Who invented the first telephone? And when did he invent it?
- 2 What was the first telephone made of?
- Why was Alexander Graham Bell successful?
- What does the word telephone mean?
- 5 What kinds of communication did people use before the telephone was invented?
- What was Alexander Graham Bell interested in throughout his life?
- What was the telephone called originally?
- What are deaf people able to use today for communication?

12





Objectives

After completing the lesson, students will be able to:

- discuss why it took an inventor with background in two technical areas to develop the telephone;
- describe the long, difficult process it took Bell to invent the telephone.

Pre-discussion



Talk about any other inventions the students know about that took a long time to develop. Or talk about any other famous inventors with the class.

Reading Strategies

Students read the text silently. They are then encouraged to comment on some interesting points.

Answers

- 1 students' own answers
- 2 acoustics and electricity
- 3 the process of invention

Further Information

The Telephone

Alexander Graham Bell was an acoustics expert with an understanding of electricity. When he first thought of the principle that the telephone would be based on, he went to the famous inventor Joseph Henry who inspired him to continue its development. He acquired financial backing and hired Thomas Watson, an electrical designer and mechanic, as his assistant. They were able to combine their expertise, and with the help of their lawyers, they created and patented the first telephone. Although there was still a lot of work to be done, Bell and his team went on to become very wealthy men.

On the 14th of February 1876, while Bell was away in Boston, his lawyers filed the patent for his device at the patents office. They were only hours ahead of Elisha Gray, a rival competitor. Three days later the patent was issued. Bell experimented with a water transmitter, using a mixture of acid and water. It was while using this that Thomas Watson clearly heard the famous line; 'Mr Watson, come here, I want you'.

- 1 Using all the information that you have on the telephone, write a paragraph describing how it was developed and how important it has become.
- 2 What two areas of expertise were required in the development of the telephone?
- 3 What process can the development of the telephone be compared to?



Objectives

After completing the lesson, students will be able to:

- discuss interesting points related to computers;
- identify and explain key terms in the text.
- Introduce some of the vocabulary found in the text. Encourage students to work out the meanings of new words within the context of the passage, as they read and try to comprehend.
- Get students to practice using the dictionary to look up new vocabulary.

heckpoint

Bill Gates co-founded Microsoft with Paul Allen. He also refocused Microsoft on the development of software solutions for the Internet.

Pre-discussion

■ Discuss with students the importance of computers in everyday life. Have an open class discussion or, alternatively, get students to form groups of three or four to discuss and make a list of all the benefits introduced by the computer age. Students discuss and make notes, then give their feedback to the class as a whole.

Reading Strategies

■ Students read the text silently. They are encouraged to comment on some interesting points.

Comprehension Questions

- Students can answer the questions in pairs. Get students as much as possible to answer the questions using their own words.
- Check students' answers.

Answers-

- 1 In 1822, in England, a man called Charles Babbage began to build and work on a counting machine which also became the first programmable machine. It was a counting machine that included programs or cards with holes in them. It also had a 'reader' that read the information and a 'memory'.
- 2 His machine was used in counting government figures such as population figures for the United States in 1890.

- 3 It was the English mathematician Alan Turing who really started the computer age.
 He wrote a paper that outlined the details of a machine which would be able to 'think' and possess a memory. This new machine would be able to read and write information, with a central processor and a program of mathematical commands.
- 4 The Z3 was an electrical machine controlled by a program. It was constructed by Conrad Zuse in Germany during the Second World War. It was used in the building of aeroplanes and the V2 Rockets.
- 5 There were two problems associated with the ENIAC computer: the first problem was that it needed a huge quantity of electricity; the second problem was that it became very hot.
- 6 Today, hundreds of thousands of electronic parts can be placed together on a board that measures no more than one square centimetre.

Computers

Not long ago, all letters were written by hand or on typewriters, and information was held mainly in libraries. Affordable personal computers only appeared in the 1980s, followed by the Internet and e-mail a few years later. It is easy to forget how recent these inventions are.

Charles Babbage -

In 1943, Thomas J. Watson, who started the company IBM, said that he thought there was a world market for about five computers. He was very wrong. There are now over 100 million personal computers in use around the world – as well as the bigger computers used by large organisations. In 1822, in England, Charles Babbage began working on a counting machine. He was given £1,500 of government money to complete the job, and worked on it for the next ten years. This became known as the Difference Engine Number 1. The government's patience finally ended in 1834, when Babbage still hadn't finished building it, but had planned the first programmable computer. This included programs (written using cards with holes in them), a reader which was able to get results from the information, and a memory – all things that were found in later computers.

Babbage asked the government for money to make the new machine, but was refused. He then built the Difference Engine Number 2. At two metres high, this was a slightly smaller and much simpler model, which used only a small number of the 25,000 parts in the first machine. In 1991, 100 years after Babbage's death, a copy was built using his plans. It did what Babbage said it would do. Babbage wasn't recognised in his lifetime. Very few people knew about his work and most of them weren't interested.

Early Computers 🕳

Later in the 19th century, in the US, Herman Hollerith used cards with holes when he invented a machine to count government figures more quickly. The 1880 population count had taken eight years, and people were worried that the 1890 one would take even longer. Hollerith's machine, which used electricity to read, sort and count the cards, did the job in a year.

The English mathematician Alan Turing led the move towards a machine that was able to 'think' in a real way. He wrote a paper about a machine that could read and write information, with a memory to hold it in, a central processor, and a program of mathematical commands. This became known as a 'Turing Machine'. This was the real start of the computer age.

During the Second World War, Turing worked on reading secret German messages. The work also included the building of a simple computer. After the war, he used his knowledge of mathematics to write the first programming languages.

In Germany, Konrad Zuse started work on his first mechanical computer in 1934, but two years later he changed to using electrical connections. In 1940, the war interrupted the building of his third computer, but after a year he left the army and completed the Z3, an electrical machine which was controlled by a program. The German air force helped him, and the Z3 was used to help build aeroplanes and the V2 rockets. At the end of the war, Zuse's latest machine was taken to Switzerland to be finished.

This was the Z4, the first fully-programmable computer. It had a mechanical memory of 1,024 words.



The first of the modern all-electronic computers was the ENIAC, built at the University of Pennsylvania. It was begun in 1943 and used by the US army. It was 150 square metres in size and needed an enormous amount of electricity. It also became very hot, which was a great problem.

The first computer for business use, the UNIVAC 1, was also used to count population. It became famous when it said that Dwight D. Eisenhower would win the race to become president in 1952. Its operators refused to believe this and reprogrammed it for a more likely result. When Eisenhower won easily, somebody said, "The problem with machines is people."

In the late 1950s, the transistor was invented. This was cheaper, smaller and worked better than the old electronic connections. In 1958, Jack St. Clair Kilby of Texas Instruments had the idea of putting a few transistors together

on a board. Today, hundreds of thousands of electronic parts can be put together on a board that is no more than one centimetre square.

Among a number of computer hobbyists in California were Bill Gates and Paul Allen, who started Micro-soft (later Microsoft). IBM, which had seen the success of the Apple II, was interested in selling its own machine. Microsoft was given the job of writing the operating system. IBM could use this system, but not own it, so Microsoft received \$10 for every copy sold. IBM had failed to realise that systems, not machines, were going to make money in the future. This was possibly the biggest mistake in the history of computers.

Checkpoint
Who is Bill Gates?

Comprehension Questions

- 1 How did Charles Babbage contribute to the development of computers?
- What did Herman Hollerith's machine do?
- 3 Who really started the computer age? And how?
- 4 What was the Z3? And, what was it used for?
- What were the problems with the ENIAC computer?
- **6** What is the significance of the transistor?

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After completing the lesson, students will be able to:

- discuss the key developments in the computer age;
- identify the key characteristics of modern computers.

Pre-discussion

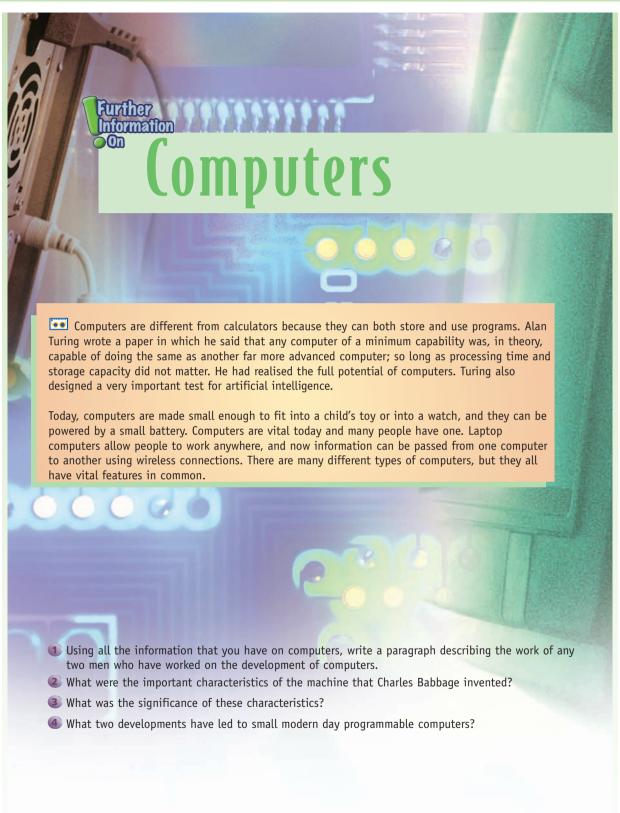
Ask students to talk about the most important or impressive capabilities of modern computers.

Reading Strategies

Students read the text silently. They are then encouraged to comment on some interesting points.

Answers

- 1 students' own answers
- 2 programs, a reader and memory
- 3 These were all the things that were found in later computers.
- 4 Turing's paper about a machine that read and wrote information, with a memory to hold it, a central processor and a program of mathematical commands.
 - In 1958, Jack St Clair Kilby invented the transistor.





After completing the lesson, students will be able to:

- list the harmful chemicals contained in tobacco smoke:
- explain how tobacco smoke harms the respiratory and circulatory systems.
- Pre-teach some of the vocabulary found in the text. Encourage students to work out the meanings of new words within the context of the passage, as they read and try to comprehend.

heckpoint

Tar makes cilia clump together so they cannot stop harmful materials from travelling to the lungs. Tar also contains chemicals that cause cancer.

Pre-discussion

■ Discuss with students what their attitudes and opinions are about smoking. Have an open class discussion or, alternatively, get students to form groups of three or four to discuss the issue. Students discuss and make notes, then give their feedback to the class as a whole.

Reading strategies

■ Make a list of smoking-related health problems that you already know about. After students make their lists, invite volunteers to read items from their lists to the class. Then lead students in a discussion of other types of problems related to smoking, such as stained fingers and teeth, litter from cigarettes and their packaging, and fires.

Comprehension Questions

- Students can answer the questions in pairs. Get students as much as possible to answer the questions using their own words.
- Check students' answers.

nswers-

- 1 The 'aliens' are not creatures from space. They are substances found in cigarette smoke. These 'aliens' are pulled into the nose when breathing in. The cilia in the nasal cavities trap some aliens, and others get stuck in mucus. Many aliens implant themselves in the alveoli.
- 2 Every time a smoker takes a puff from a cigarette, he/she inhales over 4,000 different chemicals.

- 3 Tar is the dark, sticky substance which forms when tobacco burns. Tar settles on cilia that line the trachea and other respiratory organs. It makes cilia clump together so that they cannot prevent harmful materials from getting into the lungs. Tar contains chemicals that have been shown to cause cancer.
- 4 The molecules of the carbon monoxide bind to haemoglobin in red blood cells and take the place of some of the oxygen in the red blood.
- 5 Nicotine is another dangerous chemical found in tobacco. Nicotine is a drug that speeds up the activities of the nervous system, heart and other organs. It makes the heart beat faster and blood pressure rise. Nicotine causes addiction, or physical and psychological dependence. Smokers feel an intense need, or craving, for a cigarette if they go without one. Addiction to nicotine is one reason why smokers have difficulties quitting.
- 6 Smokers might not be able to do sports because of decreased oxygen intake. Long-term or heavy smokers may be short of breath during light exercise.
- 7 Some serious respiratory problems can result from long-term smoking.

Smoking and Your Health

hoosh! Millions of tiny but dangerous aliens are invading the respiratory system. The aliens are pulled into the nose when breathing in. The cilia in the nasal cavities trap some aliens, and others get stuck in mucus. But many aliens get past these defences. After tumbling in air currents, thousands of the invaders enter the lungs. Many aliens implant themselves in the alveoli! The 'aliens' are not tiny creatures from space. They are the substances found in cigarette smoke. In this section you will learn how tobacco smoke damages the respiratory system.

Chemicals in Tobacco Smoke

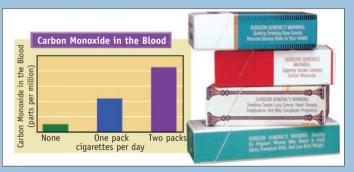
With each puff, a smoker inhales over 4,000 different chemicals. Some of the most deadly chemicals in tobacco smoke are tar, carbon monoxide and nicotine.

Tar

The dark, sticky substance which forms when tobacco burns is **tar**. When someone inhales tobacco smoke, some tar settles on cilia that line the trachea and the other respiratory organs. Tar makes cilia clump together so that they can't prevent harmful materials from getting into the lungs. Tar also contains chemicals that have been shown to cause cancer.

Carbon Monoxide

Some substances, including tobacco, produce a colourless, odourless gas when burned. This gas is **carbon monoxide**. This is dangerous to inhale because its molecules bind to haemoglobin in red blood cells. When carbon monoxide binds to haemoglobin, it takes the place of some of the oxygen that the red blood cells usually carry, so they



carry less than their normal load of oxygen throughout the body. To make up for the lack of oxygen, the breathing rate increases and the heart beats faster. Smokers' blood may contain too little oxygen to meet their bodies' needs.

Nicotine

Another dangerous chemical found in tobacco smoke is **nicotine**. Nicotine is a drug that speeds up the activities of the nervous system, heart and other organs. It makes the heart beat faster and raises blood pressure. Nicotine causes addiction, or physical and psychological dependence. Smokers feel an intense need, or craving, for a cigarette if they go without one. Addiction to nicotine is one reason why smokers have difficulty quitting. Nicotine patches or nicotine gum can help ease this need.

Respiratory System Problems 🖼

Tobacco smoke harms the respiratory system in several ways. For example, because their cilia can't sweep away mucus, many smokers have a frequent cough. The mucus build up also limits the space for air flow, decreasing oxygen intake. Because they are not getting enough oxygen, smokers may not be able to participate in vigorous sports. Long-term or heavy smokers may be short of breath during light exercise.

Some serious respiratory problems can result from long-term smoking. Over time, smokers can develop bronchitis, emphysema and lung cancer. Tobacco smoke is the most common preventable cause of major illness and death.

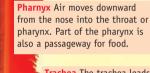
PUT IT OUT BEFORE IT PUTS YOU OUT!

EXPLORING the Respiratory System

On its path into the lungs, air passes through several structures

that clean, warm and moisten it. Once in the lungs, the oxygen in the air can enter your bloodstream.

Nose Air enters the body through the nostrils. The lining of the nose is coated with cilia and mucus, which trap particles, and warm and moisten the air.



Trachea The trachea leads from the pharynx to the lungs. The walls of the trachea are made up of rings of cartilage which protect the trachea and keep it from collapsing.

Lungs After it reaches the lungs, air moves through smaller and smaller bronchi until it reaches the alveoli. In the alveoli, oxygen passes into the blood and carbon dioxide passes out of the blood.



Bronchus Air moves from the trachea into the right and left bronchi. One bronchus leads to each lung. Part of each bronchus is outside the lung and part is inside.

Comprehension Questions

- What are the 'aliens'? And, what do they do?
- When a smoker smokes a cigarette, what happens?
- What is tar? And, what does it do to the respiratory system?
- 4 How is carbon monoxide harmful?
- What is nicotine? And, is it safe for the human system?
- Why might smokers not be able to do sports?
- What can result from smoking in the long-term?

18



Checkpoint



After completing the lesson, students will be able to:

- describe MyPyramid and state how it can be used to plan a healthy diet;
- list and describe the information that is included on nutrition labels.

Checkpoint

Food made from grains, such as bread, cereal, rice and pasta.

Pre-discussion

■ Have students discuss what constitutes healthy eating. Are people in general or the students themselves eating healthily? Have an open class discussion or, alternatively, get students to form groups of three or four to discuss the issue. Students discuss and make notes, then give their feedback to the class as a whole.

Reading Strategies

■ While students preview MyPyramid, point out that the foods within each group of the pyramid supply similar nutrients. Point out and discuss the relationship between the shape of MyPyramid and the number of recommended servings of foods in each group.

Comprehension Questions

- Students can answer the questions in pairs. Get students as much as possible to answer the questions using their own words.
- Check students' answers.

4nswers-

- 1 Healthy eating can involve eating more fruits and vegetables, not skipping breakfast, and cutting down on soft drinks and chips.
- 2 'Food Labels' include the specific nutritional information that are required by all food except meat, poultry, fresh vegetables and fresh fruit.
- 3 MyPyramid has been developed by nutritionists to help people plan a healthy diet.
- 4 Grains include cereals, bread, crackers, rice or pasta.
- 5 Orange is grains. Green is vegetables. Red is fruits. Yellow is oil. Blue is milk. Purple is meat and beans.
- 6 To find the balance between food and physical activity, you have to:
 - be sure to stay within your daily calorie needs.
 - be physically active for at least 30 minutes most days of the week as an adult and for 60 minutes every day, or most days as a child and a teenager.
 - spend about 60 minutes a day of physical activity to prevent weight gain.
 - exercise at least 60 to 90 minutes a day to sustain weight loss.



Healthy Eating

What is a 'Healthy Diet'? ••

Eating more fresh fruits and vegetables? Not skipping breakfast? Cutting down on soft drinks and chips?

The six types of nutrients: carbohydrates, fats, proteins, vitamins, minerals and water are part of a healthy diet.

The Dietary Guidelines describe a healthy diet as one that:

- emphasises fruits, vegetables, whole grains and fat-free or low-fat milk and milk products;
- includes lean meats, poultry, fish, beans, eggs and nuts;
- is low in saturated fats, trans fats, cholesterol, salt (sodium) and added sugars.

Luckily, nutritionists have developed some aids: Food Labels and MyPyramid.

Food Labels

After a long day, you and your friends stop at a store on your way home from school. What snack should you buy? How can you make a wise choice?

One thing you can do is read the information provided on food labels. The United States Food and Drug Administration (FDA) requires that all food items except meat, poultry, fresh vegetables and fresh fruit must be labelled with specific nutritional information.

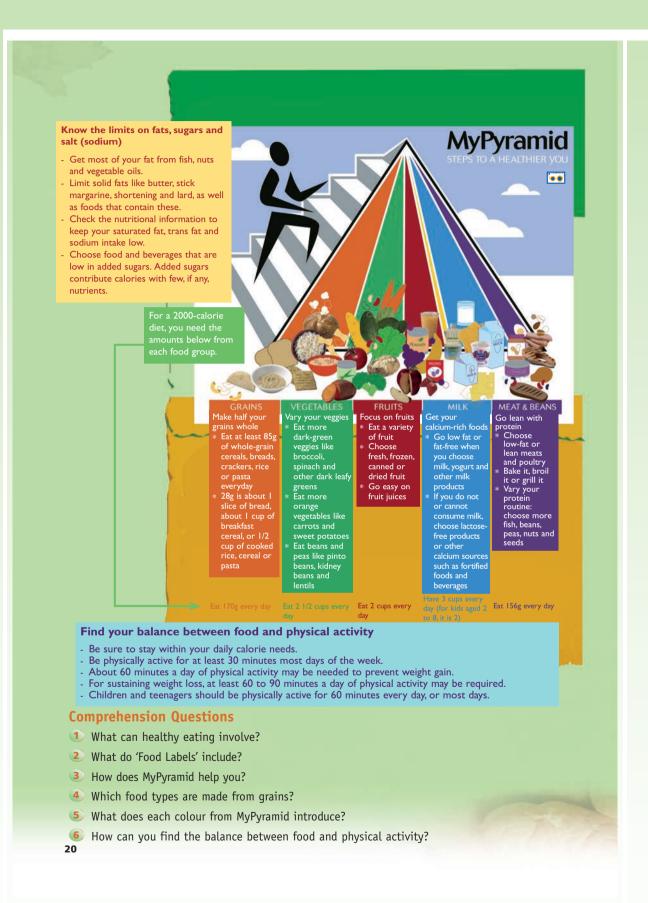
Checkpoint

What types of food should make up the largest portion of a person's diet?

MyPyramid ••

MyPyramid has been developed by nutritionists to help people plan a healthy diet. MyPyramid separates food into six groups. It also indicates how many servings from each group should be eaten every day to maintain a healthy diet. You can combine the advice within the pyramid with knowledge of your own food preferences. By doing this, you can have a healthy diet containing foods you like.







After completing the lesson, students will be able to:

- discuss the relation between healthy eating, regular exercise and smoking;
- identify and explain key terms in the text.

Pre-discussion

Ask students what they know about the impact of smoking on your general health. Ask them if/how the attitude to smoking is changing. Ask them about their lifestyles.

Reading Strategies

Ask students to make lists of things that they should and should not do to lead a healthy lifestyle. Then lead students in a group discussion on healthy lifestyles.

nswers

- 1 students' own answers
- 2 It affects the ability to do sports, and in older age can lead to poorer health.
- 3 A healthy diet, regular exercise and not smoking

Further Information

Smoking and Lifestyle

Even if you eat five portions of fruit and vegetables a day and exercise regularly, healthy behaviour means little if you are a smoker.

Everyone knows that smoking is bad for your health, but not enough people give it their full attention. There are many diseases caused by smoking: most are from smoking-related cancers, but there are also other serious diseases such as cardiovascular disease and emphysema.

The main concern for those who smoke is the risk of an early death, as it is now widely known that many smokers die young. However, there are other risks too; smokers generally suffer from poorer health in old age. One of the biggest concerns over smoking is the damage that it does to the health of non-smokers through passive smoking.

On the other hand, more and more people are becoming aware of a complete healthy lifestyle. A very important part of this is obviously diet. Most food packages have detailed information on nutrition, and calculating the nutritional value of your diet is an important step towards leading a healthier lifestyle.

- 1 Using all the information that you have on smoking, write a paragraph on the health risks of smoking.
- 2 How does smoking affect your day-to-day lifestyle?
- What are the three most important features of a healthy lifestyle?



After completing the lesson, students will be able to:

- explain how humans helped to travel to space;
- list the uses for satellites and space stations.

Pre-discussion

As a pre-discussion activity, have students form groups of three or four to discuss and write down points about the topic for later feedback to the rest of the class.

Facts

Artificial satellites used for communications are generally very reliable. However, on May 19. 1998. a satellite called Galaxy 4 went out of service when its onboard control system failed and the satellite rolled out of position. Its failure interrupted communications systems all over the United States and the Caribbean. Because a majority of pager companies in the United States relied on Galaxy 4, approximately 40 million pager users lost service. In addition, television and radio networks used Galaxy 4 to transmit feeds to their stations, so these transmissions were interrupted too. The problem also halted the operation of bank automated teller machines and the systems customers use at gas stations to pay with credit cards. To re-establish service, the company that owns Galaxy 4 had to reposition another satelitte.

Reading Strategies

■ Suggest students write their who, what and how questions in columns under those headings. Encourage them to answer their questions based on what they already know, and revise their answers as they read. Questions may include 'Who is Sergei Korolev?' and 'What did he design?'

Comprehension Questions

- Students can answer the questions in pairs. Get students as much as possible to answer the questions using their own words.
- Check students' answers.

4nswers-

- 1 58 years
- 2 Wernher von Braun
- 3 Designer Sergei Korolev was impressed by Yuri Gagarin's manners in taking off his shoes. This led to him being chosen for the mission.
- 4 his ability to pilot the moon lander
- 5 A satellite is any natural or artificial object that revolves around an object in space, just as the moon revolves around Earth. Satellites are used for communications, navigation, collecting weather data and research. Artificial satellites are used to relay telephone calls, to measure the atmosphere of Earth and to photograph weather systems, crops, troops and ships.
- 6 Global Positioning Satellites give off signals which are picked up by small receivers on Earth. These receivers can tell you where you are on the surface of Earth.
- 7 Due to the Geosynchronous Satellites, the 2008 Beijing Olympic Games was broadcast to 70% of the world's population.
- 8 The United States and Russia, as well as sixteen other countries, are co-operating on the International Space Station.

Humans in Space

SPACE PIONEERS

Astronomy is one of the world's oldest sciences, with the earliest Babylonian star catalogues being made in 1200 BCE. But it is only with recent technology that humanity has been able to leave Earth's atmosphere. After the first flight in 1903, scientists and explorers managed to launch humans into space remarkably quickly. These are the pioneers who helped to achieve this dream.

Sergei Korolev

Born 12th January 1907, Zhytomyr, Russian Empire

Sergei Korolev was the driving force behind the Soviet space programme. He designed Sputnik, the first satellite to orbit Earth, and the Vostok spacecraft, which sent the first man into space. Known to the public as the Chief Designer, his name was only released many years after his death in 1966. Korolev pushed himself extremely hard in order to beat the United States in the Space Race, as well as to maintain funding for the Soviet space programme. This effort brought him serious health issues. He died only three years before the American lunar landing; his death at the time when he was developing his own lunar programme was a large factor in the United States being the first nation to reach the moon.

Wernher von Braun

Born 23rd March 1912, Wirsitz, German Empire

Wernher von Braun started his rocketry career in Germany. He designed the V-2 rockets that were used by the German Army. His great passion, however, was space travel. He improved the V-2 design for NASA in the United States, leading eventually to the Saturn V rocket, which carried astronauts to the moon. He initially struggled in America with the conditions under which he and his team worked, but was given greater resources when the government started competing in the Space Race more seriously. Von Braun was famous, appearing on television and working with Disney on *Man in Space*. This was in contrast to the secrecy of his great rival, Sergei Korolev, whom he never met.

Yuri Gagarin

Born 9th March 1924, Khushino, Russia

Yuri Gagarin was the first person to go into space. He orbited Earth in the Vostok spacecraft on the 12th of April, 1961. Gagarin was one of 20 potential cosmonauts in the training programme. He excelled in the programme, and his small size meant he was suited to the tiny spacecraft. He was also a likable man, impressing Sergei Korolev when he was the only man to remove his shoes before entering the training capsule. His ability and popularity led him to be chosen for the first mission into space by 16 of the 19 other candidates. After his trip to space, he became a national hero, earning the highest possible recognition.

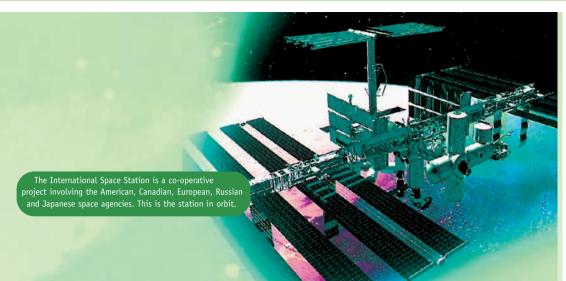
Neil Armstrong

Born 5th August 1930, Wapakoneta, United States

Neil Armstrong was the first man on the moon. He was launched into space with Buzz Aldrin and Michael Collins by the Saturn V rocket. Armstrong and Aldrin then set foot on the moon on the 20th of July, 1969. As Armstrong made his first step, he famously said, "That's one small step for a man; one giant step for mankind." He was chosen as command pilot for the mission because of his great skill at piloting the moon lander. During training, he tested the abilities of the lander to the limit so that he knew exactly what it was capable of. In one session, he ejected only half a second before the time when his parachute would no longer have opened. His ability was needed as he landed on the moon. The landing area was too dangerous for an automatic landing, so he had to pilot the lander manually.



22



ARTIFICIAL SATELLITES

The world was astounded on the 4th of October, 1957, when the Soviet Union launched the first artificial satellite into orbit around Earth. A satellite is any natural or artificial object that revolves around an object in space, just as the moon revolves around Earth. This satellite, Sputnik 1, orbited Earth every 96 minutes. Three months later, the United States launched Explorer 1 into orbit. Since then, thousands of artificial satellites, including space stations, have been launched into orbit. Satellites and space stations are used for communications, navigation, collecting weather data and research.

Satellites

Artificial satellites are used to relay telephone calls, to measure the atmosphere of Earth and to photograph weather systems, crops, troops and ships. In addition, two dozen Global Positioning Satellites give off signals that can be picked up by small receivers on Earth, which can then tell you exactly where you are on the surface of Earth. Geosynchronous Satellites revolve around Earth at the same rate that Earth rotates. Above the equator, they seem to hover over a given point on Earth. These satellites are used to map weather patterns and to relay television signals. Using these satellites, the 2008 Beijing Olympic Games was broadcast to an estimated 4.7 billion people: 70% of the world's population!

Space Stations

A space station is a large satellite that people can live in for long periods. The first space station, the Soviet Union's **Salyut**, was launched in 1971. In 1973, the United States launched **Skylab**, which carried a series of telescopes and scientific experiments. The former Soviet Union, which included Russia, launched the **Mir** space station in 1986. Astronauts from many countries, including Americans, visited **Mir**. Five space agencies, including the American and Russian agencies, are co-operating on the **International Space Station**, which is currently in orbit, and has been continually inhabited by different astronauts for over a decade.

Comprehension Questions

- 1 How long did it take humanity to get into space after the first flight?
- Which designer was well known during his life?
- 3 How did shoes play a role in the first manned mission to space?
- 4 What skill made Armstrong suitable for his job?
- 5 What does the word 'satellite' mean? And, what are they used for?
- What do Global Positioning Satellites do?
- How were Geosynchronous Satellites useful in the summer of 2008?
- What are the United States and Russia co-operating on?



After completing the lesson, students will be able to:

- explain the Big Bang theory of how the universe was formed:
- describe how the solar system was formed.

heckpoint

The galaxies are moving away from each other.

Pre-discussion

Ask students what they know about the universe. As a pre-discussion activity, have students form groups of three or four to discuss and write down points about the topic for later feedback to the rest of the class.

Facts

Without the work of Henrietta Swan Leavitt (1868-1921), another American astronomer, Edwin Hubble, could not have discovered that the farther a galaxy is from Earth, the faster it is moving away. Leavitt was born in Massachusetts and attended what is now Radcliffe College, graduating in 1892. While working at Harvard College Observatory. Leavitt found a new method of measuring distances to galaxies by studying a certain type of variable star in them. Hubble combined his own measurements of the distances of galaxies with another astronomer's measurements of the speeds at which they are moving away and realised that the two are related.

Reading Strategies

■ After students write down what they already know, have them look at the photographs and read the captions in the section. Encourage them to jot down questions they have about the Big Bang and about the information in the photographs and captions.

Comprehension Questions

- Students can answer the questions in pairs. Get students as much as possible to answer the questions using their own words.
- Check students' answers.

🖊 nswers- -

- 1 No, you don't need a telescope. The Andromeda Galaxy can be seen with the naked eye.
- 2 These galaxies are billions of light-years away.

- 3 Only a few nearby galaxies are moving towards our galaxy.
- 4 In the 1920s, Edwin Hubble discovered that the farther away a galaxy is from us, the faster it is moving away from us.
- 5 The text compares the expanding universe to bread dough with raisins. As the bread dough rises the distance between the raisins becomes greater. The further away a raisin is, the faster it is moving away because of the greater amount of dough between you and the raisin.
- 6 Billions of years ago, the universe was small, hot and dense. The universe then exploded in what astronomers call the Big Bang.
- 7 The galaxies have been moving away from each other since the Big Bang.
- 8 The spheres closest to the sun lost most of their gases and became the inner planets Mercury, Venus, Earth and Mars.
- 9 One possibility is that the universe will continue to expand, as it is doing now. All of the stars will eventually run out of fuel and burn out, and the universe will be cold and dark. Another possibility is that the force of gravity will begin to pull the galaxies back together. The result will be a reverse Big Bang, or 'Big Crunch'. All of the matter in the universe will be crushed into an enormous black hole.

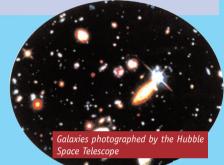
History of the Universe

The Andromeda Galaxy is the most distant object you can see with the naked eye. Light from this galaxy has travelled for 2 million years before reaching your eyes. When that light finally reaches your eye, you are seeing what the galaxy looked like 2 million years ago. It is as if you are looking back in time. Astronomers have photographed galaxies that are billions of light-years away. Light from these galaxies travelled for billions of years before it reached telescopes on Earth. From these observations, astronomers have inferred that the universe is incredibly billions of years old.

Moving Galaxies

To study how and when the universe formed, astronomers use information about how galaxies are moving. Astronomers can measure how far away different galaxies are. By examining the spectrum of a galaxy, astronomers can tell how fast the galaxy is moving, and whether it is moving away from our galaxy or towards it. Only a few nearby galaxies are moving towards our galaxy. In the 1920s, Edwin Hubble, an American astronomer, discovered that the farther away a galaxy is from us, the faster it is moving away from us. The Hubble Space Telescope was named after Hubble in honour of this and other important discoveries.

To understand how the galaxies are moving, think of raisin bread dough that is rising. If you could shrink yourself to sit on a raisin, you would see all the other raisins moving away from you as the bread dough rose. The farther away a raisin was from you, the faster it would move away, because there would be more bread dough to expand between you and the raisin. No matter which raisin you sat on, all the other raisins would seem to be moving away from you. You could tell that the bread dough was expanding by watching other raisins. The universe is like the raisin dough. The galaxies in the universe, like the raisins in the dough, are moving away from each other. In the universe, it is space that is expanding, like the dough between the raisins.



The Big Bang Theory

To understand how the galaxies moved in the past, imagine you could run time backward. All of the galaxies would then be moving together instead of apart. All of the matter in the universe would eventually come together at a single point. At that time, billions of years ago, the universe was small, hot and dense. The universe then exploded in what astronomers call the Big Bang.

According to the Big Bang Theory, the universe formed in an enormous explosion about 14 billion years ago. Since the Big Bang, the universe has been expanding rapidly. Because of the Big Bang, the universe is billions of times larger than it was billions of years ago. To understand this change in size, picture a tiny pea. Pretend you can blow it up to be as big as Earth. You would be inflating the pea by about two billion times. Like the pea, the universe in which you live was once very small. The universe has been growing rapidly ever since the Big Bang. Astronomers have concluded that the galaxies are moving away from each other as a result of the Big Bang.

Since astronomers know approximately how fast the universe is expanding now, they can infer how long it has been expanding. Astronomers estimate that the universe has been expanding 14 billion years.

Most of the distant galaxies astronomers have observed are moving away from our galaxy.

Checkpoint

Which way are most galaxies moving relative to each other?

Formation of the Solar System 🚾

After the Big Bang, matter in the universe separated into galaxies. Gas and dust spread throughout the space in our galaxy. Where the solar system is now, there was only cold, dark gas and dust.

About five billion years ago, a giant cloud of gas and dust, or a nebula, collapsed to form the solar system. Slowly the nebula shrank to form a spinning disk. As gravity pulled some of the gas into the centre of the disk, the gas became hot and dense enough for nuclear fusion to begin. The sun was born.

Elsewhere in the disk, gas and dust formed solid spheres smaller than the sun. The spheres closest to the sun lost most of their gases and became the inner planets Mercury, Venus, Earth and Mars. The spheres farthest from the sun became the gas giants: Jupiter, Saturn, Uranus and Neptune. Between the inner planets and the gas giants, the asteroids formed. Beyond the gas giants, a huge cloud of ice and other substances formed. This cloud is probably the main source of comets. Pluto also formed in this region.

The Future of the Universe **55**

What will happen to the universe in the future? One possibility is that the universe will continue to expand, as it is doing now. All of the stars will eventually run out of fuel and burn out, and the universe will be cold and dark. Another possibility is that the force of gravity will begin to pull the galaxies back together. The result will be a reverse Big Bang, or 'Big Crunch'. All of the matter in the universe will be crushed into an enormous black hole.

Which of these possibilities is more likely? The answer depends on how strong the total force of gravity pulling the galaxies together is. This force depends on the total mass of the universe. It is very difficult for astronomers to estimate this mass because much of it is in the form of particles that do not give off electromagnetic radiation. The evidence so far suggests that the total mass of the universe is not great enough to pull the galaxies back together again. However, more research needs to be done to solve this problem.

Astronomy is one of the oldest sciences, but there are still many discoveries to be made and puzzles to be solved about this universe of ours!

Comprehension Questions

- Do you need a telescope to see the Andromeda Galaxy?
- How far away are these galaxies?
- How many galaxies are moving towards our galaxy?
- What discovery did Edwin Hubble make in the 1920s?
- What does the text compare the expanding universe to?
- 6 How was the universe formed billions of years ago?
- What have the galaxies been doing since the Big Bang?
- **8** How did the planets Mercury, Venus, Earth and Mars come into existence?
- What might happen to the universe in the future?

This engineer is checking data from the Hubble Space Telescope The telescope can be controlled from this room.

25





After completing the lesson, students will be able to:

- discuss some important events in the history of space discovery;
- identify and explain key terms in the information they have on space travel and satellites.

Pre-discussion

Ask students what they know about the first people to go into space. Ask students what the most important developments in the history of space travel are.

Reading Strategies

Students read the text silently. They are then encouraged to comment on some interesting points.

Answers

- 1 students' own answers
- 2 students' own answers
- 3 Artificial Satellites



Many people know about the first man into space and the first man on the moon. Yuri Gagarin and Neil Armstrong are names that people always associate with space travel. However, not many people know about the very first traveller from Earth. Her name was Laika; she was a dog.

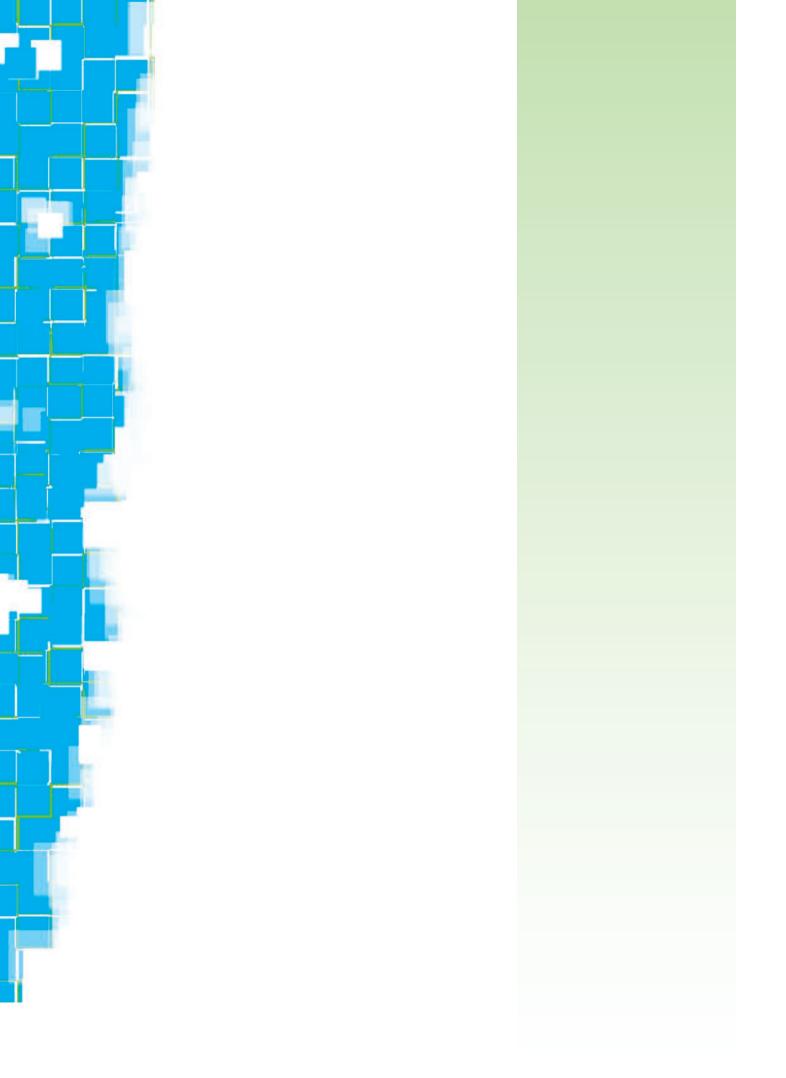
Before a human was sent into space, it had to be established whether a living creature could survive in a weightless environment. The Soviet Union took stray dogs from the streets of Moscow and trained them for space travel. They were put into progressively smaller cages for fifteen to twenty days at a time. Three dogs were used during the development stage of the mission: Laika, Albina and Mushka.

Russia had already astounded the world by launching Sputnik 1 into orbit only a few weeks before; now it was amazed again as Laika was launched into space on board Sputnik 2. Officials announced shortly after the launch that the dog would not be coming back.

In order for her to survive a few days, there was an oxygen generator, a carbon dioxide absorbing device and a cooling fan so that the temperature would not exceed 15 degrees Celsius. There was also food for her, which was a kind of jelly.

An official statement later announced that Laika had survived four days. However we now know that she died within a few hours, by the fourth orbit, from overheating and stress. Sputnik 2 circled the Earth 2,570 times before finally burning up in the Earth's atmosphere. Laika proved that living creatures could survive weightlessness, and this was one of the essential discoveries needed before Man could travel into space.

- 1 Using all the information available to you, write a paragraph on what you consider to be the most important discoveries for space travel.
- Choose two of the space scientists you read about, and write about how they helped make space travel possible.
- 3 What invention has proved to be the most important in day-to-day life?



Journey to the Centre of the Earth

Before you start the lesson, ask students to speculate about what happens in the story. Ask students to give reasons for their choices. If students disagree, do not give the correct answers at this stage but wait until they have read the story.

Ask students if they know of any volcanoes, if so ask them to tell the class what they know about them.

Before students start reading the story, discuss the following three points with them:

- **a)** Jules Verne was always fascinated in travel and adventure. Once when he was growing up in Nantes, in France, he hid on a ship that was travelling to the West Indies. However, his father found out and was waiting for him at the first port.
- **b)** He studied law at university, but he found this dull, and he loved writing so he wrote theatre pieces and imaginative adventure stories.
- **c)** He had to work very hard as a writer, and it took him many years of trying before he found a publisher. His publisher, Mr Hetzel helped him a lot and helped Verne re-write his stories to appeal to the market.

Ask students what type of story, and what type of writing they expect now.

Answers to 'Journey to the Centre of the Earth'

1

- a Otto Lidenbrock was Axel's Uncle.
- b Martha was the cook.
- c Snorri Sturlasson was the author of the book.

2

- a T
- b T
- c F
- d F

3

His uncle would want to go into the crater himself, taking Axel with him. Axel thought that they would never return.

4

- a A
- b L
- с А
- d L

5

So that he could find out more about the volcano

6

Because they needed Hans' help and he did not want to scare him

7

- a Axel was worried about entering the crater because the volcano might not be extinct.
- b It was hard to breath at the top of Sneffels because of the thin air.
- c They did not know which of the chimneys to enter because there was no shadow as the sun was hidden by cloud.

Ω

He said that when they got through the lava walls there would be plenty of water.

9

The rocks in the eastern passage where much younger which meant that they were heading away from the centre. He was right.

10

Because the water would flow downhill

11

afceb g d

12

He calculated the distance between them from number of seconds it took for his voice to travel to Axel.

13

Because there was light coming from outside, and he could hear the sound of waves breaking

14

It had a flat head, no tail and no eyes.

15

A ball of fire flew straight at them.

16

man

17

- a Mammoths are much bigger than elephants.
- b They have much longer tusks than elephants.
- c They are now extinct on the surface of Earth.

18

They stand for Arne Saknussem. They found them carved on the rock at the entrance to a dark tunnel. A great traveller had been here before them.

19

There was no snow or ice, the sun was very hot and the earth was dry.

20

Answers will vary.



Further Information on 'Journey to the Centre

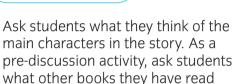
of the Earth'

Objectives

After completing the lesson, students will be able to:

- discuss some important and interesting points raised in the text;
- describe any new perspective that they have on the story 'Journey to the Centre of the Earth'.

Pre-discussion



and ask them to describe the main characters in them.

Reading Strategies

Get different students to read out each paragraph aloud. Discuss the text and any vocabulary as you go through.

4nswers

- 1 students' own answers
- 2 No. He seems very unreliable and badly organised.
- a) disorganised, easily excited, brave, determined, clever
 b) sensible, intelligent, nervous

Further Information on 'Journey to the Centre of the Earth'

In 'Journey to the Centre of the Earth', Jules Verne took a new and surprising approach to fiction, by using a sixteen-year-old boy as a main character and narrator for an adventure story. This was possibly on the wishes of Verne's publisher, Hetzel, who wanted to sell Verne's books to teenagers. However, the new approach to storytelling was also a very effective literary device. The incredible and sometimes terrifying events of the book are not reported from the point of view of the bravest or most educated character in the book, or the most experienced traveller. They are seen from the point of view of the nervous sixteen-year-old Axel; the weakest of the three travellers. This character is swept along by events, caught up by his uncle's enthusiasm. The sights at the centre of the Earth, which are both strange and terrifying, are interpreted throughout the book by an impressionable and frightened person. This makes an already incredible and exciting story even more dramatic for the reader who only has the point of view of Axel through which to experience the events at the centre of the Earth.

- I Imagine that you are Professor Lidenbrock; write a paragraph describing the part of the journey after you climbed down the volcano crater.
- 2 Read the first four pages of the story. Does Professor Lidenbrock seem like the type of man you would trust with your life? Give a reason for your answer.
- 3 a) How would you describe Professor Lidenbrock?
 - b) How would you describe Axel?

English for Starters

English for Starters incorporates both international cultural topics as well as topics researched specifically for Syrian students learning English. The series provides examples of the natural environment of Syria and upholds the country's cultural, social and moral values on both a national and local scale. Syrian social characters, and their roles in society, play an important part in the content of the series.

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Components:

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