## Introducing our spring term newsletter

Dear members of the Numeracy Ninjas Family,
We hope your academic year is going well and that your learners are showing good progress with their numeracy skills. We have lots of exciting news to share with you in this Spring Term edition of our newsletter, keeping you up to date with all Numeracy Ninjas developments.


We will share with you our biggest news, the launch of our brand new product, Ninjas Plus which has been built based on customer requests. This takes Numeracy Ninjas to the next level, covering the next 150 skills above those in the standard (Series A) programme.

In this edition we will also be sharing the 20 winning schools in the Spring and Summer Terms Prize Draws.

Furthermore, we will showcase another initiative you can use to keep your learners engaged in learning numeracy, featuring some resources from the PDC related to numeracy in darts.

We hope you and your families enjoyed a wonderful Easter break and are looking forward to the Summer Term. We look forward to working with you again in 2024.

Best wishes,
Will \& Emma


## Ninjas Plus- Next Level Ninjas 150 New Ninja Skills 150 New Skill Checks

$$
\begin{aligned}
& \text { numeracy } \\
& \text { NINJAS }
\end{aligned}
$$

We are thrilled to share with you the launch of our brand-new product, Ninjas Plus.
This is a programme featuring the next 150 skills above the standard (Series A) Numeracy Ninjas programme. If you use the standard Series A resources with Year 7 (aged 11-12), Ninjas Plus will be ideal for your learners to move onto in Years 8, 9 \& 10 (aged 12-15).

The programme is split into three levels: bronze, silver and gold, with each level introducing 50 new Ninja Skills. The bronze programme launched this week, and the silver and gold will follow soon.

For full details see our Ninjas Plus page on our website and see screenshots of the programme's resources over the next few pages.


## Screenshots from Ninjas Plus

## Example of a Ninjas Plus Skill Check

## wheracy ${ }^{+}$ NINJAS

SESSION 3-NINJAS PLUS SKILL CHECK
Non-calculator. Use written calculations if useful

| Q | Question | Answer | Q | Question | Answer |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Write this inequality in words $x \geq 5$ |  | 6 | Find $x$ |  |
| 2 | The nth term rule for a linear sequence is given below. Write the first 5 terms in the sequence $3 n-5$ |  | 7 | Find $x$ |  |
| 3 | Draw the line $x=-1$ |  | 8 | Find $x$ |  |
| 4 | Equation of this line? |  | 9 | Find $x$ |  |
| 5 | Find $x$ |  | 10 | Convert 3.5 cm into mm |  |

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NINJA SCORE:
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## Screenshots from Ninjas Plus

Example of the Answers Presentation



## Screenshots from Ninjas Plus

Example of the Achievement Certificates

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\text { N } \mu \quad \mathrm{M} E \quad \mathrm{R} \quad \alpha \quad \mathrm{C} \mathrm{Y}^{+}
$$

BRONZE PROGRAMME

| B O O K 1 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SESSION | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| NINJA SCORE |  |  |  |  |  |  |  |  |



| BOOK 2 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SESSION | 1 | 2 | 3 | 4 | 5 | $6 \quad 7$ | 8 |
| NINJA SCORE |  |  |  |  |  |  |  |





|  | B O O K 5 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SESSION | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| NINJA SCORE |  |  |  |  |  |  |  |



| B O O K 6 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SESSION | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| NINJA SCORE |  |  |  |  |  |  |  |  |  |  |


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## 150 New Ninja Skills Covered in Ninjas Plus

| Bronze programme |  |  |
| :---: | :---: | :---: |
| Book 1 | 1 | Power laws- power of one |
|  | 2 | Power laws- power of zero |
|  | 3 | Power laws- multiplying numbers with the same base |
|  | 4 | Power laws- dividing numbers with the same base |
|  | 5 | Power laws- power of a power |
|  | 6 | Prime factor form |
|  | 7 | Add fractions with like denominators |
|  | 8 | Subtract fractions with like denominators |
|  | 9 | Multiply fractions |
|  | 10 | Multiply an integer by a fraction |
| Book 2 | 1 | Divide fractions |
|  | 2 | Divide an integer by a fraction |
|  | 3 | Divide a fraction by an integer |
|  | 4 | Convert a mixed number to an improper fraction |
|  | 5 | Convert an improper fraction to a mixed number |
|  | 6 | Find a fraction of an amount |
|  | 7 | Find a percentage of an amount |
|  | 8 | Find one number as a percentage of another |
|  | 9 | Equivalent ratios |
|  | 10 | Simplify a ratio |
| Book 3 | 1 | Direct proportion questions |
|  | 2 | Inverse proportion questions |
|  | 3 | Writing expressions |
|  | 4 | Collecting like terms |
|  | 5 | Multiplying terms |
|  | 6 | Dividing terms |
|  | 7 | Expand a single bracket |
|  | 8 | Substitution |
|  | 9 | Solve linear equations with integer solutions |
|  | 10 | Write an inequality from words |
| Book 4 | 1 | State an inequality in words |
|  | 2 | Generate terms of a linear sequence from its nth term rule |
|  | 3 | Plot basic lines on a cartesian plane |
|  | 4 | Find the equation of a basic line on a cartesian plane |
|  | 5 | Basic angle facts- angles around a point |
|  | 6 | Basic angle facts- angles on a straight line |
|  | 7 | Basic angle facts- vertically opposite angles |
|  | 8 | Basic angle facts- angles in a triangle |
|  | 9 | Basic angle facts- angles in a quadrilateral |
|  | 10 | Metric length unit conversions |
| Book 5 | 1 | Metric weight unit conversions |
|  | 2 | Perimeter of basic shapes |
|  | 3 | Area of a square |
|  | 4 | Area of a rectangle |
|  | 5 | Area of a parallelogram |
|  | 6 | Area of a triangle |
|  | 7 | Mode from a list of data |
|  | 8 | Mean from a list of data |
|  | 9 | Median from a list of data |
|  | 10 | Range from a list of data |
| Book 6 |  | Mix-up of Bronze Programme Ninjas Plus Skills |


| Silver programme |  |  |
| :---: | :---: | :---: |
| Book 1 | 1 | Power laws- unit fraction powers |
|  | 2 | Power laws- negative powers |
|  | 3 | Highest common factor |
|  | 4 | Lowest common multiple |
|  | 5 | Collecting like terms- surds |
|  | 6 | Multiplying surds |
|  | 7 | Dividing surds |
|  | 8 | Write an ordinary number in standard form |
|  | 9 | Write a number in standard form in ordinary form |
|  | 10 | Add fractions with different denominators |
| Book 2 | 1 | Subtract fractions with different denominators |
|  | 2 | Increase by a percentage |
|  | 3 | Decrease by a percentage |
|  | 4 | Find a percentage change |
|  | 5 | Share a quantity in a given ratio |
|  | 6 | Simplifying algebraic terms- power of a power |
|  | 7 | Expand single brackets and simplify |
|  | 8 | Expand double brackets and simplify |
|  | 9 | Factorise into a single bracket by removing HCF |
|  | 10 | Factorise into double brackets- $\mathrm{a}=1$ |
| Book 3 | 1 | Solve linear equations with fractional solutions |
|  | 2 | Solve linear equations with an unknown on both sides |
|  | 3 | Solve linear equations involving brackets |
|  | 4 | Solve a linear inequality |
|  | 5 | Find the nth term rule of a linear sequence |
|  | 6 | Plot a line on a cartesian plane from its equation |
|  | 7 | Find the gradient of a line from its equation |
|  | 8 | Find the y intercept of a line from its equation |
|  | 9 | Find the $y$ intercept of a line on a cartesian plane |
|  | 10 | Basic angle facts- base angles in an isosceles triangle |
| Book 4 | 1 | Basic angle facts- angles in an equilateral triangle |
|  | 2 | Angles in parallel lines- alternate angles |
|  | 3 | Angles in parallel lines- co-interior angles |
|  | 4 | Angles in parallel lines- corresponding angles |
|  | 5 | Sum of interior angles in a polygon |
|  | 6 | Sum of exterior angles in polygon |
|  | 7 | Perimeter of a compound shape |
|  | 8 | Circumference of a circle |
|  | 9 | Area of a trapezium |
|  | 10 | Area of a circle |
| Book 5 | 1 | Surface area of a cube |
|  | 2 | Surface area of a cuboid |
|  | 3 | Volume of a prism |
|  | 4 | Pythagoras- finding a missing hypotenuse |
|  | 5 | Mode from a frequency table |
|  | 6 | Modal class interval from a grouped data frequency table |
|  |  | Plot/interpret a line graph |
|  | 8 | Plot/interpret a bar chart |
|  | 9 | Plot/interpret a scatter graph |
|  |  | Identify a correlation from a scatter graph |
| Book 6 |  | Mix-up of Silver Programme Ninja Plus Skills |


| 1 | Power laws- unit fraction powers |
| :--- | :--- |

2 Power laws- negative powers
3 Highest common factor
5 Colle line
Book 1
6.

7 Dividing surds
8 Write an ordinary number in standard form 9 form
10 Add fractions with different denominators
2 Increase by a percentage
3 Decrease by a percentage
5 Share a quantity in a given ratio

| Book 2 | 2 |
| :---: | :--- |
|  | 6 |
|  | Simplifying algebraic terms- power of a power |
|  |  |

7 Expand single brackets and simplify
8 Expand double brackets and simplify
9 Factorise into a single bracket by removing
10 Factorise into double brackets- $\mathrm{a}=1$
1 Solve linear equations with fractional solutions
${ }_{2}$ Solve linear equations with an unknown on
Solides

4 Solve a linear inequality
5 Find the nth term rule of a linear sequence

Book 3
equation
7 Find the gradient of a line from its equation
8 Find the $y$ intercept of a line from its equation 9 plane
Basic angle facts- base angles in an isosceles
triangle
1 triangle
2 Angles in parallel lines- alternate angles
3 Angles in parallel lines- co-interior angles
parall lines-corresponding angles

6 Sum of exterior angles in polygon
7 Perimeter of a compound shape
8 Circumference of a circle
9 Area of a trapezium
of a circle
1 Surface area of a cube
surface area of a cuboid

4 Pythagoras- finding a missing hypotenuse
5 Mode from a frequency table
Modal class interval from a grouped data 6 frequency table
7 Plot/interpret a line graph

9 Plot/interpret a scatter graph
10 Identify a correlation from a scatter graph
Book 6 Mix-up of Silver Programme Ninja Plus Skills

| Gold programme |  |  |
| :---: | :---: | :---: |
| Book 1 | 1 | Power laws- non-unit fraction powers |
|  | 2 | Power laws- negative and fractional powers |
|  | 3 | Simplifying surds |
|  | 4 | Write a number close to standard form in standard form |
|  | 5 | Add numbers in standard form |
|  | 6 | Subtract numbers in standard form |
|  | 7 | Multiply numbers in standard form |
|  | 8 | Divide numbers in standard form |
|  | 9 | Add mixed numbers |
|  | 10 | Subtract mixed numbers |
| Book 2 | 1 | Multiply mixed numbers |
|  | 2 | Divide mixed numbers |
|  | 3 | Given a fraction of an amount, find the whole amount |
|  | 4 | Calculate a reverse percentage |
|  | 5 | Share in a ratio given part of the ratio |
|  | 6 | Share in a ratio given the relationship between parts of the ratio |
|  | 7 | Factorise into double brackets- a > 1 |
|  | 8 | Factorise using the difference of two squares |
|  | 9 | Solve a linear inequality and state the integers satisfying it |
|  | 10 | Find the gradient of a line on a cartesian plane |
| Book 3 | 1 | Find the equation of a line on a cartesian plane |
|  | 2 | Basic angle facts- multi-step questions |
|  | 3 | Angles in parallel lines- multi-step questions |
|  | 4 | Size of interior angles in a regular polygon |
|  | 5 | Size of exterior angles in a regular polygon |
|  | 6 | How many sides on a regular polygon |
|  | 7 | Metric area unit conversions |
|  | 8 | Metric volume unit conversions |
|  | 9 | Metric capacity unit conversions |
|  | 10 | Perimeter of a semi-circle |
| Book 4 | 1 | Area of a compound shape |
|  | 2 | Area of a semi-circle |
|  | 3 | Surface area of a triangular prism |
|  | 4 | Surface area of a pyramid |
|  | 5 | Surface area of a cone |
|  | 6 | Surface area of a sphere |
|  | 7 | Volume of a cone |
|  | 8 | Volume of a pyramid |
|  | 9 | Volume of a sphere |
|  | 10 | Pythagoras- finding a missing shorter side |
| Book 5 | 1 | Calculate a reverse mean |
|  | 2 | Mean from a frequency table |
|  | 3 | Median from a frequency table |
|  | 4 | Median class interval from a grouped data frequency table |
|  | 5 | Estimated mean from a grouped data frequency table |
|  | 6 | Plot/interpret a comparative bar chart |
|  | 7 | Plot/interpret a composite bar chart |
|  | 8 | Draw/interpret a pie chart |
|  | 9 | Plot/interpret a stem and leaf diagram |
|  | 10 | Plot/interpret a frequency polygon |
| Book 6 |  | Mix-up of Gold Programme Ninja Plus Skills |

## Engaging Learners in Numeracy Through Darts

Did you know that darts isn't just a game of skill and precision, but also a fascinating world of mathematics? Recently, we came across an insightful article on the Professional Darts Corporation (PDC) website that explores the intricate maths behind the sport.

Let's take a quick peek into this numerical adventure:
1.Scoring Precision: Darts is all about hitting specific targets on the board to score points. But it's more than just throwing-it's about maximising your score with each dart. From basic addition to calculating averages and percentages, players constantly use maths to assess their performance and plan their next move.
2.Checkouts and Strategies: Ever wondered how darts players decide which targets to aim for when finishing a game? It's about finding the most efficient path to victory. By applying mathematical principles such as probability and optimisation, players determine the best checkout routes to swiftly close out a game and win.
3.Mental Maths Mastery: In the fast-paced world of darts, there's no time for calculators. Players rely on mental maths skills to calculate scores, checkouts, and potential paths to victory. Quick thinking and sharp numerical acumen are essential for staying ahead of the game.

By embracing the mathematics of darts, we not only appreciate the strategic depth of the sport but also sharpen our numeracy skills in a fun and engaging way.

Check out the article which also features videos you can play your learners to engage them in the sport and also some activity worksheets to use.

Until next time, keep aiming high and sharpening those numerical skills!

## Reward your Ninjas

It's that time of year when you can start thinking about rewarding your learners for the progress they have made on their Ninja Score.

Take a look at the Numeracy Ninjas Online Shop which sells a range of merchandise to suit all tastes and budgets including stickers, fridge magnets, $t$-shirts, water bottles, phone cases and much more.


## Spring and Summer Terms Prize Draws

We are delighted to announce the following subscribing schools as winners of the Spring and Summer Terms Prize Draws:

| Spring Term Winners | Summer Term Winners |
| :--- | :--- |
| Mordiford CofE Primary School | Cambian School |
| Catshill Middle School | Orchardside School |
| Rougemont School | Heartlands Academy |
| Ullapool High School | St-Thomas More Catholic Academy |
| Thames Christian School | St Peter's School |
| Gaynes School | The Galloway School |
| The Abbey School | Newark Academy |
| Cedar Lodge School | Break Through School |
| Brackensdale Spencer Academy | The Elland Academy |
| Bromley Trust Academy | Ormiston Endeavour Academy |

You have each won a selection of Ninjas-branded prizes to share with your students. These will be posted to you at the start of the summer term. Congratulations!

## Get Social

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