

## Numeracy across the Curriculum at Abbeyfield School

### Termly numeracy Focus:

- ✓ Posters are displayed in all classrooms
  - ✓ Information on termly focus is sent home to parents via the newsletter
  - ✓ Ponder the problem, on the termly focus, in toilets supports key skills for staff and students
- ✚ Impact – staff and students are more aware of the key skills for numeracy. Students have been heard saying ‘Can you get the Brain Trainer? I got it!’ Raised the profile of basic numeracy skills with students.

#### Termly focuses for Numeracy

Half Term	Numeracy Focus
1	Multiplication
2	Division
3	Percentages and Money
4	Data representation and interpretation
5	Time and Units of Measurement
6	Mean, Mode, Median and Range

#### Ponder the Problem Posters

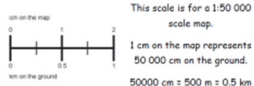
### CPD for staff on Numeracy:

- ✓ Whole staff training provided to staff in June 2016 by Maths staff. Delivered in department teams and focused on refresher training on basic numeracy skills and how they are applied in subject areas.
  - ✓ Ponder the Problem in the staff toilets– supports the termly focus
  - ✓ Numeracy across the curriculum posters up in department corridors and/or relevant subject specific rooms. These give staff and students clear examples of how and where numeracy is relevant to that subject.
  - ✓ TD Day September 2017 a reminder of numeracy focuses
  - ✓ Staff asked to encourage students to calculate their own percentage in an assessment as part of the assessment feedback.
- ✚ Impact - The profile of numeracy has been raised across the school and it is no longer seen as the domain of the Maths department. All staff can speak more confidently with each other and students about necessary numeracy skills.

## GEOGRAPHY

### Scale

In Geography the scale of a map is the ratio between the size of an object on the map and its real size.

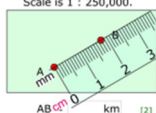


Ordnance Survey maps have different scales. Travel maps, for long distance travel, have a scale of 1:125 000 where 1 cm represents 1.25 km. Explorer maps, for walking, have a scale of 1:25 000 where 1 cm represents 250 m.

Landplan maps, used by town planners, have a scale of 1:10 000 where 1 cm represents 100 m.

In Maths we use scale in a similar way.

Scale is 1 : 250,000.



$$AB = 1.8 \times 250\,000 = 450\,000 \text{ cm} = 4\,500 \text{ m} = 4.5 \text{ km}$$

Similarly to find what length to draw an object on a diagram you would divide the real length by the scale factor. A distance of 6 km in real life would be represented by:

$$6 \div 250\,000 = 0.000024 \text{ km} = 0.024 \text{ m} = 2.4 \text{ cm}$$



## PSHE, RELIGIOUS EDUCATION & CITIZENSHIP



### Probability, Risk and Chance

What's the chance of you becoming infected with HIV? What's the risk of a baby being stillborn? How likely is it that you will live longer than your parents do? All these questions are connected with probability.

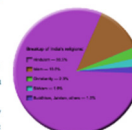
Probability can be discussed in different ways. Sometimes you simply use words such as "likely", "impossible" or "certain" making sure to back up your opinions with evidence.

You can give a more objective viewpoint if your probabilities are backed up by numbers.

From this Pie Chart you can see that 80.5% of India's population are Hindu.

If an Indian citizen was picked at random from a database you could estimate the probability that they were Hindu as 80.5%.

It would also be fair to say that they would be unlikely to be Buddhist.



### Numeracy Support for those who need it:

- ✓ Tutor time intervention and 1 to 1 support for students
- ✓ Numeracy champions form each tutor group – work with peers or lead feedback of solutions in tutor time.
- ✓ Two dedicated slots for Numeracy in the tutor programme. Tutors deliver; Tutor time 'Problem of the Week' as well as Countdown

✚ Impact – Students are encouraged to see numeracy as an important part of life



### Problems of the week

Which of the following is closest to zero?

- A  $6 + 5 + 4$     B  $6 + 5 - 4$     C  $6 + 5 \times 4$     D  $6 - 5 \times 4$     E  $6 \times 5 + 4$

Which of the following statements is false?

- A 12 is a multiple of 2    B 123 is a multiple of 3    C 1234 is a multiple of 4  
D 12 345 is a multiple of 5    E 123 456 is a multiple of 6

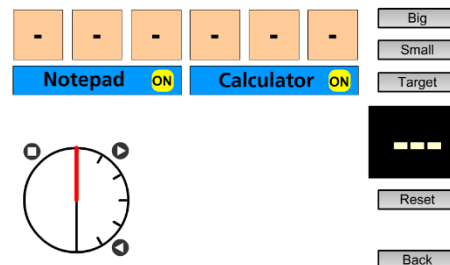
The diagram shows a pentagon drawn on a square grid. All vertices of the pentagon and triangle are grid points.

What fraction of the area of the pentagon is shaded?

- A  $\frac{2}{7}$     B  $\frac{1}{3}$     C  $\frac{2}{5}$     D  $\frac{1}{4}$     E  $\frac{2}{9}$



### Countdown Numbers Game



### EBI's moving forward this year:

- ✚ We can embed numeracy more into all subjects. There needs to be the provision of an 'Accelerated Reader' equivalent to support the development of skills in our weakest students. This was looked into term 6 of 2016 but a suitable option has not yet been found.
- ✚ more focused and specialised training for department teams based on their subjects and level of numeracy delivered through their curriculum.
- ✚ A clear school policy for Numeracy and the school's approach to Numeracy needs to be approved by the Governors.
- ✚ Raise the profile of Numeracy further by having numeracy focused challenges for students and competitions that run whole school.
- ✚ Provide staff with a written numeracy guide to support them in basic numeracy calculations and ways of working.