learning channel

STUDY Mate

Department of Education

GRADES 8–11 ISSUE 1 JULY 2007

Learning activities for Grades 8–11

Education Minister Naledi Pandor

Dear Learner

The Department of Education has launched a catch-up programme for all learners from Grade 1 to Grade 12. Read the details of the plan on page 2.

There are two main parts to the programme:

1. Learners should **intensify** their learning efforts and opportunities. There is no time to lose. From July 1 there are 100 days, including holidays and weekends, until the start of the matric examinations. From July 1 there are 130 days until mid-November when other grades write tests and examinations. Make sure you read, write and calculate every day. Don't put it off – start today.

2. A wide range of **learning materials** will be made available though the media – radio, television and newspapers.

   Every weekday the newspapers of South Africa will carry learning materials. Watch out for these.
   Mondays: Grades 1–7;
   Tuesdays: Grade 12;
   Wednesdays: Grade 12;
   Thursdays: Grades 8 –11;
   Fridays: Grades 8 –11.

   If you do not use these, please pass them onto someone who may need them.

   Copies of these materials will also be delivered to distribution points throughout South Africa. We will publish these points next week.

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Department of Education

National Recovery Plan for Education

The heads of education, mandated by the Council of Education Ministers, has developed the following national recovery plan for education, following the labour action by teachers over the past period.

Introduction

An analysis of provincial reports shows that learners have experienced different levels of disruption to their academic year. Some have lost up to three weeks of teaching, while others have lost no more than a day or two. In some cases, teaching time was not lost, but mid-year tests and exams were disrupted. This indicates the need for a broad framework rather than a "one-size fits-all" plan.

In addition to the national plan, every level of education needs to construct an appropriate recovery plan. Every teacher must have a recovery plan for their classes, mapping a route to ensure that the curriculum outcomes are achieved by the end of the year. Every school must have a recovery plan, every district, and every province, based on their special circumstances. The department will be publishing guides for schools and teachers to construct their own recovery plans.

Once there is an agreement with teachers on a return to work, urgent discussions will be held with teacher unions to determine their contribution to the recovery plan. Pupils have to date lost a maximum of 15 days of learning, out of a total of 200, and we remain convinced that intensive use of the remaining schooldays, as well as of holidays and weekends for self-study, will ensure success for learners.

The department does, however, strongly encourage and support winter schools, Saturday classes and any other catch-up programmes, offered by NGOs, schools or teachers.

The recovery plan

To ensure a coherent national plan, it was agreed that two pillars would underpin the plan.

Pillar 1: Counting down to examinations – a national effort

The first step towards a recovery of lost learning opportunities is for everyone to commit to an intensification of the current national strategy for learner attainment. All learners must be encouraged regularly to focus in a disciplined way on learning, and especially on reading, writing and calculating every day. This will be done through media campaigns, which count down towards the start of the end-of-year examinations.

To maximise learning time, matrics must remain at school right up to the start of the examinations, and earlier grades must not stay at home once matric exams begin. For them, intensive teaching and learning must continue until at least mid-November.

Learners and teachers must be supported in their efforts by parents, by school governing bodies and by the community. This is a national mobilisation to recapture the momentum towards quality education that was building before the strike action. Make it your duty to ensure that your child, your neighbour's child, every child is learning every day.

The electronic and print media will be used to urge learners, parents and the community to get involved in intensifying and supporting learning. This will include regular countdowns to the examinations as well as study tips and advice. In the absence of teachers, learners must ensure that they read, write and calculate – alone or in groups – for up to seven hours every day. This will ensure their minds remain active and exercised in preparation for a return to classes. Learners are challenged to show the nation what they are capable of and to surprise us with their results.

Pillar 2: Provision of learning support materials

The department will provide an extensive range of materials to learners who have been disadvantaged by the strike. These will include electronic and print media, which will be distributed to learners through the most accessible channels.

The electronic media includes the departmental portal – Thuthong– which carries a huge volume of materials and useful information for learners with access to the Internet.

Television and radio will also be extensively used to teach concepts and to support learners. Interactive TV shows will be broadcast from mid-July up until when the exams begin in November. Radio will be used to inform learners and parents about collection points for materials, for broadcast lessons and for "question and answer" type shows.

The print media, especially newspapers, will be used to provide a range of teaching and assessment materials, for all grades. These will include factsheets, worksheets common tasks for assessment, exemplar exams and past examination papers. One million extra copies of these supplements will be published weekly for distribution to areas not ordinarily covered by newspapers.

The department will also buy and distribute additional learning materials from publishers, including study guides and books. Provinces will establish accessible distribution points for these, which will be publicised, and each province will designate contact persons to contact for these materials.

Related matters:

Examinations

All schools must ensure the writing of mid-year examinations as soon as possible. Where necessary, these may be rescheduled for the beginning of the third term. Any exams or assessments already conducted will be considered valid, and higher education institutions will ensure applicants are not prejudiced by any delays.

Extra-mural activities

It is accepted that a healthy body is needed for a healthy mind. However, given the special circumstances we face, it has been agreed, with much regret, that events organised by the department, including the Music Eisteddfod, the Indigenous Games Festival and the Language Festival, will all be postponed for this year to ensure an undisturbed focus on teaching and learning. No activities can be allowed to distract from the task of teaching and learning, or to erode "time on task", and schools are urged to move any non-academic activities to the September or December holidays, or to next year. Events already organised for the holidays, which do not take learners out of school, are not affected by this decision and may proceed on the understanding that the organisers will take all necessary steps to avoid any disruption of teaching and learning activities.

Getting into Poetry

LESSON 1

Structure of Poems

This lesson will help you to identify structural elements of poems and use the correct terminology to refer to these elements.

Lesson Outcomes

By the end of this lesson, you should be able to:

- identify structural elements of poems
- use the correct terminology to refer to these elements

Curriculum Links

LO 2: Reading and Viewing

- explore and explain key features of texts and how they contribute to meaning

poetry

- recognise that verse and stanza forms, rhyme, rhythm and punctuation affect meaning (linked to task)

Lesson notes

Stanzas are the small sections of each poem which are separated from each other by a horizontal space on the page.

External rhyme refers to similar sounds which are repeated at the end of lines which are close to each other.

"It wasn't us that made
him fall,
No you can't blame us at
all."

In these lines from Bob Dylan's song "Who killed Davey Moore?" the words fall and all rhyme with each other. This helps to create rhythm in the poem.

Internal rhyme occurs when similar sounding words occur within a line.

"i thank you God for most this amazing."
"and a true blue dream of sky"

In this extract from the poem "i thank You God for most this amazing" by e.e. cummings the words "true" and "blue" rhyme.

A **rhyming couplet** is when two lines next to each other have end words which rhyme with each other.

In this nursery rhyme, the rhyming couplet helps to create rhythm.

"Humpty Dumpty sat on a wall
Humpty Dumpty had a great fall."

Closed form poetry is written in a strict structure of rhyme and rhythm.

This is a sonnet written by William Shakespeare. It follows a very formal, set rhyme scheme.

When, in disgrace[5] with fortune and men's eyes,
I all alone beweep my outcast state,
And trouble deaf heaven with my bootless[7] cries,
And look upon myself, and curse my fate,
Wishing me like to one more rich in hope,
Featured[8] like him, like him with friends possessed,
Desiring this man's art[9] and that man's scope,[6]
With what I most enjoy contented least;
Yet in these thoughts myself almost despising,
Haply I think on thee – and then my state,
like to the lark at break of day arising
From sullen earth sings hyms at heaven's gate;
For thy sweet love rememb'red such wealth brings
That then I scorn to change my state with kings.

Octave 8 lines
Sestet 6 lines
Couplet 2 lines

Open form poetry is experimental and has no set structures.

when the world is puddle-wonderful

the queer
old balloonman whistles
far and wee

and bettyandisbel come dancing

from hop-scotch and jump-rope and...

This is an example of free verse or open form poetry. Poetry like this gives poets the opportunity to experiment and break through the boundaries of closed form poetry.

TASK

1. Select one of the poems which you have read in class and decide whether it is a traditional or free verse poem.
2. List the features that make it a traditional or free verse.

Getting into Poetry

LESSON 3

Types of poems

In this lesson we learn about different poetic forms including the features of ballads, odes, elegies and haiku.

Lesson Outcomes

By the end of this lesson, you should be able to:

- identify various features of different types of poems

Curriculum Links

LO 2: Reading and viewing
poetry

- recognise how word choices, imagery and sound devices affect mood, meaning and theme
- recognise that verse and stanza forms, rhyme, rhythm and punctuation affect meaning (linked to task)

Lesson notes

Categories of Poetry:

Epic poetry
An epic poem is a very long narrative poem that can extend over hundreds of lines. An example of a great epic poem is "Paradise Lost" by John Milton.

Dramatic poetry
This takes the form of poetic monologues or dialogues performed by a character or characters that the poet assumes. An example of dramatic poetry is "Ulysses" by Tennyson.

Lyric poetry
A lyric originally referred to a song performed in ancient Greece to the accompaniment of a small harp-like instrument called a lyre. Now the term is used to refer to any fairly short poem in the voice of a single speaker, although the speaker may sometimes quote others. Most of the poetry that you will encounter will be lyric poetry.

Types of Lyric Poems

A **ballad** tells a story and is usually written in four-line stanzas. Ballads frequently have a chorus or refrain which is repeated throughout the poem. They can be set to music. They are usually about love (unhappy or unfulfilled) or untimely death.

Here is an extract from a traditional ballad:

Odes are lyric poems which have a majestic tone. They are intended as hymns of praise, focusing on a single person, object or idea.

Here is an extract from the ode "To Autumn" written by John Keats.

> Season of mists and mellow fruitfulness,
> Close bosom-friend of the maturing sun.

An **elegy** is a lyric poem which is identified by its subject matter. An elegy is an expression of grief for the loss of a loved object or place, or the death of a beloved person and praise for his/her special attributes.

Here is an extract from "Elegy Written in a Country Churchyard" by Thomas Grey.

"The plowman homeward plods his way, and leaves the world to darkness and to me."

A haiku is a three-lined poem, the first line of which has five syllables, the second line has seven syllables and the third line has five syllables. The haiku focuses on images, usually connected to nature.

Here is a modern haiku poem written by an anonymous poet.

face - less - just - num - bered (5)
lone - pix - el - in -the - bit - map (7)
l - a - no - ny - mous (5)

TASK

Write a haiku of your own. Remember that the first and third lines should have five syllables, while line two has seven syllables. Your haiku should deal with something which you have observed and should be focused on nature.

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English Lesson Notes

Getting into Poetry

LESSON 4

Italian and Elizabethan Sonnets

In this lesson we learn about the structure of sonnets and how this structure helps to convey meaning.

Lesson Outcomes

By the end of this lesson, you should be able to:

- identify and comment on the form of an Italian and an Elizabethan sonnet

Curriculum Links

LO 2: Reading and viewing

- explore and explain key features of texts and how they contribute to meaning

poetry:

- recognise that verse and stanza forms, rhyme, rhythm and punctuation affect meaning

Lesson notes

1564 - 1616

What is a sonnet?
A sonnet is a poem that always follows a set structure of fourteen lines. It usually deals with one topic but frequently presents different ideas on that topic. Sonnets reached the peak of their popularity in Italy during the Renaissance era – from about 1450 to about 1670. William Shakespeare also wrote some of the most famous sonnets in the English language.

Many sonnets are based on the following topics:

- love – especially an exploration of the different types of love
- nature – with special emphasis on man versus nature
- man's role in the world – for example, fate and predestination, advancing age and death

Italian or Petrarchan Sonnets

- The sonnet was given its classical form by the Italian poet, Petrarch.
- Typically, the Italian sonnet was fourteen lines in length and followed a strict structure.
- Italian sonnets are divided into two sections, dealing with different aspects of the same topic. The sections are known as the octave (which is eight lines long) and the sestet (which is six lines long).
- An Italian sonnet usually poses a problem in the octave. Sometimes it presents some kind of argument. The sestet should supply an answer to the problem or a solution or resolution to the argument.
- Italian sonnets are interesting because they keep the reader guessing and the ideas proposed in them are thought-provoking.
- Petrarch himself confined his poems to one major theme – the love of a man for a woman who fails to return his love. This would be the problem posed in the octave, and then he would propose some sort of solution in the sestet.

Shakespearian or Elizabethan Sonnets

- Elizabethan sonnets were so named because Queen Elizabeth I was on the throne of England at the time when Shakespeare wrote most of his sonnets. You can use the terms Shakespearean or Elizabethan interchangeably.

> • A **quatrain** is a verse of four lines.
> • A **couplet** is two lines of equal length.

- A Shakespearian or Elizabethan sonnet consists of three quatrains and a rhyming couplet. Each quatrain deals with a different aspect of the subject and the rhyming couplet usually indicates Shakespeare's attitude to the topic.
- Shakespeare had a great understanding of human nature and many of his poems deal with some aspect of love and the effects of time on physical beauty.

Tip!

The easiest way to differentiate between an Elizabethan and an Italian sonnet is to look for the rhyming couplet at the end. The Italian sonnet definitely doesn't have one!

TASK

Use an anthology to find an example of a Shakespearian or Elizabethan sonnet and an Italian or Petrarchan Sonnet.

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English Lesson Notes

Getting into Poetry

LESSON 2

Rhyme Schemes

A glance at a poem can be fun, but if we want to delve into the poet's intentions, we need to look carefully at how the poet has used diction, structure and rhyme to convey meaning. This lesson explores how the rhyme scheme helps to convey meaning.

Lesson Outcomes

By the end of this lesson, you should be able to:

- identify and notate the rhyme scheme of a poem

Curriculum Links

LO 2: Reading and Viewing

- explore and explain key features of texts and how they contribute to meaning

poetry:

- recognise that verse and stanza forms, rhyme, rhythm and punctuation affect meaning

Lesson notes

What is the difference between traditional poetry and free verse?
In most traditional, rhyming poetry, all stanzas have a predictable or regular form. In free verse, any group of lines that appear to stand together may be considered to be a stanza.

An example of traditional poetry:
Here is the first stanza of the poem "Do Not go Gentle into That Good Night" by Dylan Thomas.

DO NOT GO GENTLE INTO THAT GOOD NIGHT

Do not go gentle into that good night,
Old age should burn and rave at close of day;

Rage, rage against the dying of the light.
Though wise men at their end know dark is right,
Because their words had forked no lightning they
Do not go gentle into that good night.

Good men, the last wave by, crying how bright
Their frail deeds might have danced in a green bay,
Rage, rage against the dying of the light.

- The poem follows a consistent structure.
- The first and third lines of each of the first five stanzas rhyme with external rhyme.
- The rhythm of the lines is also consistent.
- Dylan Thomas had a strong message to convey and the traditional form of the poem assists in communicating that message. By repeating the line "Do not go gentle into that good night" through out the poem, Thomas makes it clear that he didn't want his father to ease into death, but instead wanted him to fight it. The strong recurring rhyme also helps to emphasise his message.

An example of free verse poetry:
Here is the first stanza of a poem entitled "Snake" by D. H. Lawrence.

"A snake came to my water trough
On a hot, hot day, and I
in pyjamas for the heat,
To drink there."

- The lines are of irregular length and it sounds as though the poet is chatting casually to the reader.
- There is no rhyme and the rhythm is irregular.
- This poetic form allows Lawrence to share his experience in a relaxed, informal way.

Enjambment
Enjambment is the practice of running a phrase or sentence over the end of one line into the next without a punctuated pause. Enjambment is used where there is no punctuation at the end of a line of poetry.

The run-on effect created by enjambment allows the poet's idea to continue without pause and is usually used to build up to a climax or to imitate normal conversation.

Challenge: Can you find the enjambment in the extract from the poem "Snake"? What effect does the enjambment have in the poem?

TASK

1. Practise identifying rhyme schemes using a poem that you have discussed in class.

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Motion in One Dimension

Displacement and Distance

From the start of our lives we are on the move. Motion forms part of our everyday experience so it is important that we are able to analyse and describe it scientifically. When something moves it changes its position. We begin this series of lessons on motion by finding out how to describe the position and change in position of moving objects.

Lesson Outcomes

By the end of this lesson, you should be able to:

- describe the motion of objects (in words)
- distinguish distance from displacement

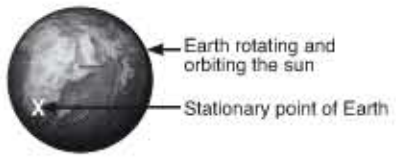
Curriculum Links

LO 2: Constructing and Applying Scientific Knowledge
AS 1: Recall and state prescribed concepts
AS 2: Explain relationships
AS 3: Apply scientific knowledge (linked to task)

Lesson Notes

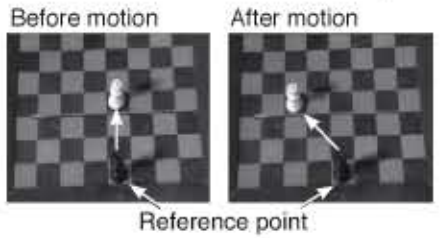
The key to analysing motion is learning how to describe position and change in position of objects. Consider something that is standing still – it is stationary. This means that it is not moving.

Is it really true that a stationary object on earth is not moving? Relative to a stationary observer on earth, the object stays in the same position – it is stationary. But if the observer were in a satellite positioned out in Space, (s)he would see the earth and everything that is on it, spinning about the earth's axis – the object would not be stationary. It all depends on the frame of reference of the observer. All stationary things on earth move with the earth so they maintain their fixed positions relative to a stationary observer.

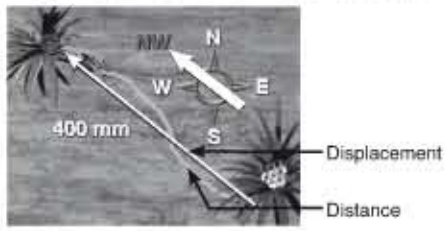


In this series of lesson on motion, we assume that the observer is on earth and is standing still (stationary).

Position is specified by giving details of how far away the object is from the observer and in what direction the observer must look to locate the object.



A change in position is called a displacement. Displacement is a vector quantity because both magnitude and direction need to be specified.



When we measure how far something has travelled, we are measuring the distance travelled. Distance is a scalar quantity because it has magnitude but no direction. Distance tells us the length of the path taken to get from starting point to ending point.

TASK

The ball on a spring moves 300 mm from right to left, and back again to its starting position. At the end of one complete "to and fro" motion:

a. What is its displacement?
b. What distance has it moved through?

Motion in One Dimension

Constant Velocity

When the velocity of a moving body does not change, we say that it travels at a constant or uniform velocity. This lesson investigates the motion of objects at constant velocity. The position of a trolley running along a straight track is recorded for each second that it is in motion, and the results are analysed.

Lesson Outcomes

By the end of this lesson, you should be able to:

- distinguish between average and instantaneous velocity
- draw a position-time graph for a body in motion
- sketch the shape of a velocity-time graph from a position-time graph

Curriculum Links

LO 1: Scientific Inquiry and Problem-solving Skills
AS 1: Conduct an investigation
AS 2: Interpret data (linked to task)
AS 4: Communicate scientific information (linked to task)
LO 2: Constructing and Applying Scientific Knowledge
AS 1: Recall and state prescribed concepts
AS 2: Explain relationships
AS 3: Apply scientific knowledge

Lesson Notes

When an object moves at constant velocity it covers an equal displacement in equal time intervals. In this example, Dineo changed her position by 0,25 m in each second.

The graph of position against time is a straight line, with a constant gradient (or slope). This type of graph tells us that the object moved with constant velocity.

$$\text{velocity} = \frac{\text{change in position}}{\text{time}}$$

= gradient of position-time graph

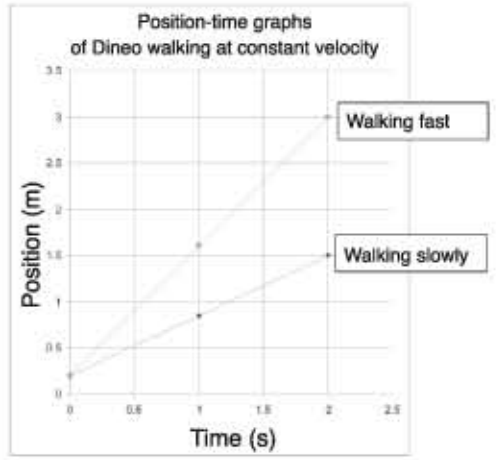
We can use the position-time graph to draw a velocity-time graph by calculating the velocity of the learner for each second that she is in motion. When an object moves at constant velocity its velocity-time graph is a straight line parallel to the time axis. The instantaneous velocity is the velocity of a moving object at a particular instant. When a body moves at constant velocity its average velocity is equal to its instantaneous velocity.

The object moving at higher velocity produces a position-time graph with a steeper gradient (slope).

TASK

Dineo walks away from the observer, first slowly, and then at greater velocity.

Her position-time graphs show this motion.



On the same set of axes, sketch the velocity-time graphs for each of these position-time graphs.

Label your graphs clearly to show which line represents Dineo walking slowly and which one shows her walking faster.

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STUDY MATE Grades 8–11

Department of Education

Physical Sciences Grade 10 Lesson Notes

Motion in One Dimension

LESSON 4

Acceleration – Increasing Velocity

Some sports cars are designed to move from 0 to 100 km.h^{-1} in less than 7 s. That is an amazing acceleration. But what do we mean by the term "acceleration"? This lesson deals with objects, which move with increasing velocity. It teaches you how to calculate the rate at which velocity changes, that is, its acceleration.

Lesson Outcomes

By the end of this lesson, you should be able to:

- define acceleration
- calculate acceleration for objects that are speeding up
- distinguish between uniform velocity and motion at uniform acceleration

Curriculum Links

LO 2: Constructing and Applying Scientific Knowledge
AS 1: Recall and state prescribed concepts
AS 2: Explain relationships
AS 3: Apply scientific knowledge (linked to task)

Lesson Notes

Something that does not change is said to be "uniform". Uniform velocity is the same as constant velocity – it is velocity that remains the same and does not change. A body moving with uniform velocity changes its position by the same amount in equal time intervals.

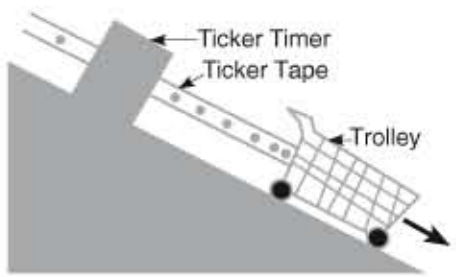
When a toy train travels at a uniform or constant speed around a circular track, its direction changes all the time. Therefore, although the train moves at a uniform speed, its velocity is not uniform because its direction is continually changing.

When a body moves with **changing velocity**, we say it is **accelerating**. Acceleration is defined as the rate of change of velocity.

$$\text{acceleration} = \frac{\text{change in velocity}}{\text{time}}$$

Acceleration is measured in the S I units of m.s^{-2}. It is a vector quantity because we must state in which direction it takes place as well as its magnitude.

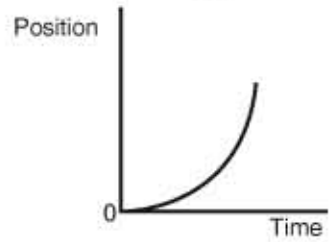
When the rate of change of velocity with time is uniform, we say that the acceleration is uniform.



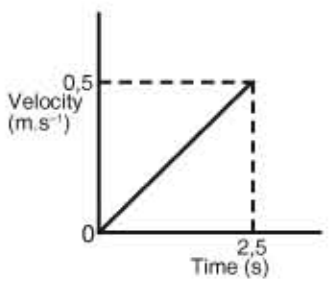
If this trolley is viewed from above, one can see that it is moving in only one dimension, i.e. in a straight line.

A trolley accelerates when it runs downhill. Its position-time graph shows that the trolley covers increasing amounts of distance in each time interval, and its velocity-time graph increases by the same amounts in equal time intervals. **These two graphs are typical of a body moving with uniform acceleration.**

1. Position - time graph



2. Velocity - time graph



TASK

Use the velocity-time graph for the motion of the trolley running downhill to answer the following questions.

a. Calculate the acceleration of the trolley.
b. Sketch the acceleration-time graph.

Physical Sciences Grade 10 Lesson Notes

Motion in One Dimension

LESSON 2

Speed vs. Velocity

Describing motion involves finding out how far and how fast an object moves. We constantly strive to achieve higher speeds – on the athletics track, in swimming and in motor racing. Even animals need to run fast to survive in the wild. This lesson compares the quantities of speed and velocity.

Lesson Outcomes

By the end of this lesson, you should be able to:

- define velocity and speed
- calculate the average velocity and average speed for objects in motion

Curriculum Links

LO 1: Scientific Inquiry and Problem-solving Skills
AS 2: Interpret data
AS 3: Solve problems (linked to task)
LO 2: Constructing and Applying Scientific Knowledge
AS 1: Recall and state prescribed concepts

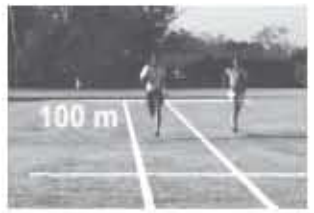
Lesson Notes

Velocity

The average velocity of a moving object is described by a relationship between its change in position (displacement) and time:

$$\text{average velocity} = \frac{\text{change in position}}{\text{time}}$$

Problem: An athlete runs 100 m in 11,41 s. What is his average velocity?



$$\text{average velocity} = \frac{\text{change in position}}{\text{time}}$$

$$= \frac{100\text{ m}}{11{,}41\text{ s}}$$

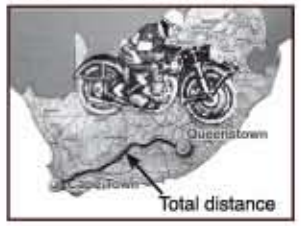
$$= 8{,}76\text{ m.s}^{-1}\text{ forwards}$$

Remember:

1. Velocity is a vector quantity because it requires both magnitude and direction to be specified.
2. The System Internationale (S I) units of velocity are metres per second (m.s^{-1}).

Speed

The average speed of a moving object is the total distance covered divided by the time taken.



$$\text{average speed} = \frac{\text{total distance}}{\text{time}}$$

Remember:

1. Speed is a scalar quantity. It only has magnitude.
2. The System Internationale (S I) units of speed are metres per second (m.s^{-1}).

TASK

A truck and a car race against each other down a straight track of 100 m in length. The truck takes 4 s to complete the race. The car's average velocity is 20 m.s^{-1} down the track.

a. Who will win the race?
b. And by how many seconds will it win?

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Algebraic Fractions

Lesson 1

Revision of Factorisation

In this lesson we revise what a factor is and what it means to factorise a number. Then we apply the concept of factorisation to algebraic expressions.

Lesson Outcomes

By the end of this lesson, you should be able to:
- factorise algebraic expressions.

Curriculum Links

LO2: Functions and Algebra
10.2.4 Manipulate algebraic expressions by:
(c) factorising by grouping in pairs
(d) simplifying algebraic fractions with monomial denominators.

Lesson notes

- A **factor** is a number that divides exactly into another number. The factors of 12 are all the numbers that divide into 12 with no remainder. So the factors of 12 are 1; 2; 3; 4; 6 and 12.
- To **factorise** a number means to write the number as a product.

  Factorise 56:
  - Think of numbers that multiply to give 56.
  - One solution is 7×8.

  Factorise a^2:
  - Think of numbers that multiply to give a^2.
  - The solution is $a \times a$.

- Factorise the algebraic expression $a^2 + ab$:
  - First factorise each separate term:

    $a \times a + a \times b$.
  - Identify the factor that is common to both terms: in this case it is a.
  - Then find the terms that are multiplied by the common factor to give the original expression:

    $a + b$.
  - Write these terms in brackets and multiply the expression in brackets by the common factor: The factorised expression is the product:

    $a(a + b)$.

- Note that the expression $a^2 + ab$ has **two terms.** The two terms are separated by a plus sign. This means that when you factorise the expression there must be **two terms** in the bracket as well.

Task

Factorise the following expressions:
1. $x^2 - 2x$
2. $p + 2pa$

Lesson 1: Revision of Factorisation

1. $x^2 - 2x$
   $= x(x - 2)$
2. $p + 2pa$
   $= p(1 + 2a)$

Algebraic Fractions

Lesson 3

Simplification of Fractions

In this lesson we discover how to find a common factor consisting of two terms, so that we can use this as another method to simplify algebraic fractions.

Lesson Outcomes

By the end of this lesson, you should be able to:
- simplify an algebraic fraction by finding a common factor that has two terms.

Curriculum Links

LO2: Functions and Algebra
10.2.4 Manipulate algebraic expressions by:
(c) factorising by grouping in pairs
(d) simplifying algebraic fractions with monomial denominators.

Lesson notes

- How many terms are in the expression $2(a - b) + c(a - b)$? This expression has two terms, separated by a plus sign:

  $\underbrace{2(a-b)}_{\text{ONE term}} + \underbrace{c(a-b)}_{\text{ONE term}}$
- Let's factorise this expression. There is a common factor $(a - b)$ in both terms. If we take out the common factor we have $(a - b)(2 + c)$.
- Now, let's use what we have learnt to simplify the fraction:

  $$\frac{2(a-b) + c(a-b)}{c+2}$$

  First take out the common factor in the numerator, $(a - b)$. Divide the common factor in the numerator and denominator to cancel them.
  Notice that $2 + c$ is the same as $c + 2$. These terms cancel to give 1.

  $$\frac{(a-b)(2+c)}{(c+2)}$$
  $$= \frac{(2+c)}{(c+2)} \times \frac{(a-b)}{1}$$
  $$= a - b$$

- Remember that the simplified form of the fraction has the same value as the original fraction.

Task

Simplify the following fractions:

1. $\frac{3-p}{3p}$
2. $\frac{z+rz}{r+1}$

Lesson 3: Simplification of Fractions

1. $\frac{3-p}{3p}$

   Cannot be simplified further.

2. $\frac{z+rz}{r+1}$
   $= \frac{z(1+r)}{r+1}$
   $= z$

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STUDY MATE Grades 8–11
Department of Education

Mathematics Grade 10 — Lesson Notes

Algebraic Fractions

Lesson 4

Simplification of More Advanced Fractions

In this lesson we revise how to factorise and simplify an expression that is a difference of two squares. Then we use this to simplify more complicated algebraic fractions.

Lesson Outcomes

By the end of this lesson, you should be able to:
- simplify expressions that include the difference of squares.

Curriculum Links

LO2: Functions and Algebra
10.2.4 Manipulate algebraic expressions by:
(c) factorising by grouping in pairs
(d) simplifying algebraic fractions with monomial denominators.

Lesson notes

- Let's investigate what is meant by a **difference** of two squares. Examples of perfect squares are: a^2, or a times a, and b^2, or b times b. **Difference** means that terms are subtracted. In the expression $a^2 - b^2$, the minus sign shows a difference between the two terms.
- Look out for expressions that are a difference of two squares, because there is a special way of factorising them.
- Let's work through these steps to find a method to factorise the expression $a^2 - b^2$:

  First, find the square root of each term:

  $\sqrt{a^2} = a$ and $\sqrt{b^2} = b$.

  Now, multiply the **sum** of the square roots by the **difference** of the square roots:

  $(a + b)(a - b)$.

  Use multiplication to check that the factors are correct and note that the middle terms added together give a value of 0.

  $(a + b)(a - b) = a^2 + ab - ab - b^2 = a^2 - b^2$.
- Now, let's factorise the expression $16a^4 - c^4$. It is the difference of two squares. Find the square roots of the separate terms Be careful with the exponents.

  $\sqrt{16a^4} = 4a^2$ and $\sqrt{c^4} = c^2$.

  So we factorise the expression as

  $(4a^2 - c^2)(4a^2 + c^2)$.

  But factors must always be written in the simplest form. We can still factorise $4a^2 - c^2$, which is also a difference of two squares. The final answer is $(2a - c)(2a + c)(4a^2 + c^2)$.
- Remember that $4a^2 + c^2$ is the **sum** of two squares and cannot be factorised!
- Now let's look at how the difference of two squares is used in an algebraic fraction. We first factorise the numerator. Then divide by the factor that is common to the numerator and denominator.

$$\frac{a^2 - 9}{a + 3} = \frac{(a-3)(a+3)}{(a+3)} = (a - 3)$$

Task

Simplify: $\frac{16 - 4k^2}{4k + 8}$

Lesson 4: Simplification of More Advanced fractions

$$\frac{16 - 4k^2}{4k + 8} = \frac{4(4 - k^2)}{4(k + 2)} = \frac{(2 - k)(2 + k)}{4(k + 2)} = 2 - k$$

or

$$= \frac{(4 - 2k)(4 + 2k)}{4k + 8} = \frac{2(2 - k)2(2 + k)}{4(k + 2)} = \frac{4(2 - k)(2 + k)}{4(k + 2)} = 2 - k$$

Mathematics Grade 10 — Lesson Notes

Algebraic Fractions

Lesson 2

Simplification of Fractions

In this lesson we learn how to simplify algebraic fractions by dividing (cancelling) the common factors in the numerator and the denominator.

Lesson Outcomes

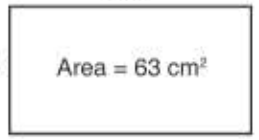
By the end of this lesson, you should be able to:
- factorise using a common factor.

Curriculum Links

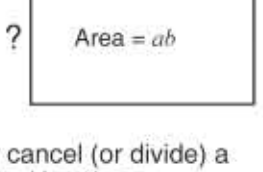
LO2: Functions and Algebra
10.2.4 Manipulate algebraic expressions by:
(c) factorising by grouping in pairs
(d) simplifying algebraic fractions with monomial denominators.

Lesson notes

- We use the area of a rectangle to explore factorising and simplifying fractions. The area of a rectangle is 63 cm². One side is 9 cm long. Can you determine the length of the other side? Remember that the area of a rectangle is the product of two sides: Area = length × breadth. We know that 7 × 9 = 63. So the other side must be 7 cm.



- Using the same method to find the length of the unknown side in a rectangle with area ab, we divide the area by the length of the other side. So we have $\frac{ab}{a} = b$. The a is a common factor of the numerator and the denominator. So we cancel the common factors and find that the length of the unknown side is b.



- Remember, we can only cancel (or divide) a fraction if we have factors. Here is an example of a fraction that cannot be simplified: $\frac{2 + a}{2a}$

  In this example, the numerator consists of two **terms**, 2 and a. It does not contain **factors**. We can only cancel whole **factors** with each other. So this fraction cannot be simplified.
- Let's try to simplify this example:

  $\frac{a + ab}{a}$

  First take out a common factor of a from the terms in the numerator.
  Then divide by (or cancel) the factors.

$$\frac{a(1+b)}{a} = \frac{a}{a} \times \frac{1+b}{1} = 1 + b$$

Task

Simplify:

$$\frac{18x^2y}{27xy^3}$$

Lesson 2: Simplification of Fractions

$$\frac{18x^2y}{27xy^3} = \frac{2x}{3y^2}$$

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ENGLISH - FAL GRADE 11

Lesson 1

Listening and speaking
Debates

Learning Outcomes and Assessment Standards

Learning Outcome 1:
In this lesson, we are focusing on Learning Outcome 1, which deals with listening and speaking.

Assessment Standard:
You must be able to:

- Demonstrate knowledge of different forms of oral communication for social purposes; and
- Participate in panel discussions, debates and formal meetings, following correct procedures.

We are focusing on debating

What is a debate?

A **formal debate** is an organised or public meeting for discussion. In school, a debate is like a game in which two opposing teams make speeches to support their arguments and disagree with those of the other team.

Learning how to speak formally, in public, with an audience, will help you for the rest of your life. Also, listening and speaking are central to learning in all subjects. Through effective listening and speaking strategies, you will learn how to collect and combine information, construct knowledge, solve problems and express ideas and opinions. But learning how to speak well will give you many valuable skills needed for your life after school as well. This LO relates to the LO of writing. If you learn to debate well, you have to write your speech, and this kind of writing is persuasive, argumentative, discursive writing. You will be asked to write a number of essays during your Grade 11 year, and this lesson will help you with some of those kinds of writing because you are practising the skills you need in that kind of writing.

Content and structure of a speech

The task of the proposition is to propose the topic with constructive arguments and the use of supporting material. This team agrees with the topic.

The job of the opposing team is to oppose the resolution. They disagree with the topic.

Planning your speech

1. Choose your topic.
2. Brainstorm your topic. Write down all the ideas you have.
3. Check that you have kept your focus.
4. Check that your ideas are logical and coherent.
5. Make sure you have enough substantiation for your ideas (details, facts, statistics).

If you are going to present an argument, you must have knowledge, information, facts and details. Make sure you do thorough research.

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MATHEMATICS GRADE 11

Lesson 1

Algebra
Multiply, divide, add and subtract algebraic fractions

Learning Outcomes and Assessment Standards

Learning Outcome 2: Algebra
Assessment Standard
Simplifying algebraic expressions (LO2 AS 11.2.4 (b))

Lesson Overview	A. Simplification of Fractions
In this lesson you will :	Rule:
➢ Revise Grade 10 Algebra.	➢ Factorise the denominator
➢ Multiply and divide algebraic fractions.	➢ Factorise the numerator
➢ Add and subtract algebraic fractions.	➢ Cancel the factors

Examples

Simplify the following:

1. $\frac{x^2-x-6}{x^2-9}$
$= \frac{(x-3)(x+2)}{(x-3)(x+3)}$ (Factorise numerator and denominator)
$= \frac{(x-3)(x+2)}{(x-3)(x+3)}$ (Cancel)
$= \frac{x+2}{x-3}$

2. $\frac{2(x-2)(x+1)+3(x-2)}{6x^2+13x-5}$
$= \frac{(x-2)[2(x+1)+3]}{(3x-1)(2x+5)}$ (Take out the common factor$(x-2)$)
$= \frac{(x-2)(2x+5)}{(3x-1)(2x+5)}$ (Expand and simplify in the square brackets)
$= \frac{(x-2)(2x+5)}{(3x-1)(2x+5)}$ (Cancel)
$= \frac{x-2}{3x-1}$

3. $\frac{2x^2+2ax-3xy-3ay}{2x^2+3xy-9y^2}$
$= \frac{2x(x+a)-3y(x+a)}{(2x-3y)(x+3y)}$ (Factorise numerator by grouping in pairs)
$= \frac{(x+a)(2x-3y)}{(2x-3y)(x+3y)}$ (Take out the common factor $(x+a)$ and cancel)
$= \frac{x+a}{x+3y}$

4. $\frac{2x^2-x-3}{x^2+x} \times \frac{3x^2-x-4}{6x^2-17x+12} \div \frac{2x+2}{x^2}$
$= \frac{(2x-3)(x+1)}{x(x+1)} \times \frac{(x+1)(3x-4)}{(2x-3)(3x-4)} \times \frac{x^2}{2(x+1)}$ (Factorise)
$= \frac{(2x-3)(x+1)}{x(x+1)} \times \frac{(x+1)(3x-4)}{(2x-3)(3x-4)} \times \frac{x^2}{2(x+1)}$ (Cancel)
$= x$

Change of sign to simplify fractions	Very important results
• $\frac{-x}{y} = \frac{-x}{y} = \frac{x}{-y}$	• $\frac{x-y}{y-x} = -1$
• $-\frac{a-b}{x-y} = \frac{-a+b}{x-y} = \frac{a-b}{-x+y}$ So	• $\frac{x+y}{y+x} = 1$
• $\frac{p-q}{q-p} = \frac{-(q-p)}{(q-p)} = -1$	• $(x-y)^2 = (y-x)^2$
	• $(a-b)(c-d) = (b-a)(d-c)$
	• $\frac{p-q}{x-y} = \frac{q-p}{y-x}$

5. $\frac{4-9x^2}{6x^2-x-2}$

$= \frac{(2-3x)(2+3x)}{(3x-2)(2x+1)}$

$= \frac{(-1)\cancel{(2-3x)}(2+3x)}{\cancel{(3x-2)}(2x+1)}$ $\left[\text{Since } \frac{(2-3x)}{(3x-2)} = \frac{-\cancel{(3x-2)}}{\cancel{(3x-2)}} = -1\right]$

$= \frac{(-1)(2+3x)}{(2x+1)}$

$= \frac{-2-3x}{2x+1}$

B. Addition and Subtraction of Fractions

Rule:

- Find the LCM of the denominators (LCD).
- When we have equivalent fractions, we can add the numerators.

Examples

Simplify the following to a single fraction:

1. $\frac{3}{a} + \frac{a}{a-3}$

$= \frac{3(a-3)+a^2}{a(a-3)}$ (LCD = $a(a-3)$)

$= \frac{3a-9+a^2}{a(a-3)}$

$= \frac{a^2+3a-9}{a(a-3)}$

2. $1 + \frac{2}{x+1} - \frac{3}{3-x}$

$= \frac{1}{1} + \frac{2}{x+1} + \frac{3}{x-3}$ (Good idea)

$= \frac{(x+1)(x-3)+2(x-3)+3(x+1)}{(x+1)(x-3)}$

$= \frac{x^2-2x-3+2x-6+3x+3}{(x+1)(x-3)}$

$= \frac{x^2+3x-6}{(x+1)(x-3)}$

Sometimes we need to factorise denominators first before finding the LCD.

The next example deals with this.

3. $\frac{1}{a^2-1} + \frac{1}{(1-a)^2} - \frac{1}{a+1} = \frac{1}{(a+1)(a-1)} + \frac{1}{(a-1)^2} - \frac{1}{(a+1)}$

$= \frac{(a-1)+(a+1)-(a-1)^2}{(a+1)(a-1)^2}$ LCD = $(a+1)(a-1)^2$

$= \frac{2a-(a^2-2a+1)}{(a+1)(a-1)^2}$

$= \frac{2a-a^2+2a-1}{(a+1)(a-1)^2}$

$= \frac{-a^2+4a-1}{(a+1)(a-1)^2}$

DO NOT CONFUSE ADDITION OF FRACTIONS WITH THE SOLUTION OF AN EQUATION.

So

Simplify: $\frac{3}{x-1} + \frac{2}{x} - \frac{4}{3x}$

$= \frac{9x+6(x-1)-4(x-1)}{3x(x-1)}$

$= \frac{9x+6x-6-4x+4}{3x(x-1)}$

$= \frac{11x-2}{3x(x-1)}$

But

Solve for x: (Multiply each term by the LCD)

$\frac{3}{x-1} + \frac{2}{x} = \frac{4}{3x}$ LCD = $3x(x-1)$

$\therefore \frac{3}{x-1} \times 3x(x-1) + \frac{2}{x} \times 3x(x-1) = \frac{4}{3x} \times 3x(x-1)$

$\therefore 9x + 6(x-1) = 4(x-1)$

$\therefore 9x + 6 - 6 = 4x - 4$

$\therefore 11x = 2$

$\therefore x = \frac{2}{11}$

Activities

Choose ONE of the following topics.

1. The death penalty should be reinstated in South Africa.
2. A good mother does not focus on her career, but on her family.

Choose to agree or disagree with the topic. Brainstorm your ideas. Organise your ideas logically.

Now, research your topic carefully. Go to the library, speak to people, look for information on the Internet, and talk to friends. Check if your first ideas can be supported with lots of facts and detail, examples, reasons, comparisons, statistics, etc.

Every point you make must be supported by a strong reason. Remember

- A strong reason has the following qualities:
  - It logically supports the opinion;
  - It is specific and states the idea clearly; and
  - It is convincing to a majority of people.

Assessment and answers

TIPS	Remember the style of your speech should be:
➢ Plan an effective introduction.	➢ Formal;
➢ Plan an effective conclusion.	➢ Simple; and
➢ Define the terms you use.	➢ Grammatically correct.

Here is an example of a checklist for assessing a debate against which you can judge the content of your speech. Ask a friend to judge how you deliver the speech:

An example of a classroom debate checklist

Criteria	✓	✗
1. Organisation and clarity: Viewpoints and responses are outlined both clearly and in an orderly way.		
2. Use of arguments: Reasons are given to support viewpoint.		
3. Use of examples and facts: Examples and facts are given to support reasons.		
4. Use of rebuttal: Arguments made by the other team are responded to and dealt with effectively.		
5. Presentation style: Tone of voice, use of gestures and level of enthusiasm are convincing to audience.		

Tips for teachers

Have a few informal debates so the learners get used to standing up and presenting their point of view formally, not interrupting, and listening to and rebutting an argument. These debates can arise quite naturally from various issues in the texts you are studying, for example, if you are reading *The No. 1 Ladies' Detective Agency*, each chapter focuses on an issue that can be debated: witchcraft, child abduction or the physical abuse of women by their partners. You can model the chairman's role for your learners. Once they have the "feel" of a debate, you can set up a formal debate with all the rules and restrictions.

PHYSICAL SCIENCE GRADE 11

Lesson 1

Mechanics

Forces and the effects of forces

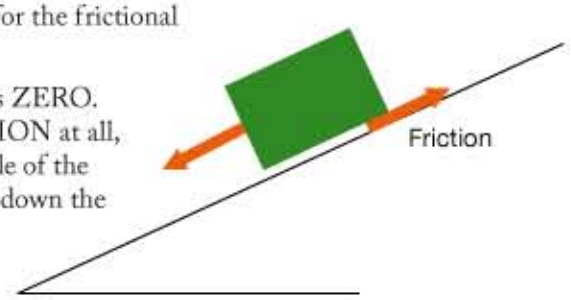
Introduction

A force can cause something to move or it can prevent something from moving. A force can make something move in a particular way (e.g. accelerate) or it might just change the shape of an object (distort it). The basic definition of a force is a "push" or a "pull".

What is the most common kind of force?

The type of force we deal with most is the contact force. As the name implies, these are forces that are exerted when bodies are in contact. The next most common force – one we cannot avoid – is the gravitational force: the force with which the earth attracts everything on or near it and the forces with which everything attracts the earth in return!

Friction is also with us all the time. Friction acts when a body is in contact with and moving on a surface or when a body would move if it were not for the frictional force.



In the diagram the resultant force in the direction of the slope is ZERO. Therefore the box will remain at rest. (If there was NO FRICTION at all, the box would slide down the slope on its own.) Now if the angle of the slope is increased, at a certain incline the box will begin to slide down the slope. This does not mean that there is no friction!

Here is a summary of Newton's First and Second Laws and some of the quantities involved e.g. inertia and momentum.

Newton's First Law of Motion

Newton's First Law of Motion is sometimes called "the Law of Inertia". Newton's First Law uses the conclusion which Galileo Galilei's drew from his famous "thought experiment" and describes the property of inertia.

Inertia

Inertia is the property of a body that makes it remain in its rest position or keep on moving with uniform velocity in a straight line UNLESS it is acted upon by a resultant force.

Discuss this important property of matter with some friends to make sure you understand it. It seems quite simple, and it IS! But it is also a very important property of matter.

> Newton's First Law of Motion
> A body will remain at rest or continue moving with uniform velocity (in a straight line) unless it is acted upon by a resultant force.

Momentum

In order to describe the motion of a body when acted on by a force, Isaac Newton defined a quantity that he called "quantitas motus", Latin for "quantity of motion". He did so because he wanted a quantity that combined the amount of matter in a body (its mass) with its motion (its velocity). We call this quantity: momentum.

> The momentum (p) of a body is given by the product of its mass m and its velocity v.
> $p = m \times v$ [the units of momentum are kg.m.s-1]

LIFE SCIENCES GRADE 11

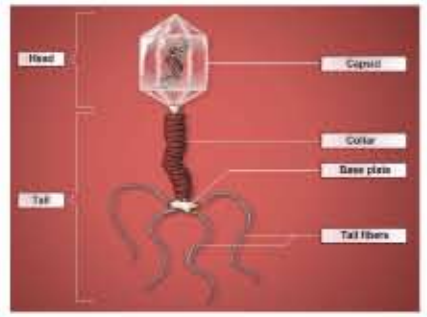
Lesson 1

Tissues, Cells and Molecular Study
Unit 1: Micro-organisms - Viruses

A virus is very small and can only be seen through an electron microscope. Viruses are acellular because they do not have a nucleus, cytoplasm or organelles. They have no metabolism and do not grow or respire. Under unfavourable conditions, a virus will crystallise. Viruses are classified as parasites because they can only reproduce inside a host. Viruses cause disease and are called antigens. Viral infections are difficult to control because they mutate (change their DNA structure).

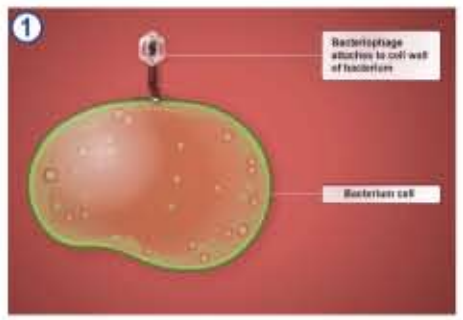
Structure:

Viruses have many shapes. They have an outside protein capsule called a capsid, surrounding a central core. The central core contains either DNA or RNA. This makes up the head. It has a short collar region which attaches the head to the tail region. The tail has a base plate that contains tail fibres.



Replication of Viruses:

A virus needs a host cell to reproduce. The virus penetrates the host cell and introduces its own RNA or DNA into the cell. It used the host cell's DNA and proteins to produce new virus structures. Each new virus develops a capsid. The host cell membrane splits, releasing the viruses into the organism. This is called lysis. The release of the viruses results in the symptoms of the viral diseases.



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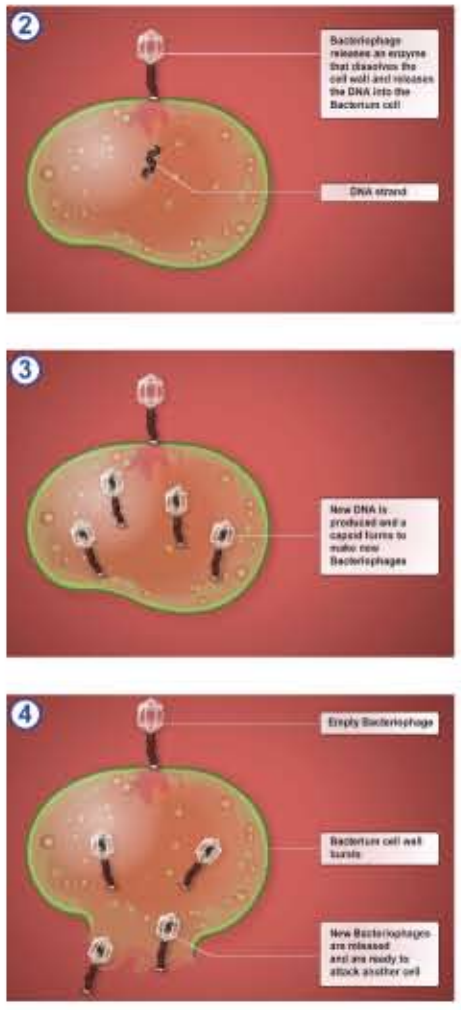
LIFE SCIENCES GRADE 11



Viral Control:

Viruses can be controlled in two ways:

Prevention:

Avoid contact with an infected organism. When coughing or sneezing, cover your mouth and nose with your hand or a tissue. Keep open cuts and wounds covered and sterile. Get vaccinated for childhood diseases.

Immunity:

Active Immunity: A virus enters the body. Our immune system detects the antigen and this produces a substance called interferon. This causes the body temperature to rise which is one of the symptoms of an infection. Interferon prevents the virus from reproducing, allowing antibodies time to destroy the virus.

Passive Immunity: A weak strain of the virus is introduced into the body. This is called immunization. Babies and small children must be inoculated by law against childhood illnesses like Measles, Mumps, Polio and Chickenpox. The body responds by producing antibodies. When the child becomes infected, the antibodies are produced again and kill the virus.

Newton's Second Law

A net force causes an object's momentum to change. Newton's Second Law of Motion is stated in terms of change of momentum. According to Newton's Second Law, the change in a body's motion or, more correctly, the change in a body's momentum, is proportional to the size of the force that causes the change.
The rate of change of momentum (i.e. the change in momentum per second) of a body is proportional to the resultant (or nett) force acting on the body.

We can show this using a series of mathematical equations that say the same thing, but in symbols:

$$F = \frac{\Delta p}{\Delta t} \quad \textit{the rate of change of momentum}$$

$$F = \frac{\Delta (mv)}{\Delta t} \quad \textit{the rate of change of momentum}$$

If the mass of the body experiencing the force remains constant (i.e. it does not change), then the change in momentum is only due to the change in the body's velocity. This is called a SPECIAL CASE and leads to a familiar equation that you can use in many calculations. But remember! The equation only applies when mass remains constant.

$$F = m \times \frac{\Delta v}{\Delta t} \quad \left(a = \frac{\Delta v}{\Delta t}\right)$$

In Grade 10 you learnt that acceleration is the "rate of change of velocity". Therefore …

$$F = m \times a$$

… which can also be written:

$$a = \frac{F}{m}$$

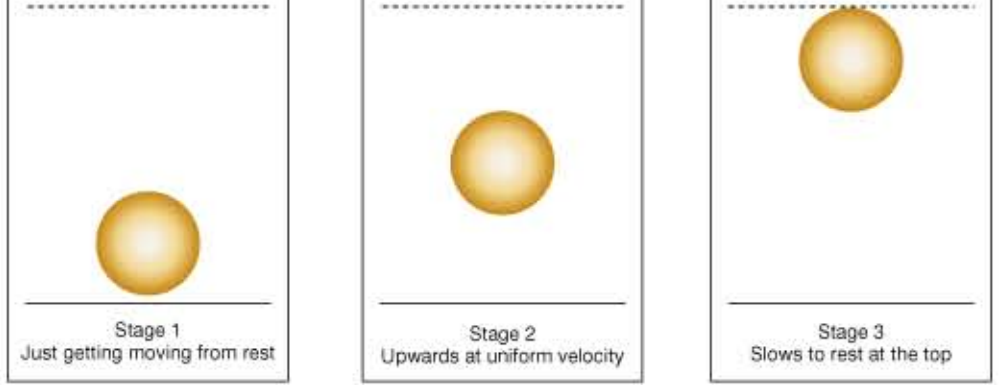
This equation gives us the version of Newton's Second Law of Motion for the special case when the mass of the accelerating body remains constant.

> Newton's Second Law of Motion
> When a resultant force acts on a body it causes the body to accelerate in the direction of the force. The magnitude of the acceleration is proportional to the magnitude of the force and inversely proportional to the mass of the body.

Identify the forces involved when a ball is lifted.

Here are three questions about the lifting of a ball. Show the forces being exerted in each of the three stages in the movement of the ball by representing the forces with a neat arrow. Make sure that larger forces are represented by larger arrows and vice versa.
Stage 1 Ball moves upwards, from rest to a certain velocity, v.
Stage 2 Ball continues to move upwards at constant (uniform) velocity, v.
Stage 3 The ball comes to rest at the top of its lift i.e. slows from v to 0 m.s-1.

1. Draw the three diagrams, one for each stage.
2. Use arrows to show what forces are acting at each stage.
3. State, with reasons, which of Newton's laws best explain the motion at each stage.
4. Complete this summary:
   the resultant force on the ball is at Stage 1 is zero / not zero
   the resultant force on the ball is at Stage 2 is zero / not zero
   the resultant force on the ball is at Stage 3 is zero / not zero



COMMON TASK FOR ASSESSMENT (CTA)
GRADE 9

ENGLISH HOME LANGUAGE

LEARNER BOOK

Suggested Time: 5 hours

150 marks

TASK 1 **Who are our South African role models?**
Activity 1.1 **Class discussion (approx 40 minutes)**
No marks
RNCS: LO 1,2,5

We are updating a book on great South Africans. Suggest names in a variety of categories. You could concept map the names on the board using the following categories:

sports
politics
community
entertainment (music, films, TV)
business
arts
literature
science and medicine
fashion
other?

Questions to think about:

(a) What is your great South African's contribution to our society?
(b) What type of role-model is he or she?
(c) How do we measure his or her worth against someone else?
(d) How did you hear about him/her?
(e) Why are some of these people controversial?

Activity 1.2 Homework task
Explanation of research task (Approx 10 – 20 mins)

- Go home and ask your friends and family (at least 10 people who are not in your class or grade)
  1. Whom do they consider to be the three greatest South Africans?
  2. Why?
- Note down their answers and bring them on one A4 page to school when you will be engaged in Task 4.
- You will be writing a report on your findings under controlled conditions (test conditions) as well as a pen portrait of approximately 10 lines of a person in your community who you think should be nominated for this book on great South Africans.
- The last part of your report must include your personal opinion on who the 3 greatest South Africans are, in addition to how or why great South Africans should or should not be honoured.
- You will need to begin your research immediately as you will need some of your findings for the next task.
- You may want to enter your research findings into a table.

TASK 2
ORAL – GROUPWORK: Create a rap (approx 120 mins)
40 marks
RNCS: LO 2,5,6

PREPARATION LESSON (12 marks)

(a) Your class will be divided into groups of 4 – 6 learners.
(b) Create a rap in your group about the great South Africans that members of your group have identified in their research and explain why you chose them in your rap.
- You must talk about 8 – 12 role-models.
- Be creative.
- Ensure that everyone knows their words for the performance.
- Everyone in your group must participate.
- You have 60 minutes in which to prepare as a group.
- You will be assessed by your teacher on your groupwork and time management skills while you are preparing.
- Your rap will be assessed using the following criteria: audibility, clarity, participation in rap, language usage, preparedness, rap form.

(c) Using the rubric below, you will rate your own group and assess everyone's contribution to the process. Each learner will be assessed individually for his/her contribution to the group and will earn a group mark for time management.

	Groupwork participation		**Time management of group**
	Individual assessment		**Group assessment**
6	Group member helps organise, include and motivate other group members	6	Group focused, have direction, plan and set to work immediately.
5	Participates fully in group discussion – contributes ideas, is co-operative.	5	Group in general focused. Some initial "hiccups" in time management
3	Participates in group but is not entirely focused on task or else assumes leadership and does not include contributions from others – autocratic leadership	3	Not much planning done in group. Group runs out of time.
2	Passenger in the group – no personal contribution – merely does as group decides/requested	2	Group dysfunctional some of the time due to lack of buy-in, leadership, organisation or planning.
1	Unacceptable – little participation or co-operation.	1	Group dysfunctional and does not complete the task nor resolve conflicts.

Our group scored _____ for our groupwork.
The members of my group gave me _____ for my participation.

PERFORMANCE LESSON (28 marks)
Each learner will be assessed according to the following criteria:
Audibility and clarity, participation, language usage, preparedness, rap form.

GET CTA Assessment of Performance of Rap 2006				
Name of learner:				
Rating code	4	3	2	1
Audibility and Clarity	Learner is clearly audible and words enunciated properly. Voice used to full effect and good audience rapport evident.	Learner is audible and clear but voice lacks expression/ drama. Audience awareness is slightly strained.	Occasional lapses in audibility or enunciation. Poor rapport with audience/eye contact	Learner is inaudible, mumbles or giggles. Little or no eye contact with audience.
Marks	7 – 8	5 – 6	3 – 4	1 – 2
Oarticipation	Learner participates fully in oral activity			Learner plays very small part in group production.
Marks	4	3	2	1
Language use	Learner language usage authentic and creative and appropriate for rap and subject	Learner uses appropriate language for rap	Occasional lapse in language usage	Register and language are not appropriate to a rap.
Marks	7 – 8	5 – 6	3 – 4	1 – 2
Prearation	Learner is well-prepared and knows words of rap.	Learner knows most of his / her words and does not rely on notes too often	Learner knows some of his / her words.	Learner is totally reliant on notes and has not prepared thoroughly.
Marks	4	3	2	1
Rap format	Rap sounds authentic and shows creative adaptation of subject to form	Rap conforms to accepted rap form (rhythm and rhyme)	Occasional lapses in rap form.	Poor approximation to rap form
Marks	4	3	2	1
Total	22 – 28	15 – 21	8 – 14	1– 7

[Total: 28 marks]

TASK 3
INDIVIDUAL TASK **Visual communication – collage (60 Mins)**
50 marks
LO 3,5
Learners will need 1 sheet of A4/A3 paper.

Instructions:
(a) Divide your paper in half. Label one half "Negative influences of role-models" and label the other half "Positive influences of role-models".
(b) Create a collage in each half using words and pictures from newspapers and magazines clearly showing at least 5 negative and 5 positive influences that role-models could have on people in society.
(c) You must ensure that pictures as well as words are used to convey the message.
(d) A good collage will use a variety of textures, colours and fonts to foreground information or characteristics. The composition of the collage is as important to the message as the pictures and words chosen.
(e) You will be assessed using the following criteria:
- Understanding of 5 negative influences
- Understanding of 5 positive influences
- Ability to use pictures and words to communicate message.

Criteria	Possible mark	Mark
Understanding of 5 negative influences of role-models	10	
Understanding of 5 positive influences of role-models	10	
Ability to use balance of pictures and words to communicate message	10	
Composition, use of texture, colour, font size and other effects	20	
	50	

TASK 4
INDIVIDUAL TASK **Controlled conditions (60 mins)**
60 marks
LO 3,4,5,6

Section A
Write a report in class of at least 200 words for JUTA publishing company for their next board meeting on your research findings from Task 1. You may bring one A4 page of research notes into the venue. This page may only have statistics and names on it – you may not bring in full sentences. You may NOT bring in a written report.
In your report you need to focus on the following:
- Which categories of people have been most identified as great South African personalities in your research?
- Can you suggest a reason for this?
- Who was the most popular person mentioned?
- Whom did you personally nominate?
- Include your opinion on how or why great South Africans could or should be honoured (aside from a book).

Task heading: Report to the board of JUTA Publishing on the identification of great South Africans.

You will be assessed using the following criteria:
- Report format
- Register
- Grammar and spelling
- Evidence of research – analysis and synthesis
- Quality of opinion

A good answer would respond to all the questions asked in this task and would show that adequate research has been done. The report would be clearly set out in the correct register and style. The report would be factual except for a small section requiring a personal, reasoned opinion.

Section B

Nominate someone in your local community that you'd like to see in the book on great South African heroes because of their contribution to society. It could even be your mother, father or other relative but you must justify your nomination. Write a ten-line nomination for their place in the new book.

You will be assessed using the following criteria:

- ability to write a short, sustained argument in a well-structured paragraph
- ability to back up opinions
- grammar and spelling

Assessment Rubric Task 4:

Section A Report

Criterion	Rating 4	3	2	1	Maximum Marks
Format	Report format – writer shows flair and authenticity	Report format is correct	Report does not conform entirely to accepted report format	Report does not conform to acceptable report format	4
Register	Register is entirely appropriate and writer uses extensive formal vocabulary	Register is appropriately formal	Occasional lapses in formal register	Register is in general inappropriate – too many colloquialisms, abbreviations and use of slang is abundant.	4
Language, spelling and grammar	Very good sentence structure, variety of sentence types. Grammar usage and spelling are excellent.	Good sentences on the whole Grammar and spelling and generally correct	Sentence structure mistakes mar the communication Numerous grammar and spelling errors are made but they do not hamper communication	Poor sentence structure – muddled and difficult to follow Large number of grammar and spelling errors which mar message.	4
Quality and use of content	Evidence of research can be clearly seen and learner shows ability to analyse and synthesise data to create coherent and logical report.	Evidence of research can be seen and learner makes some effort at analysis and synthesis of data	There is some evidence of research but learner lacks ability to analyse and synthesise data accurately or succinctly.	Little evidence of research and no effort or ability to analyse and synthesise data.	16
Ability to express an opinion	Opinion of learner shows perception, reasoning and ability to express self with aplomb.	Learner expresses opinion	Learner does not express opinion clearly and does not express reasoning behind opinion	Opinion is unsupported or sustained or no opinion expressed or very muddled and fragmented.	12
TOTAL MARKS out of 40					

Section B Nomination Proposal

Rating	4	3	2	1
Structure of argument	Learner is able to write a sustained argument in a short paragraph that is logical, coherent and strong	Learner is able to write an argument in a paragraph which is logical	Learner sets out an argument in a paragraph which is a little disjointed or which makes unsupported statements	Learner is unable to sustain argument in a written text. Argument is very disjointed and lacks coherence. Appears to be constructed from arbitrary points
Marks	7 – 8	5 – 6	3 – 4	1 - 2
Opinion and justification	Opinion of learner shows perception, reasoning and ability to express self with aplomb. Excellent substantiation	Learner expresses opinion and does back them up	Learner does not express opinion clearly and does not express reasoning behind opinion	Opinion is unsupported or sustained or no relevant opinion expressed.
Marks	7 – 8	5 – 6	3 – 4	1 – 2
Grammar and spelling	Grammar usage and spelling are excellent.	Grammar and spelling and generally correct	Numerous grammar and spelling errors are made but they do not hamper communication	Large number of grammar and spelling errors which mar message.
Marks	4	3	2	1
Awareness of context	2	1½	1	0
Total	20 – 22	14½ – 16½	9 – 11	3 – 5

Department of Education

COMMON TASK FOR ASSESSMENT (CTA)
GRADE 9

ENGLISH HOME LANGUAGE

TEACHER BOOK

Suggested Time: 5 hours

150 marks

Assessment Summary

Task 1	Whole class	Oral - discussion	Nil	SO6, SO4 *RNCS LO 1,2,5*
Task 2	Group & individual	Oral - rap	10 marks process 20 marks product	CO2, CO3 SO1, SO7 *RNCS LO 2,5,6*
Task 3	Individual	Visual- collage	20 marks	SO1, SO7, CO5 *RNCS LO 3,5*
Task 4	Individual	Written – report Controlled Conditions**	50 marks	SO1, SO7, SO5, SO4, CO5 *RNCS LO 3,4,5,6*

Note to Teachers/Parents:

1. You will need to collect old magazines and newspapers for the collage.
2. Embedded knowledge: Learners will need to know how to write a formal report and also what constitutes a rap, e.g. rhythm, rhyme, language usage etc.
3. Oral – rap – You may choose to do the Task 1 Preparation lesson followed by Task 3 and then Task 2 Production, in order to give the learners time to learn their words.
4. The rubrics could be photocopied 4 to a page and stapled to your learners' work.

TASK 1 Who are our South African role models?
Activity 1.1 Class discussion (approx 40 minutes)
No marks
RNCS: LO 1,2,5

The teacher needs to set the scene and guide learners in their discussion.

Some ideas to get you started:
Sports: Hansie Cronje, Francois Pienaar, Lucas Radebe, Natalie du Toit, Paul Adams
Politics: Nelson Mandela, Thabo Mbeki, Phumzile Mlambo Ngcuka, Hendrik Verwoerd
Community: Archbishop Tutu, Zola
Entertainment (music, films, TV): Charlize Theron, Danny Kaye,
Business: Raymond Ackerman, Cyril Ramaposa, Mark Shuttleworth
Arts: Gavin Hood, Marius Weyers, Karl Nel
Literature: Zakes Mda, J.M. Coetzee, Nadine Gordimer, Ronnie Govender, Richard Reeve
Science and medicine: Dr Theiler, Dr Chris Barnard,
Fashion: Marianne Fassler, Gavin Rajah
Other?

Questions to ask the learner/class:
(a) What is his/her great South African's contribution to our society?
(b) What type of role-model is he or she?
(c) How do we measure his or her worth against someone else?
(d) How did you hear about him/her?
(e) Why are some of these role models controversial?

Activity 1.2 Homework task
Explanation of research task (Approx 10 – 20 mins). Tell the learner/s:
"Go home and ask your friends and family (at least 10 people who are not in your class or grade)
1. whom they consider to be the three greatest South Africans?
2. and why?

TASK 2
ORAL – GROUPWORK: Create a rap (approx 120 mins)
40 marks
RNCS: LO 2,5,6

PREPARATION LESSON (12 marks)
➢ See Learner Book for the instruction to learner/s and rubric:
Groupwork Peer Assessment:

Name	Groupwork participation Level	Time management Group assessment
Eg: Ann Smith	5	3
		Etc.

PERFORMANCE LESSON (28 marks)
Each learner will be assessed according to the following criteria:
Audibility and clarity, participation, language usage, preparedness, rap form. See Learner Paper for rubric.
At the end of the lesson, remind the learner/s to bring magazines for Task 3.

TASK 3
INDIVIDUAL TASK Visual communication – collage (60 Mins)
50 marks
RNCS: LO 3,5
Your learners will need 1 sheet of A4/A3 paper. See the Learner's Paper.
MEMO:
Negative influences include amongst others:
Use of language, drugs, sexual habits, corruption, fraud, manners, relationships with the opposite sex, violence, abuse, theft, anorexia, bulimia, cutting, unrealistic ambitions/expectations, obsession with wealth, success and status, leads to dangerous habits
Positive influences include amongst others:
Work ethic, achieving a dream, poor kid made rich, conversion from bad lifestyle, giving to the underprivileged, working for the good of the community
Picture and words used: Learners cannot use words alone. They must have a balance of pictures and words to convey meaning. To show anorexia for example, they could have a picture of a thin woman with the words "too thin". Foregrounding, font, colour and composition are important.