



Grade 8 Parents Information Evening

Mathematics

February 2018

Topics Covered

- ▶ The Curriculum (slide 3)
- ▶ Work Schedules & SBA (School Based Assessment) Schedules (slide 4)
- ▶ Homework (slide 5)
- ▶ Assessment (slides 6 – 11)
- ▶ The Setting System, Set Changes and Grade 8 Sets (slides 12 – 14)
- ▶ Mathematics and Mathematical Literacy (slide 15)
- ▶ Common Concerns, Homework Strategy & Reminders (slides 16 – 18)
- ▶ Mathematics and Computers (slides 19 – 20)
- ▶ Bishops intranet and email (slide 21 – 27)

The Mathematics Curriculum

Five key areas

- ▶ Numbers
- ▶ Algebra
- ▶ Geometry
- ▶ Measurement
- ▶ Probability & Statistics (Data Handling)

Goals

- ▶ to provide stimulation at appropriate levels
- ▶ to challenge boys to understand & appreciate their strengths
- ▶ to encourage boys to recognize and overcome their weaknesses
- ▶ to empower boys with skills essential for academic success in a rapidly changing world

Work and SBA Schedules

Boys are expected to plan ahead and meet deadlines

- ▶ under exceptional circumstance deadlines can be negotiated
- ▶ negotiations must take place when a task is handed
- ▶ NO negotiations will be entered into on or just before the due date

A detailed breakdown of all work to be covered each term appears on the Bishops Intranet and can be accessed by the boys from home.

- ▶ 2018 dates for all SBA tasks are available on the intranet
- ▶ tests can ONLY be written in their assigned slots and if a boy misses a test he is encouraged to write it in his own time, but it will NOT be counted and he will be marked as ABSENT for the test.

Homework

Work is covered at a fast pace

- ▶ the curriculum is both full and challenging
- ▶ homework plays an essential role in
 - empowering the boys to become more self-sufficient
 - helping boys to consolidate concepts covered in class
- ▶ Homework (not necessarily formal work set by the teacher)
 - completion of work done in class
 - preparation for SBA tasks such as common tests
 - completion of tutorials or assignments
 - revision for exams (past papers and tutorials from intranet)

Cognitive levels (across all grades)

- ▶ Knowledge 20%
- ▶ Routine Procedures 35%
- ▶ Complex Procedures 30%
- ▶ Problem Solving 15%

Rolling Averages on My Bishops Life

- ▶ Marks are updated on an ongoing basis
- ▶ Weightings change constantly
- ▶ Parents can track marks

Rolling averages continued

Common Tests (40 – 50 Marks)

- ▶ 15 marks very similar to questions in tutorial
- ▶ 25 – 35 marks based on classwork

Tutorials (20 Marks)

- ▶ 2 marks for punctuality
- ▶ 3 marks for effort and level of completion
- ▶ 15 marks extracted from the CT

Rolling averages continued

Investigations

- ▶ usually on unseen work
- ▶ relevant to classwork
- ▶ completed in class under test conditions

Graph Assignment

- ▶ Worked on both in class and at home
- ▶ Marks are awarded for
 - independence, punctuality & level of completion
 - validation test

June Report Mark

- ▶ June Exam
- ▶ All common tests
- ▶ All tutorials
- ▶ All investigations
- ▶ All assignments

November Report Mark

Approximate breakdown of marks, by percentage:

- ▶ November Exam (2 Papers) 60%
- ▶ June Exam (1 Paper) 16%
- ▶ Common Tests (14) 8%
- ▶ Tutorials (9) 8%
- ▶ All investigations (2) 4%
- ▶ Assignment 4%
- ▶ 4 lowest test marks are dropped if a boy has written all the tests
- ▶ If a boy is absent for four or more tests, no tests are dropped.

The Setting System

There are 7 Maths sets in Grades 8 and 9

- ▶ Sets 1, 2 & 3 are extended to prepare the boys for AP Maths
- ▶ Set 7 is the smallest set and weaker maths students are able to show significant improvements if they work hard
- ▶ Boys who start in lower sets can work their way into higher sets
- ▶ Boys in higher sets will be dropped to lower sets if they under-perform

Grade 8 setting should be done by the **15th February**

Boys will be set based on their marks in the following assessments:

- ▶ Pattern Investigation written on the 25th January
- ▶ A common test on basic algebra, scheduled for the 12th February.
- ▶ A Setting Test scheduled for the 13th February

Set Changes

- ▶ Individual set changes are made if a boy is misplaced in his set.
- ▶ Set changes are made
 - at the end of the first term
 - after the June exams
 - after the November exams
- ▶ **Requests** from parents or boys for a particular teacher or set are **NOT considered**.
- ▶ Changes are based on academic performance.
- ▶ Trust us to know what is best for each boy.
- ▶ Set changes are NOT made after each test.

Grade 8 Sets

Sets 1 – 2 have the same teacher from Grades 8 – 12.

Sets 3 – 7 have the same teacher for Grades 8 – 9.

2018 Grade 8 Maths teachers

- ▶ Set 1 Mrs Gardner
- ▶ Set 2 Mr Majaca (Mr Jacobs later in the year)
- ▶ Set 3 Mrs Rohr (Mr Gibbon is on long leave)
- ▶ Set 4 Mrs McPetrie
- ▶ Set 5 Ms Tshabalala
- ▶ Set 6 Mr Mohlabe
- ▶ Set 7 Mrs Campbell

Mathematics & Mathematical Literacy

In Grades 10 – 12 all boys take Mathematics or Mathematical Literacy

- ▶ Mathematics is essential for boys wanting to study
 - Medicine
 - Engineering
 - Commerce
 - Sciences
- ▶ Mathematics is **not required** by boys wanting to study
 - Fine Art
 - Law
 - Music, Art, Advertising and a multitude of other careers

Common Concerns

Homework can be frustrating

- it may be too difficult
- some boys don't know where to start
- it may take too long
- poor organizational skills result in neglected homework

Common Tests and Exams

- may feel inaccessible
- results may be poor and lead to low self-esteem

Helpful Strategy to minimize frustration

Set a digital timer for 5 minutes

No matter how challenging or frustrating the question:

- persevere for 5 minutes
- look over notes
- look for a similar example
- Give the problem a full go

Stop after 5 minutes

- leave all the attempted working on the page
- never erase the only effort as it provides proof of engagement
- the teacher can build on the effort if they can see it

Advice

Try to stay positive and encouraging no matter what!

- ▶ Challenge your son to take responsibility for his own progress.
- ▶ A good work ethic in class is essential.
- ▶ Homework must be properly attempted on a daily basis.
- ▶ Encourage your son to
 - attend Maths Support as often as possible
 - arrange a catch up session during an Open Period if he has fallen behind
 - form a study and/or homework group with friends
 - take full advantage of all the resources on the Bishops Intranet

ONLY resort to extra lessons if all else fails.

Maths and Computers

Maths is mostly done with pen and paper.

- ▶ understanding is enhanced by computer based teaching and learning
- ▶ **Excel** is a very powerful mathematical program
 - Grade 9s use Excel when they do statistics
 - Boys learn how to
 - use formulae
 - perform basic calculations
 - draw graphs
- ▶ Grade 11s and 12s use Excel to understand
 - Regression analysis
 - Recursive sequences
 - Financial Mathematics

Maths and Computers continued

Geogebra, Autograph, Desmos, Geometer's Sketchpad and other software products are particularly useful in helping the boys to explore and understand

- ▶ the properties of graphs (Grades 9 – 12)
- ▶ the properties of quadrilaterals (Grade 9)
- ▶ circle geometry theorems (Grades 11 & 12)

Grade 9s have access to **computer worksheets** to enhance their learning

- ▶ factors worksheets using Excel
- ▶ a factor test
- ▶ transformations using Excel
- ▶ Quadrilateral investigations
- ▶ a quadrilateral properties theory test

Bishops Intranet and email

The **intranet** is a very important resource and boys should access it frequently to


- ▶ prepare for common tests by
 - working through CTs from previous years
 - checking their solutions to tutorials before handing in their work
 - consolidating their understanding by working through past tutorials
- ▶ prepare for exams by working through past papers and checking their answers
- ▶ look for additional worksheets and notes on sections they are struggling with

Communication between teachers and boys is often via **email** and boys need to

- ▶ check their emails regularly
- ▶ respond appropriately and timeously


Bishops Intranet

← → ↻ | intranet.bishops.org.za/Maths

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Diocesan College

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Galilei, Galileo (1564 - 1642)

[The universe] cannot be read until we have learnt the language and become familiar with the characters in which it is written. It is written in mathematical language, and the letters are triangles, circles and other geometrical figures, without which means it is humanly impossible to comprehend a single word.
Opere Il Saggiatore p. 171.

Bishops Intranet

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Grade 8

2017 Grade 8 Parents Maths Information Presentation 2017
Grade 8 School Based Assessment Schedule in 2018
Grade 8 Work Schedule for 2018
Grade 8 June 2018 Exam Guidelines
Grade 8 November 2018 Exam Guidelines
CAPS Document
CASS Assignments
2010 CASS Assignments
2011 CASS Assignments
2012 CASS Assignments
2013 CASS Assignments
2014 CASS Assignments
2015 CASS Assignments
2016 SBA Tests and Tutorials
2017 SBA Tests and Tutorials
2018 SBA Tests and Tutorials
Constructions 2017
Past Tests
Past Papers
Power Point Project on Big and Small Numbers
Investigating the filling of Bottles, Time vs Height
Excel Training
Notes
Worksheets
Diagnostic Tests
Recorderd Presentations

Bishops Intranet

2017 SBA ASSIGNMENTS

Maths		Grade 8 SBA Tasks in 2017	
Home	CT 1	Setting Test	Memo
Information	CT 2	Numbers	Memo
Grade 8	CT 3	Algebra 1 (+, -, ×; expressions – no. of terms, coeff's, index, constant, substitution, words to algebra)	Memo
Grade 9	CT 4	Algebra 2 (+, -, ×; brackets, surds, expressions, substitution, words to algebra & basic problem solving)	Memo
Grade 10	CT 5	Equations	Memo
Grade 11	Tut 1	Geometry (basic geometry, properties of triangles and quadrilaterals)	Memo
Grade 12	CT 6	Geometry (basic geometry, properties of triangles and quadrilaterals)	Memo
NBT's	Tut 2	Pythagoras, Areas & Perimeters of Triangles, Unit conversions	Memo
AP Maths	CT 7	Pythagoras, Areas & Perimeters of Triangles, Unit conversions	Memo
Maths Literacy	Assignment	Constructions Notes on Constructions	
Software	Tut 3	Volume and Surface Area set 1 and 2	Memo
Competition Maths		Volume and Surface Area set 3 - 7	Memo
Useful Links	CT 8	Volume and Surface Area	Memo
Podcasts	Tut 4	Ratios, Percentage Increase & Decrease, Direct and Inverse Proportion	Memo
Thinky	CT 9	Ratios, Percentage Increase & Decrease, Direct and Inverse Proportion	Memo
Society	Tut 5	Finance, Exchange Rates & Commission	Memo
	CT 10	Finance, Exchange Rates & Commission	Memo
	Assignment	Graphs	Memo
	Tut 6	Exponential Laws and Applications	Memo
	CT 11	Exponential Laws and Applications	Memo
	Tut 7	Probability	Memo
	CT 12	Probability	Memo

Maths	Grade 8 SBA Tasks in 2018		
Home	CT 1	Algebra Basics	Memo
Information	CT 2	Setting Test	Memo
Grade 8	CT 3	Numbers	Memo
Grade 9	CT 4	Algebra 2	Memo
Grade 10	Tut 1	Equations	Memo
Grade 11	CT 5	Equations	Memo
Grade 12	Tut 2	Geometry	Memo
NBT's	CT 6	Geometry	Memo
AP Maths	Tut 3	Pythagoras, Areas & Perimeteres, Unit Conversions	Memo
Maths Literacy	CT 7	Pythagoras, Areas & Perimeteres, Unit Conversions	Memo
Software	Tut 4	Exponents	Memo
Competition Maths	Ct 8	Exponents	Memo
Useful Links	Tut 5	Finance	Memo
Podcasts	CT 9	Finance	Memo
Thinky	Tut 6	Volume and Surface Area	Memo
Society	CT 10	Volume and Surface Area	Memo
	CT 11	Constructions	Memo
	Tut 7	Transformations	Memo
	CT 12	Transformations	Memo
	Tut 8	Algebra and Equations with Fractions	Memo
	CT 12	Algebra and Equations with Fractions	Memo
	Tut 9	Probability	Memo
	CT 14	Probability	Memo

Bishops Intranet

PAST PAPERS

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June Exams		November Exams			
J 2001	Memo	N 2001 P1	Memo	N P2 2001	Memo
J 2002	Memo	N 2002	Memo		
J 2003	Memo	N 2003	Memo		
J 2004	Memo	N 2004	Memo		
J 2005	Memo	N 2005	Memo		
J 2006	Memo	N 2006	Memo		
J 2007	Memo	N 2007	Memo		
J 2008	Memo	N 2008	Memo		
J 2009	Memo	N 2009	Memo		
J 2010 no exam		N P1 2010	Memo	N P2 2010	Memo
J 2011	Memo	N P1 2011	Memo	N P2 2011	Memo
J 2012	Memo	N P1 2012	Memo	N P2 2012	Memo
J 2013	Memo	N P1 2013	Memo	N P2 2013	Memo
J 2014	Memo	N P1 2014	Memo	N P2 2014	Memo
J 2015	Memo	N P1 2015	Memo	N P2 2015	Memo
J 2016	Memo	N P1 2016	Memo	N P2 2016	Memo
J 2017	Memo	N P1 2017	Memo	N P2 2017	Memo