## Learning Plan Subject: Mathemateg/Mathematics

## Year: 7

Knowledge focus/What matters:
4 Purposes: Ambitious Capable Learners, Enterprising Creative, Contributors, Ethical Informed Citizens, Healthy Confident Individuals
Our Vision: At Prestatyn High School, we are creating learners who:

- Place value and multiplying/dividing by $10 / 100$ etc / writing big numbers
- Number bonds to 10, 20, 100
- 'Jumping over' 10 s
- Addition and subtraction of whole numbers and decimals (inc money) mental/written
- Adding lists of numbers - different methods/estimating mental/written

Algebra uses symbol system to express the structures of relationships between numbers, quantities and relations:

- Commutativity with addition
- Linear graphs

Geometry focuses on relationships involving properties of shape, space and position:

## ASPIRE to great things;

Have a desire to CREATE and be enterprising;

Are inspired to LEARN new and interesting things;
THINK for themselves and make good choices;

Are encouraged to GROW in confidence, health and understanding;

ACHIEVE goals which will set them up for their whole lives;

ENJOY learning, now and through the rest of their lives.

- Perimeter of shapes

| Learning Objective/Big Question | Learning activities | I can... | Skills | Homework |
| :---: | :---: | :---: | :---: | :---: |
| Weeks 1, 2 and 3: Develop, secure and apply understanding of place value | Develop and secure understanding of place value for positive integers Use place value for non-integers Read, write and interpret numbers Multiply and divide by 10, 100, 1000 Weeks 1, 2 and 3 Numeracy questions | write a number in words if I'm given it in numerical form. write a number using digits if I'm given it in words. <br> divide any number by (10, 100, 1000 or more) by moving the digits (one/two/three...) columns smaller. <br> divide any number by 10, 100, 1000 or more by moving all the digits in my head. <br> round numbers to the nearest $10,100,1000$ etc. <br> write down smallest and greatest values of a number, using the rules of rounding. <br> write a number in standard form. write a number in standard form as a normal number. round numbers to significant figures. find the bounds of numbers. | Numeracy <br> Team work <br> Digital competency <br> Literacy <br> Problem solving | Weekly homework to be set on mymaths or mathswatch by class teacher on place value |


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| Mid-term formative feedback point |  |  |  |  |  |
| Weeks 4 \& 5: <br> Develop, secure and apply an understanding of number bonds | Develop and secure understanding of number bonds for positive and negative integers and non-integers <br> Discuss and use efficient and accurate methods when applying addition to integers and decimals Draw and interpret linear graphs. 'Jumping Over' 10's Week 4 \& 5 Numeracy questions Extension: plotting $x+y=10$ Odds and Evens activity 24 investigation (including plotting $x+y=24$ ) |  | recall all the number bonds to 10 using positive integers. <br> work out the number bonds to 10 using positive and negative integers. <br> work out the number bonds to 10 using any numbers, including decimals and fractions. <br> recall or work out the number bonds to 100. <br> 'jump over 10s' when adding two numbers to make it quicker. | Numeracy <br> Team work <br> Digital competency <br> Literacy <br> Problem solving | Weekly homework to be set on mymaths or mathswatch by class teacher on number bonds. |
| Weeks 6, 7 \& 8: Understand and use efficient, accurate methods of addition and subtraction | Discuss and use efficient and accurate methods when applying addition and subtraction to integers and decimals: different methods/estimating/mental/written methods add and subtract amounts of money Verify calculations about number by inverse reasoning and approximation methods <br> Explore commutativity with addition and recognise when two different numerical expressions describe the same situation. Explore perimeter of shapes <br> Weeks 5, 6 and 7 Numeracy questions Consecutive Numbers enrichment activity <br> Think of a Number enrichment activity |  | set out the numbers with column headings when adding whole numbers with pen and paper. add any numbers, including decimals, using column headings. use different strategies to help myself when adding numbers in my head eg number bonds, adding the tens first etc. set out the numbers with column headings when subtracting whole numbers with pen and paper. subtract any two numbers with pen and paper, including decimals, using column headings. subtract tens first then units when subtracting numbers in my head. <br> continue a sequence when the rule is adding or subtracting and write down the term to term rule. <br> 'add on' instead when subtracting two numbers in my head find the perimeter of a shape. find the perimeter of a shape when some of the sides are not given. | Numeracy <br> Team work <br> Digital competency <br> Literacy <br> Problem solving | Weekly homework to be set on mymaths or mathswatch by class teacher on addition and subtraction. |

