

Westcliff Centre for Gifted Children

# Go for Grammar!

2023-24





11+

Mathematics

Helping Parents Help Their Children





# Structure of the Examination

60 minutes

22 – 26 questions (possibly with parts to them)

“sound understanding of level 4/5 Mathematics”

Non-calculator



## Topic - Number

- Addition, subtraction of decimals and fractions.
- Long multiplication (including decimals and fractions) and division (including fractions).
- Conversion (g to kg, m to cm etc).
- Rearranging numbers to make an expression correct.
- Prime, square, even, odd, factors and multiples.
- Percentage increase and decrease.
- Highest common factor and lowest common multiple.
- Ratio and recipes.
- Order of operations.



## Topic – Number Example 1

- 6 The bus was due at Belmont School at 8.25am but was delayed by 27 minutes. How many minutes did the pupils have to walk from the bus to their classrooms for 9.00am registration?

Answer: \_\_\_\_\_mins.

- 8 A shop is giving a 10% discount on selected items. How much will an £852 flat screen T.V. be reduced by if it is selected to be in the sale?

Answer: £\_\_\_\_\_



## Topic – Number Example 2

- 5** Each of the following calculations is incomplete. This is indicated by a question mark. For each part of the question, state the value of the missing digit.

(a)  $56 + 975 = 10?1$

? =

(b)  $0.35 + 1.?? = 2.22$

? =

(c)  $9?5 - 128 = 777$

? =





## Topic – Number Example 3

- 18 (a) Which whole number less than twenty is *both* an even number *and* a prime number?
- (b) 4 is a square number and also an even number.  
*How many other* whole numbers less than fifty are even square numbers?
- (c) Which three prime numbers multiply together to make 154?

(5)

R  
W



## Topics - Shape

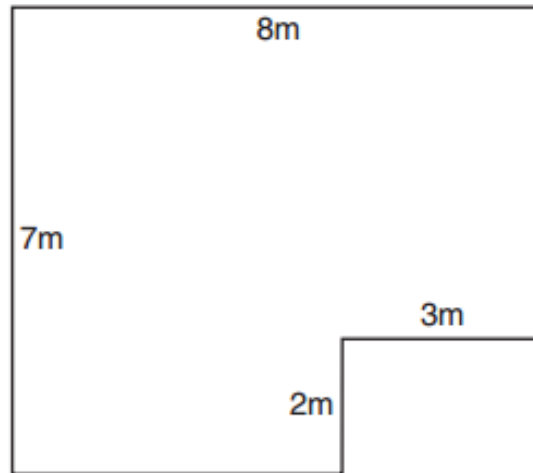
- Nets of cuboids.
- Area and Perimeter.
- Properties of shapes (squares, parallelograms, trapezium, rhombus, kite)
- Symmetry through shading of a shape.
- Symmetry through completing a shape.
- Angles on a straight line and in a triangle.
- 3-D objects and volume.





## Topic – Shape Example 1

**9** This is a sketch drawing of Kirin's office, which needs new carpet.



(a) What is the total area of the floor of the office?

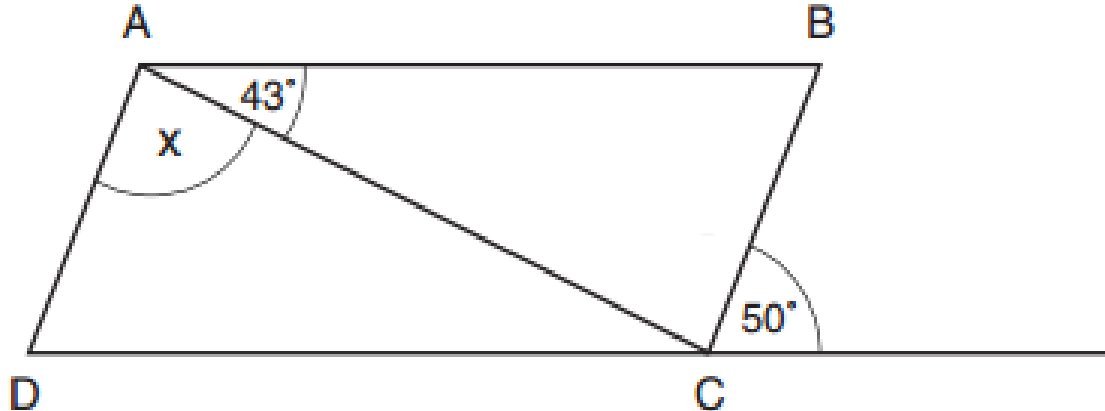
sq m

(b) How many carpet tiles, each 50cm x 50cm, would Kirin need to cover the floor?



## Topic – Shape Example 2

9



The figure ABCD in the diagram is a parallelogram.  
Calculate the size of the angle labelled  $x$ .





## Topic – Shape Example 3

**22** Four sided shapes are known as quadrilaterals. There are several types of quadrilateral including: square, oblong, parallelogram, kite, rhombus and trapezium.

Thinking about these different types, decide whether the following statements are true for **all**, **some** or **no** quadrilaterals.

(a) “All four sides are the same length.”  
Is this statement true for **all**, **some** or **no** quadrilaterals?

(b) “All four angles are acute.”  
Is this statement true for **all**, **some** or **no** quadrilaterals?



## Topics - Data

- Bar charts.
- Venn diagrams and probability.
- Two way tables.
- Pie charts.
- Mean, median and mode.





## Topic – Data Example 1

**20** Four boys played in a cricket match. Their batting scores were 26, 13, 4 and 19.

(a) What was the average (mean) score?

(b) Another boy, Sam, batted next. The average (mean) score for the five boys is now 16. What was Sam's score?



## Topic – Data Example 2

**20** Train times between London and Brighton depend on the number of stops made on the way. Calculate the time taken by the **fastest** train from the table below.

|                | Train A | Train B | Train C | Train D | Train E |
|----------------|---------|---------|---------|---------|---------|
| Departure Time | 16.17   | 16.45   | 17.10   | 17.36   | 18.04   |
| Arrival Time   | 17.22   | 17.55   | 18.06   | 18.45   | 19.02   |





## Topic – Data Example 3

- 6 25 children were asked how many cousins they had.  
The results are shown in the bar chart.



(a) How many children had no cousins?

ANSWER

(b) How many children had more than two cousins?



## Topics - Algebra

- Algebraic addition and subtraction.
- Algebraic substitution.
- Linear sequences.
- Contextual questions.
- Assigning letters with values.





# Topic – Algebra Example 1

**10** In this question letters of the alphabet are assigned number values:  
A = 1, B = 2, C = 3, D = 4, ....

The **sum total** of a word is created by **adding** the value of the letters.

For example: the sum total of 'HAD' =  $8 + 1 + 4 = 13$

(a) What is the sum total of the word 'TANK'?

(b) List the following words in order of their sum total,  
starting with the lowest:

DOG      CATS      FISH      BIRD

Lowest

.....  
.....



## Topic – Algebra Example 2

- 14** Sam is completing a table of values for the formula  $2(n+1)$ . He has completed the first row of the table.

| $n$ | $2(n+1)$ |
|-----|----------|
| 5   | 12       |
| 19  |          |
|     | 80       |

Complete the table with the two missing values.



## Topic – Algebra Example 3

**24** Work out the value of  $x$  if:

$$\frac{1}{12} + \frac{1}{24} = \frac{1}{x}$$





## Helping with Maths

All of these examples are simply to highlight standard topic questions, they do not cover every possible question.

Many questions are in context.

Practise contextual questions the most.



# Helping with Maths

Encourage problem solving:

Day to day problems.

Don't help, let them figure it out for you.

Encourage confidence.



# Helping with Maths

## Ask questions:

Differences in methods.

Differences in language.

Prompt him or her with questions





## Helping with Maths

Please don't tell your son that you can't do Maths (so that might be why he is struggling):

Even if he is struggling with a topic, simply applying to a Grammar school and being willing to take the 11+ means that he is above the average ability in the country.



## Helping with Maths

### Encourage the use of diagrams/tables:

They clarify problems, allow pupils to visualise the problem and encourage systematic working.

### Encourage them to try an easier case:

If a problem is complicated, can it be simplified or can a smaller problem be tackled first?



## Helping with Maths

Pupils who are very successful at Mathematics approach problems logically and systematically. Those who aren't tend to rush in and do *something* with the numbers, however illogical that may be.





## Good Mathematicians:

Understand the problem (by using diagrams/tables and playing around with some numbers)

Plan their approach (look at a simpler case and build up, for example)

Carry out their work

Evaluate their answer (i.e. check it is reasonable).



## Help In School

Ask the teacher in the school.

Try familiarisation papers available on the CSSE website.

Attend Help Sessions when they are offered.

Use educational websites (e.g. BBC Bitesize, MyMaths if the school has a subscription).





11+  
English

**Helping Parents Help Their Children**





# The English Paper Components

| Section       | Skill              | Time Allowed | Approx. Marks |
|---------------|--------------------|--------------|---------------|
| Reading Time  | -                  | 10mins       | -             |
| Section One   | Comprehension      | 30mins       | 30            |
| Section Two   | Applied Reasoning  | 10mins       | 5             |
| Section Three | Continuous Writing | 20mins       | 15            |



## Section One: Content

Text likely to come from a classic source, e.g. C19<sup>th</sup> or early C20<sup>th</sup>

Several multiple choice questions

Need awareness of devices like similes and metaphors

One long vocabulary question worth around 12 marks

Summary skills: Explain what Character A thinks of Character B

Need to be able to place the text in its context – what clues are there it was written in the past?



## Sample Vocabulary Questions

12. Select from the passage **one word** which most closely corresponds to the word or phrase on the left. Guidance is given in the right hand column below on the lines within which the word may be found.

12 marks

|                       | Word from passage | Look in lines |
|-----------------------|-------------------|---------------|
| A. wild/natural       | feral             | 12 - 13       |
| B. rodents            | rats              | 18 - 20       |
| C. bit by bit         | piecemeal         | 23 - 26       |
| D. clearly            | distinctly        | 26 - 28       |
| E. skilful            | adroit            | 28 - 30       |
| F. throwing the voice | ventriloquism     | 28 - 30       |
| G. disbelieving       | incredulous       | 39 - 41       |
| H. in the midst of    | amid              | 40 - 42       |
| I. disdain            | unconcern         | 43 - 45       |
| J. carpet             | Axminster         | 49 - 52       |
| K. reply              | rejoinder         | 51 - 53       |
| L. tiny amount        | shred             | 59 - 60       |





## Shared Reading of Classic Texts

Suggested titles:

- *Treasure Island* – Robert Louis Stevenson
- *Black Beauty* – Anna Sewell
- *Oliver Twist* – Charles Dickens
- *The Secret Garden* – Frances Hodgson Burnett
- *The Call of the Wild* / *White Fang* – Jack London





## Learning to Summarise

Discuss your shared reading together.

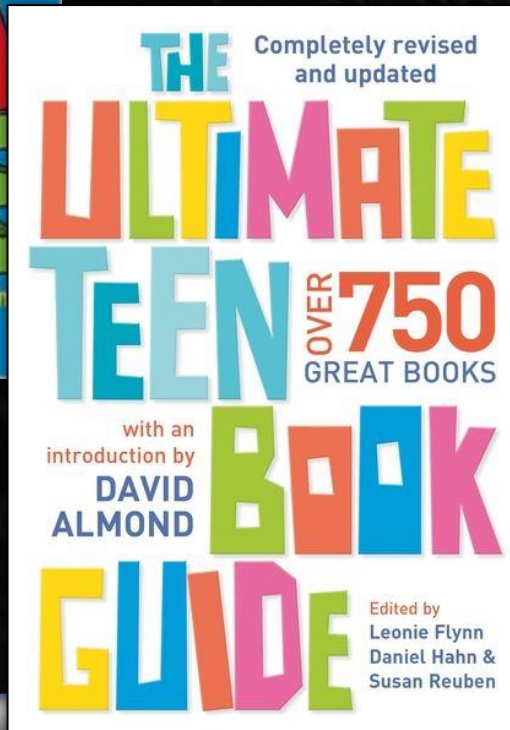
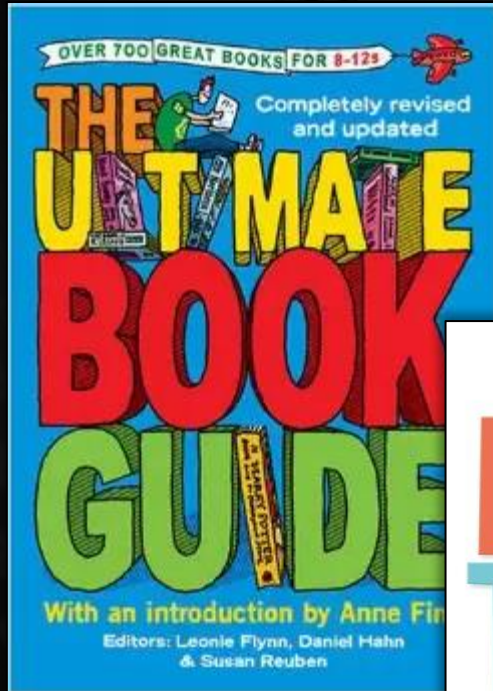
“Let’s summarise the main events of what we read tonight.”

“What do you think were the three most important things that happened in this chapter?”





# Reading for Pleasure



## ACROSS THE NIGHTINGALE FLOOR

Lian Hearn

12+

From its opening, in which a young boy wanders back from a carefree afternoon to find a massacre going on in his village, this story grips the reader and refuses to let go. It's an extraordinarily powerful and highly original fantasy packed with scenes of haunting beauty and horrifying violence. In a world where warring clans vie for supremacy, while hidden strings are pulled by the mysterious Tribe, the boy Takeo must make a painful choice between power, love, and revenge.

This is fantasy at its most sophisticated—but it's not for the squeamish.

Brian Keaney, Author

### Next?

There are two sequels: *Grass for His Pillow* and *Brilliance of the Moon*, which continue the story of Takeo and Keede.

If that makes you wonder about Japanese society, try Katherine Paterson's *The Master Puppeteer*.

Catherine Jinks's *The Pagan Chronicles* series (UTBG 200), set in the 12th century at the time of the Crusades, is just as exciting—and gory!

Or try a classic adventure such as Alexandre Dumas's *The Count of Monte Cristo*.

## THE ADVENTURES OF HUCKLEBERRY FINN

Mark Twain

14+

### Next?

Try *The Further Adventures of Huckleberry Finn* by Greg Matthews. Written in 1993, this sequel takes Twain's characters and uses them in a much darker Western that nevertheless manages the near-impossible task of capturing the spirit of Twain's original. One warning: it's much more adult.

For modern stories of the American West, read Aaron Proulx's *Close Range*.

For another classic tale of the life of slavery, try Harriet Beecher Stowe's *Uncle Tom's Cabin*.

Scared that his drunken father might pursue him for the money he discovered with Tom Sawyer, Huckleberry Finn signs his fortune over to Judge Thatcher; but this doesn't stop his dad from dragging him off to an old cabin and beating him every day. Huck escapes to Jackson's Island, where he meets his friend Jim, a runaway slave. Leading the townspeople to believe Jim has murdered Huck for his money, the two of them set sail on the Mississippi River, beginning a series of adventures that are far more elaborate, amusing, and exciting than those in *The Adventures of Tom Sawyer*. Considered one of the best sequels ever, and a great novel in every respect, this is a must-read.

Matt Thorne, Author

6

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# Useful Websites for Developing Vocabulary

[www.vocabulary.com](http://www.vocabulary.com)

**Word Dynamo:** [www.dynamo.dictionary.com](http://www.dynamo.dictionary.com)

The screenshot shows the homepage of the Word Dynamo website. The browser address bar displays 'dynamo.dictionary.com'. The website has a red header with navigation links: 'Home', 'Browse', 'iPad', and 'Writing Dynamo'. A search bar labeled 'Search Library' is on the right. The main content area features a large blue banner with the text 'How many words do you know?' and 'Play the Word Dynamo Challenge and turbo-charge your vocabulary'. A red 'Start Now' button is positioned below the banner. To the right of the banner is an illustration of a notepad with a green lightning bolt and a red 'A+' grade. Below the banner, there is a section titled 'Choose a topic to learn' with a search bar. This section contains four categories: 'Grade Levels' (College, High School, Middle School, Elementary), 'Academic Subjects' (Computers & Business, English, Fine & Performing Arts, Math), 'Test Prep' (SAT, GRE, ACT, GMAT, LSAT), and 'Foreign Language' (Latin, Spanish). On the right side of the page, there is an advertisement for 'grammarly' titled 'Instant Grammar Checker' with a 'Try Now' button.



# Family Games to Aid Learning

‘Articulate for Kids’

‘Don’t Say It!’

‘Think! Words’

‘Last Word’







## Section Two – Applied Reasoning

Essentially English verbal reasoning

Download free past papers from different exam boards at  
[www.elevenplusexams.co.uk](http://www.elevenplusexams.co.uk)

Educational games online: [www.woodlands-junior.kent.sch.uk](http://www.woodlands-junior.kent.sch.uk)

Prefixes and suffixes flashcards for free download at  
[www.havefunteaching.com](http://www.havefunteaching.com)

Reliable published workbooks include Bond and CGP.





# Sample Applied Reasoning Question

## SECTION TWO

### APPLIED REASONING (Spend about 10 minutes on this section)

Please do  
not write in  
this space

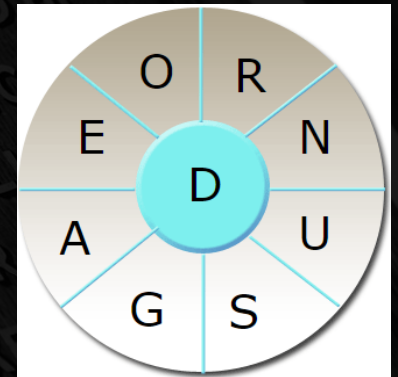
Complete the words using the same letter in each gap.

*For example:*

ha( )d      ( )obot      *should be completed*      ha(r)d      (r)obot  
ra( )( )le      dra( )t      *should be completed*      ra(f)(f)le      dra(f)t



# Spelling and Letter Games





## Section Three: Continuous Writing

Two writing questions (both need to be completed)

One piece of descriptive writing

One piece of factual writing (informative/instructional)

| SECTION THREE   |  | Please do not write in this space |  |
|---|--|-----------------------------------|--|
| <b>CONTINUOUS WRITING</b> (Spend about 20 minutes on these 2 questions)   |  |                                   |  |
| 1. Write five or six sentences describing an animal. For example a cat, a dog, a guinea pig, a horse. Make your writing as vivid as possible. |  |                                   |  |
| 2. In five or six sentences write down clear instructions how to make a piece of toast with jam. Make your writing as precise as possible.    |  |                                   |  |





# Continuous Writing - Improving Content

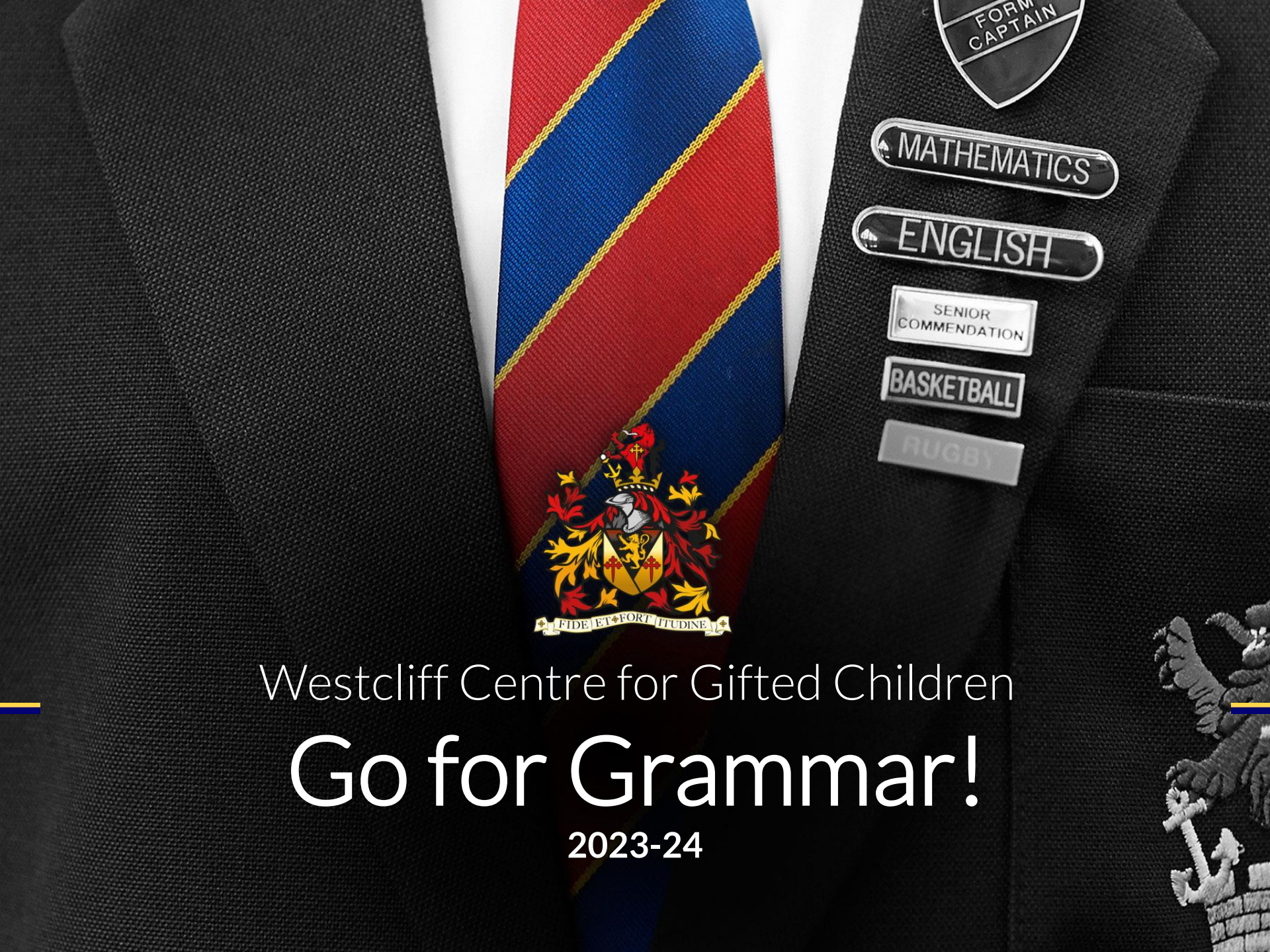
- Reading (again!)
- Write a description in the same style as a favourite author– “Can you invent your own...?”
- Use images to stimulate descriptive writing
- Encourage the use of similes, metaphors and onomatopoeia
- Practise expressing the same idea using different sentence structures
- Provide non-fiction texts (fact books; things to make and do)
- Create silly instruction guides, e.g. explaining to an alien how to brush your teeth



# How to Improve Technical Accuracy

- Listen to work being read aloud
- Ask them to proofread; read work backwards to check spellings
- Insist on practice where spelling errors occur ('look, cover, write, check')
- Explain the rule, not the answer
- Dots in the margin to indicate errors
- Use a grown-ups' guide: [www.oxforddictionaries.com/grammar](http://www.oxforddictionaries.com/grammar)





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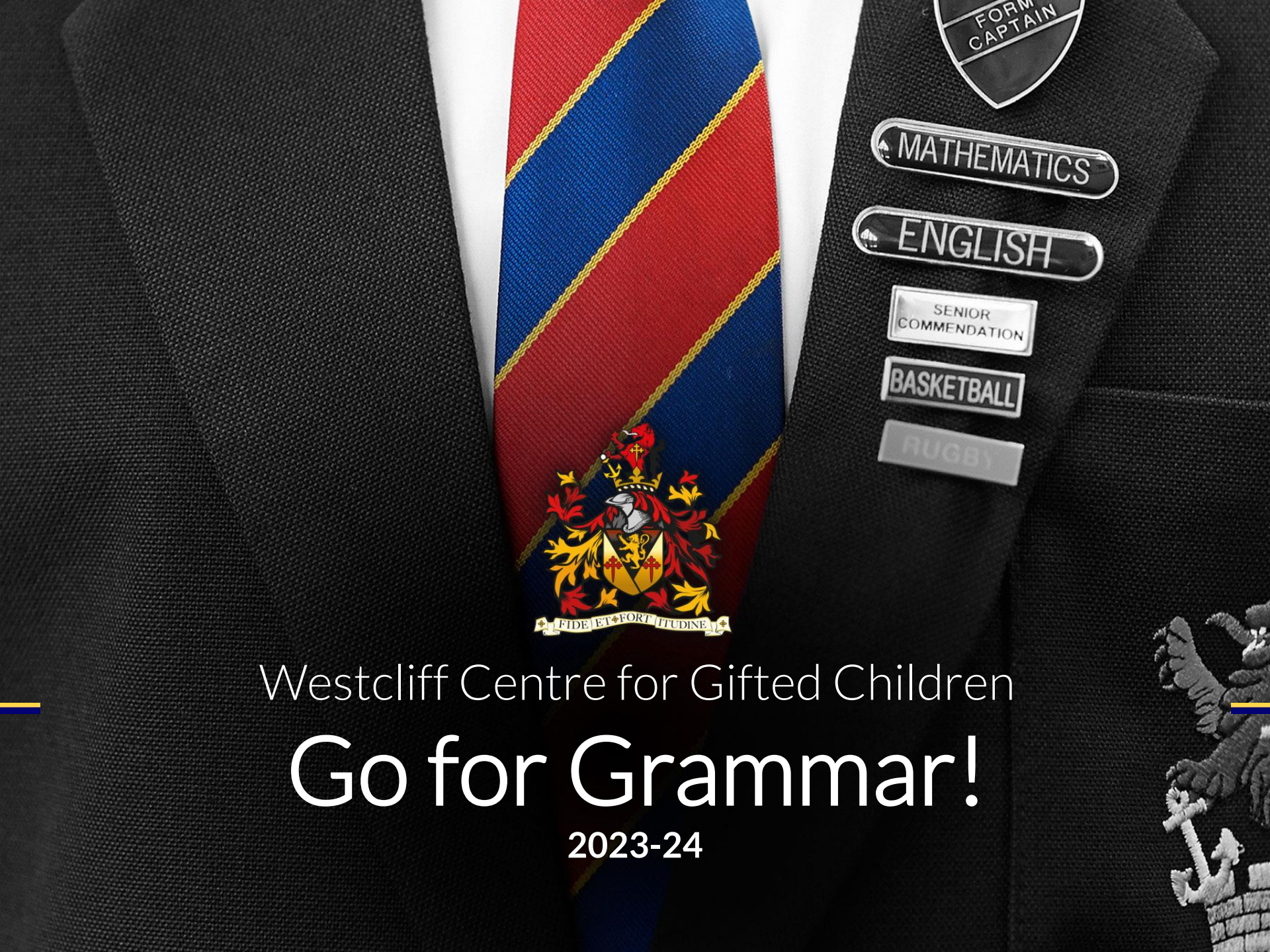




# Tips from the Parents' Association

- ✎ Ask your child's Primary School teachers about their 11+ chances. They will be able to give advice regarding your child's strengths and weaknesses. Remember: not all children are suited to a selective Grammar School education.
- ✎ Take an interest in what your child is doing with plenty of positive encouragement and support. Broaden your child's mind with visits to museums, galleries, and other places of interest.
- ✎ Get hold of past papers – the CSSE provides downloadable familiarisation papers that are free of charge: <http://csse.org.uk/>
- ✎ Look at 11+ study guides. There are a plethora of books and practice papers available to buy at good booksellers and online retailers.
- ✎ Set reasonable targets. Your child already does a day's work at school and may have homework too, so don't overdo it. Sitting down and doing practice papers within the given time limits can be helpful.
- ✎ Don't make the 11+ exams the "be all and end all". Rather than telling your child "You've got to get into this school", say something like, "Let's just have a go at it". Have a "Plan B" in the event of your child not being successful.
- ✎ Make sure your child eats well, sleeps well, and gets lots of fresh air, exercise, and time to relax and to play. A structured routine in the run-up to the exams is beneficial – and remember that the 11+ day takes place less than a month after the start of the Autumn Term and following the long summer break.
- ✎ Ensure your child has an early night and healthy breakfast before the exams. Afterwards, don't do a lengthy debrief – and don't comment on any mistakes your child might have made. If they are upset or worried, reassure them that they have done their best.
- ✎ If a place at a selective Grammar School has been secured, ensure your child works hard for the remainder of Year 6. They are expected to adapt quickly once in Year 7 and it is easy to make a slow start.
- ✎ Your child will need to be far more organised at Secondary School than at Primary School. Establishing a routine in the morning and evening will help the day start smoothly and with minimum stress. Ensure your child always has a sensible and healthy breakfast – this will help them to concentrate!





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