Parent and Carer Information: Year 5 Maths

This guide can help you to track the progress of your year 5 child as they develop through the subject of maths. In year 5, children learn the key skills that form the basis of their maths education, including place value, counting, money and problem solving. Practising these skills at home can be a great way to boost your child's confidence and complement what they learn in the classroom. This guide outlines how you, as parents and carers, can best support your child's year 5 maths journey, with an easy-to-follow flowchart of what they will learn and clear goals for you to work on together.

Click on each topic to head to the relevant category on the Twinkl website to find super resources to support your child. Alternatively, you can follow the web url **www.twinkl.co.uk/resources/parents** to get to the Twinkl Parents Hub.

Roman Numerals to 1000

Roman Numerals to 1000

We have also included handy tick boxes, so you can easily check off when you have covered each topic, and you can keep on track with your child's studies. You can also use the 'traffic light' system to record your child's confidence, and how they feel about the topic you have covered together.

Stick the other pages together to create a display poster for both you and your child to fill in. Complete with handy tick boxes, this chart is ideal for helping to support your child's studies from home.

Don't forget to look out for the stars on select topics! You and your child can revist these topics to gain greater understanding and really go the extra mile to push learning and understanding further.

○ I feel unsure about this.

○ I feel okay about this.

○ I feel confident about this!
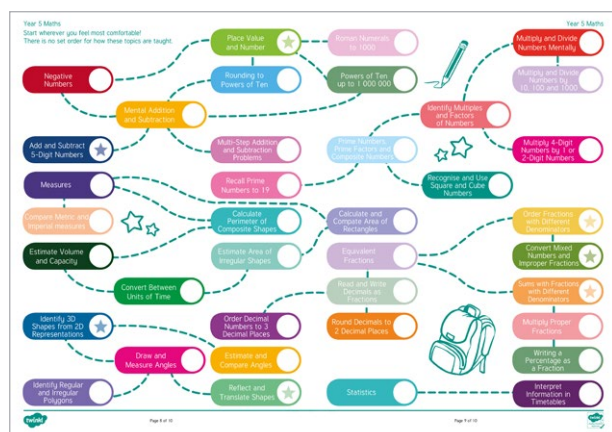
We hope you find the information on our website and resources useful. The contents of this resource are for general, informational purposes only. This guide is intended to offer parents general guidance on what subject areas tend to be covered in their child's year group and where they could support their children at home. However, please be aware that every child is different and information can quickly become out of date. There are some subject areas that we have intentionally not covered due to the nature of how they are taught or because a trained professional needs to teach these areas. We try to ensure that the information in our resources is correct but every school teaches the national curriculum in its own way. If you would like further guidance or are unsure in any way, we recommend that you speak to your child's teacher or another suitably qualified professional.

Place Value and Number

Your child can read and write numbers up to 1 000 000. They can make comparisons between numbers and place them in size order.

Roman Numerals to 1000

Your child can read Roman numerals up to 1000. They can also recognise years written in Roman numerals.

Multiply and Divide Numbers Mentally

Your child can use their knowledge of times tables and number facts to multiply and divide numbers in their heads.

Negative Numbers

Your child can count up and down through 0. They can count using negative numbers and use them in context. For example, your child could use them to read a thermometer accurately.

Rounding to Powers of Ten

Your child can round numbers to the nearest 10, 100, 1000, 10 000, 100 000. They can do this with any number up to 1 000 000.

Powers of Ten up to 1 000 000

Your child can count up or down in groups of 10, 100, 1000, 10 000 or 100 000 from any given number. This means they can take any number, up to 1 000 000, and count in powers of ten from that number. For example, counting in hundreds: 3482, 3582, 3682, 3782; or counting in groups of thousands: 14 711, 15 711, 16 711.

Multiply and Divide Numbers by 10, 100 and 1000

Your child can multiply and divide any number by 10, 100 or 1000. This also includes multiplying and dividing decimal numbers, using their knowledge of place value.

Mental Addition and Subtraction

Your child can use their knowledge of number to add and subtract larger numbers in their heads, without written methods. For example, 252 + 341 = 593.

Identify Multiples and Factors of Numbers

Your child can recognise multiples and factors of numbers. This means that they can recognise numbers that appear in a certain times table or can be divided by a certain number. For example, the factors of 20 are 1, 2, 4, 5, 10 and 20. All these numbers can be multiplied in some way to make 20.

Add and Subtract 5-Digit Numbers

Your child can use written methods of maths to add and subtract numbers with more than 4 digits. For example:

```
  12719
+ 14552
———————
```

Multi-Step Addition and Subtraction Problems

Your child can use their knowledge of number, place value, addition and subtraction to solve problems. These problems will be multi-step problems, meaning they will have to carry out more than one task to find the answer to the question.

Prime Numbers and Factors and Composite Numbers

Your child can recognise the language of prime numbers, prime factors and composite numbers. They understand what these phrases mean and can explain to someone else what they are. A prime number is any number that can only be divided by itself or 1. Prime factors are prime numbers that multiply together to make another number. For example, the prime factors of 10 are 5 and 2 because 5 x 2 = 10 and 5 and 2 are prime numbers. Composite numbers are numbers that aren't prime numbers.

Multiply 4-Digit Numbers by 1 or 2-Digit Numbers

Your child can use written methods to multiply numbers up to 4 digits by a 1-digit or 2-digit number. For example,

```
    1253
×     15
————————
```

$$
\begin{array}{l}
3 \times 5 = 15 \\
50 \times 5 = 250 \\
200 \times 5 = 1000 \\
1000 \times 5 = 5000 \\
\hline
\qquad 6265
\end{array}
\quad + \quad
\begin{array}{l}
3 \times 10 = 30 \\
50 \times 10 = 500 \\
200 \times 10 = 2000 \\
1000 \times 10 = 10\ 000 \\
\hline
\qquad 12\ 530
\end{array}
\quad = \quad
\begin{array}{r}
6\ 265 \\
+\ 12\ 530 \\
\hline
18\ 795
\end{array}
$$

Measures

Your child can recognise the links between the different units of measurement. For example, how many cm in a m, how many m in a km or how many g in a kg. They can use this information to convert between the measures (e.g. 50mm = 5cm = 0.05m).

Recall Prime Numbers to 19

Your child can remember all the prime numbers up to 19. These are 2, 3, 5, 7, 11, 13, 17 and 19. They can also work out if any number up to 100 is a prime number.

Recognise and Use Square and Cube Numbers

Your child can identify square and cube numbers. For example, some of the cube numbers are 1, 8, 27, 64, 125. This is because 1 × 1 × 1 = 1; 2 × 2 × 2 = 8; 3 × 3 × 3 = 27.

Compare Metric and Imperial Measures

Your child will recognise common imperial units of measure such as inches, pounds and pints. They will be able to work out the approximate equivalent to metric measurements (for example, 1 inch = 2.5 cm, 3 inches = 7.5 cm, 1 pint = 568 ml).

Calculate Perimeter of Composite Shapes

Your child can measure the perimeter (outside) of a shape. They can work out the perimeter of shapes that are made up of more than one rectangular shape, by working out the length of missing sides then adding them all together.

Order Fractions with Different Denominators

Your child can make comparisons between fractions with different denominators (bottom number), convert them to the same denominator and then place them into size order. For example, $\frac{1}{3}$, $\frac{4}{6}$, $\frac{6}{12}$ = $\frac{4}{12}$, $\frac{8}{12}$, $\frac{6}{12}$ then place these in size order.

Estimate Volume and Capacity

Your child can estimate the capacity of a container of liquid. They can make sensible guesses to how much liquid a container can hold. They can also use cubes to build cuboids and use this representation to estimate the volume of a shape.

Estimate Area of Irregular Shapes

Your child can estimate the area of irregular shapes. They can estimate the lengths and widths of different parts of the shape and use this information to create a sensible estimate for the area.

Equivalent Fractions

Your child can recognise fractions that are equal to one another (for example, $\frac{4}{8}$ is equivalent to $\frac{1}{2}$, $\frac{2}{4}$, $\frac{3}{6}$, $\frac{5}{10}$, $\frac{6}{12}$). They can demonstrate this in a number of different ways, including diagrams, number statements and using objects.

Convert Mixed Numbers and Improper Fractions

Your child can explain what a mixed number and improper fraction is. They recognise the relationship between them and use this information to convert between mixed numbers and improper fractions (e.g. $1\frac{1}{3}$ = $\frac{4}{3}$; $2\frac{4}{6}$ = $\frac{16}{6}$).

Convert Between Units of Time

Your child can solve problems that involve converting between units of time. This can recognise how many hours in a day or week, how many days and weeks in a month and how many days and weeks in a year. They can use this information to solve problems and give answers in different time scales. For example, giving the answer in numbers of days and weeks.

Read and Write Decimals as Fractions

Your child can identify the link between decimal numbers and fractions. They can represent fractions as decimals and vice versa (for example, $\frac{1}{5}$ = 0.2; $\frac{1}{2}$ = 0.5; $\frac{3}{4}$ = 0.75).

Sums with Fractions with Differnt Denominators

Your child can add and subtract fractions that have different denominators (bottom number). They can convert the fractions to the same denominator, then add or subtract from there (e.g. $\frac{3}{8} + \frac{8}{24} = \frac{9}{24} + \frac{8}{24} = \frac{17}{24}$).

Identify 3D Shapes from 2D Representations

Your child can recognise and name 3D shapes. They can describe the properties of 3D shapes and also recognise them when presented in flat, unfolded 2D form.

Order Decimal Numbers to Three Decimal Places

Your child can read and write numbers with up to three decimal places. They can then make comparisons between these numbers and place them in size order.

Round Decimals to Two Decimal Places

Your child can round decimal numbers with two decimal places to the nearest whole number and to one decimal place. For example, 3.28 = 3 to the nearest whole number and 3.3 to one decimal place.

Multiply Proper Fractions

Your child can multiply proper fractions and mixed numbers by whole numbers. For example, $\frac{2}{5}$ × 3 = $\frac{6}{5}$ or $1\frac{1}{5}$; $2\frac{1}{4}$ × 6 = $\frac{54}{4}$.

Draw and Measure Angles

Your child can use a protractor to draw angles of a given size accurately. They can also use protractors to measure angles and identify how many degrees they are.

Estimate and Compare Angles

Your child can estimate the size of angles. They recognise if an angle is an acute (less than 90 degrees), obtuse (between 90 and 180 degrees) or reflex (greater than 180 degrees) angle, then use this information to make sensible estimates to the size of an angle.

Writing a Percentage as a Fraction

Your child can describe per cent as meaning 'out of every 100'. They can identify percentages as fractions by using 100 as a denominator (or example, 50% = $\frac{50}{100}$; 25% = $\frac{25}{100}$).

Identify Regular and Irregular Polygons

Your child can identify if a shape is regular or irregular. A regular shape is a 2D shape where all the sides are the same size and all the angles are the same size. An irregular shape is one where the sides and angles are different.

Reflect and Translate Shapes

Your child can reflect or translate a shape, then describe its new position. For example, they can do this using coordinates or by describing the movement the shape has made within the translation. They also recognise that although the shape has moved, it hasn't changed, it is still the same shape.

Statistics

Your child can identify the information found in a line graph. They can interpret the information and answer questions about the graph. They can also describe the difference between a line graph and other types of graphs.

Interpret Information in Timetables

Your child can identify the information found in a timetable. They can interpret the information and answer questions about the timetable.
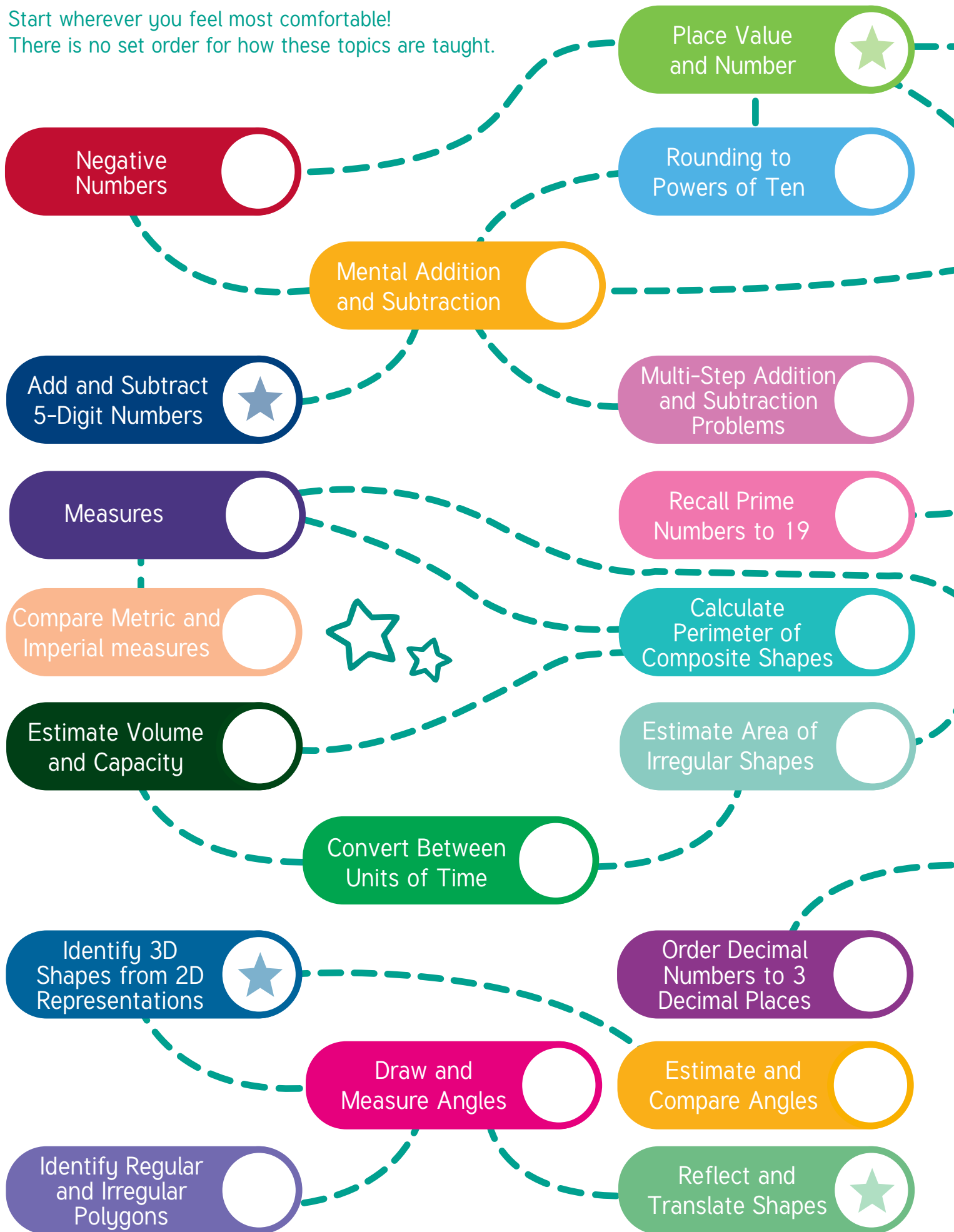
Calculate and Compare Area of Rectangles

Your child can count squares to find the area of shapes before moving onto finding the area of rectangles using a formula. Your child can find the area of compound shapes through investigation and understands that that the area will always remain the same no matter how many parts a compound shape has been split into.

Year 5 Maths
Start wherever you feel most comfortable!
There is no set order for how these topics are taught.

Place Value and Number

Negative Numbers

Rounding to Powers of Ten

Mental Addition and Subtraction

Add and Subtract 5-Digit Numbers

Multi-Step Addition and Subtraction Problems

Measures

Recall Prime Numbers to 19

Compare Metric and Imperial measures

Calculate Perimeter of Composite Shapes

Estimate Volume and Capacity

Estimate Area of Irregular Shapes

Convert Between Units of Time

Identify 3D Shapes from 2D Representations

Order Decimal Numbers to 3 Decimal Places

Draw and Measure Angles

Estimate and Compare Angles

Identify Regular and Irregular Polygons

Reflect and Translate Shapes

twinkl

Roman Numerals to 1000

Powers of Ten up to 1 000 000

Prime Numbers, Prime Factors and Composite Numbers

Calculate and Compare Area of Rectangles

Equivalent Fractions

Read and Write Decimals as Fractions

Round Decimals to 2 Decimal Places

Statistics

Multiply and Divide Numbers Mentally

Multiply and Divide Numbers by 10, 100 and 1000

Identify Multiples and Factors of Numbers

Multiply 4-Digit Numbers by 1 or 2-Digit Numbers

Recognise and Use Square and Cube Numbers

Order Fractions with Different Denominators

Convert Mixed Numbers and Improper Fractions

Sums with Fractions with Different Denominators

Multiply Proper Fractions

Writing a Percentage as a Fraction

Interpret Information in Timetables

twinkl
Quality Standard Approved

Above and Beyond

If you really want to go the extra mile, you and your child can review these sections to gain a greater understanding of each topic and push their learning further.

★ Place Value and Number

Your child can solve problems involving thermometers. They can work out changes in temperature and calculate differences by counting through 0.

★ Add and Subtract 5-Digit Numbers

Your child can round larger numbers to make sensible estimations for answers to addition and subtraction questions. For example, 1249 + 3413 estimated = 1200 + 3400 = 4600. Your child will know that the answer will be around 4600.

★ Order Fractions with Different Denominators

Your child can use visual representations to order fractions with denominators from different multiples. For example, $\frac{2}{4}$, $\frac{2}{3}$, $\frac{5}{8}$, $\frac{6}{20}$.

★ Convert Mixed Numbers and Improper Fractions

Your child can simplify fractions into their smallest possible version. To simplify a fraction, they can divide the top and bottom number by the highest number that they can both go into. For example, $\frac{8}{12}$ both 8 and 12 can be divided by 4, so $\frac{8}{12} = \frac{2}{3}$.

★ Sums with Fractions with Different Denominators

Your child can multiply pairs of fractions. They recognise that you have to multiply the numerators by one another and the denominators by one another. For example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$.

★ Identify 3D Shapes from 2D Representations

Your child can identify what a 3D shape looks like when it is unfolded into a flat, 2D shape. They can use this information to create their own 2D representation of a 3D shape.

★ Reflect and Translate Shapes

Your child can translate or reflect a shape into the 2nd quadrant of an XY grid. They can identify the new coordinates of the shape, including negative numbers.

Explore and Discover More

Twinkl Go! is a digital platform, hosting interactive content such as videos, games, audiobooks and more. Twinkl Go! enables digital content to be streamed to your computer or mobile device.

Twinkl Book Club is our book subscription service. Enjoy our original works of fiction in beautiful printed form, delivered to you each half-term and yours to keep!

Twinkl Boost is a range of intervention resources, created to support and lift learning with children at every level. These include our easy-to-use SATs Survival and Phonics Screening Survival resources.

Imagine resources are designed to help you your children to think creatively, question and imagine. Every week, a new topic consisting of five photos, each with related activities, is created.

Twinkl Originals are engaging stories written to inspire children from EYFS to KS2. Designed to encourage a love of reading and help curriculum-wide learning through accompanying resources.

visit twinkl.com