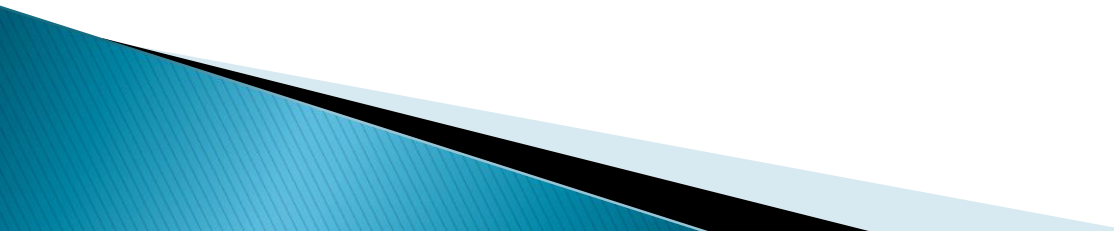


Teaching Maths at Alderman Knight School

A Presentation to Parents

Overview


- ▶ Background
 - ▶ Range of ability and qualifications on offer
 - ▶ Resources and approach
 - ▶ Opportunities to view range of resources and activities that are used and discuss with Maths staff ideas that can enable and engage your children.
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What is Maths?

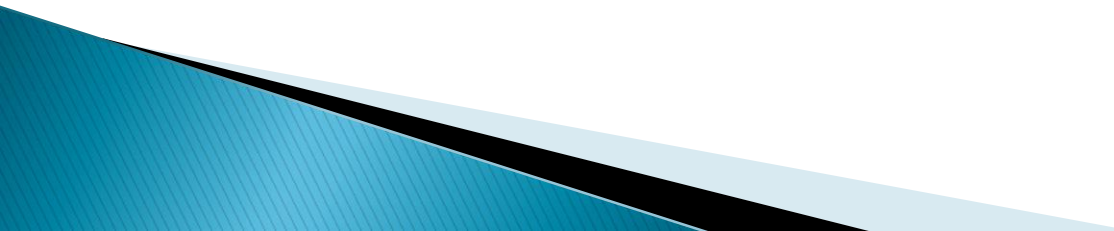
$\bar{p} \Delta V$
 $V = \frac{3}{t}$
 $\sum \vec{F} = m\vec{a}$
 $\sum F^x = 0 / \vec{a} = 0$
 $v_{rms} = \sqrt{\frac{v_1^2 + v_2^2 + v_n^2}{n}}$
 $N \vec{E} = k = N \left(\frac{1}{2} m v_{rms}^2 \right)$
 $4Ek$
 $(a+b) = (ae+ab)$
 $\left(\frac{a}{b}\right) = \left(\frac{au}{a} \times 100 + \frac{ab}{b} \times 100\right)$
 $v_x = \frac{\Delta y}{\Delta x} = \frac{10}{5} = 2 \text{ m/s}$
 $10/5 = 2$
 $20/10 = 2$
 $30/15 = 2$
 $g = g_{max} \cos \theta$
 $\frac{3nRT}{N} / \frac{3}{2} N k_B T$
 $T = \frac{1}{f} = f$
 v_{max}
 a_{max}
 $\frac{3nRT}{N}$
 $\frac{3}{2} N k_B T$
 a_{max}
 $3N$

What is Numeracy?

Background

- ▶ Range of students from KS1-5
 - ▶ Students might be working significantly below age expected stages in one or more subjects
 - ▶ English skills and communication can act as a significant barrier to independence and accessibility of subjects especially higher levels
 - ▶ Learners generally work in small groups with high levels of support
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Background in Maths

- ▶ A full range of abilities, talents and barriers to learning
 - ▶ Students ability ranges between different strands of the math curriculum
 - ▶ Limitations in some key strands can have limitations on others (e.g. calculations)
 - ▶ Students independence can be limited by English skills
 - ▶ Therefore students work on a fairly personalised programme, with other students of at a similar stage
- 

Range of Qualifications on offer

LEVEL 3

Level 3 Qualifications

- A-level, AS Level or equivalent qualifications
- Partnership being developed with Tewkesbury school

LEVEL 2

Level 2 Qualifications

- Some exams – modular – e.g. number, calculations, statistics
- Other 100% examination – Higher / Lower paper GCSE
- Students do not have to continue with Maths beyond this point

LEVEL 1

Level 1 Qualifications

- Exams – tend to be modular – e.g. number, calculations, statistics



Entry Level Qualifications

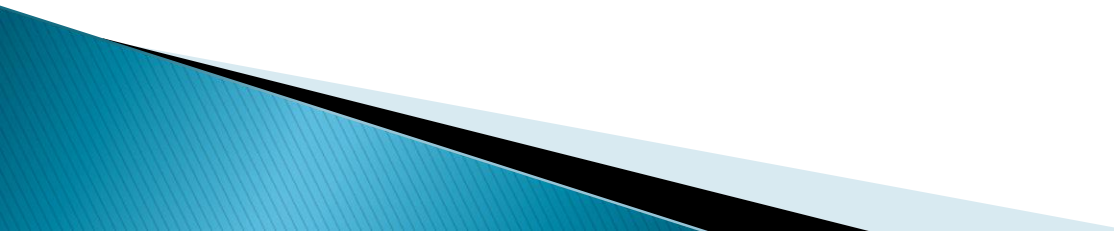
- Divided into 3 sub-levels 1,2,3 with Entry 3 the highest
- Mixture of portfolio assessment, coursework and exam (depending on level)

For more information:


<https://www.gov.uk/what-different-qualification-levels-mean/list-of-qualification-levels>

Aim:

“The aim is to work with students, at whatever their starting level throughout the school, to gain the basic skills in mathematics. This could be to have skills that enable them to access a range of life skills that permeate through the curriculum or gain the highest level of attainment or accreditation possible.



Resources and Approach

- ▶ Key aim is to ensure that students are numerate in key areas useful in everyday life:
 - ▶ Handling money, telling time, able to measure ingredients for cooking, reading a timetable
 - ▶ Where appropriate students are taught with age appropriate situations, adapted resources, in a practical way or with methods that work for them..
 - ▶ There might only be one correct answer, but not necessarily one way of getting there.
- 

- ▶ There might only be one correct answer, but not necessarily one way of getting there.

$$28 \times 56 =$$

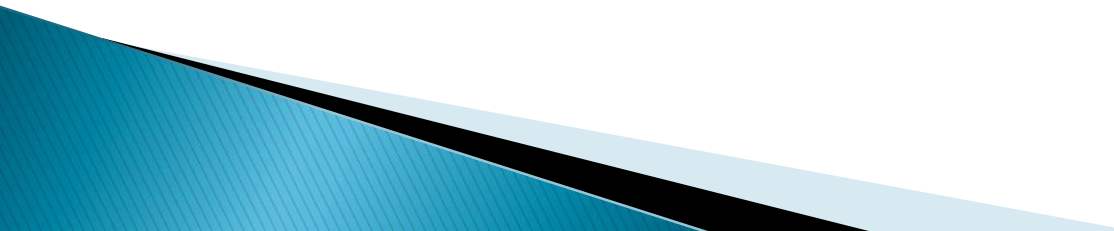
Calculators...

- ▶ Cannot get away from technology...
- ▶ However students need to understand the basic principles of arithmetic:
 - ▶ So they can problem solve
 - ▶ Undertake mental maths activities
 - ▶ Not be reliant on technology
 - ▶ Be used to working in logical steps

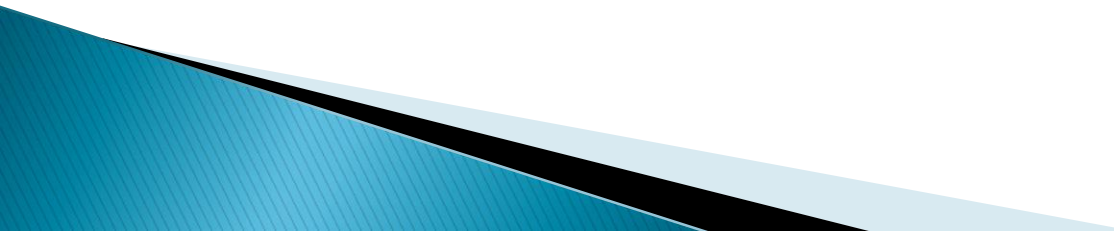
... and programme the calculator correctly



What can you do to help?

- ▶ Don't make a big deal out of Maths – positive attitude and enjoyment is important
 - ▶ Don't make Maths a chore, can use lots of techniques to be using maths in everyday situations that we just can't do
 - ▶ Sometimes the most simple is the best, as it can build confidence and self-esteem
- 

Example: Telling time

- ▶ Phone, tablet, digital watch all have clocks on the front screen
 - ▶ Wearing a watch even if they can't tell the time
 - ▶ Clocks in the house
 - ▶ Speaking clocks and watches
 - ▶ Calendars on display at home, birthdays, holidays
 - ▶ Watching football – time countdown
- 

Over to you...

- ▶ Tell us about things that work for you / your child to help them access maths
- ▶ Discuss ideas with other parents.
- ▶ Look at a selection of our resources that might work for your child