

Learning Plan 2
SUBJECT Maths and Numeracy
Set: Year 9 Foundation tier



**Ysgol Uwchradd
Prestatyn
High School**

If you are having trouble completing your MathsWatch homework, speak to your maths teacher as soon as possible. You can do this either in your lesson or through Teams.

Knowledge Focus

Number: Using a calculator, 4 operations with fractions, equivalences between fractions, decimals and percentages, negative numbers, indices, standard form, using a calculator.
Algebra: Substitution, basic conventions, expansion of brackets.

Skills, Knowledge and Understanding to be developed:

- Interpret a calculator display.
- Use equivalences between decimals, fractions, ratio and percentages.
- Understand and use negative numbers.
- Add, subtract, multiply and divide negative numbers.
- Use index notation.
- Interpret numbers written in standard form.
- Understand and use the hierarchy of operations.
- Know how a calculator orders its operations.
- Use a calculator effectively.
- Understand and use the basic conventions of algebra.
- Collect like terms.
- Expand brackets.

Key Terms to be learned:

Number

Lowest common multiple, mixed number, improper fraction; recurring decimal, integer, number line, index, index notation, indices, power, square, square root, cube, standard form, operations, BIDMAS.

Algebra

Expression, term, expand.

<p>Week 1 Learning Objectives: <u>Numeracy and Mathematics</u></p> <ul style="list-style-type: none"> • Use a calculator and interpret answers in the context of the problem. • Check answers to calculations using inverse operations with and without a calculator. • Estimate the answers to multiplication and division problems by first rounding to one significant figure. • Check that answers are of the correct size. <p>➤ MathsWatch clips 17, 126, 127.</p>	➔	<p>Objective assessments:</p> <p>Completion of exam style questions on estimation.</p>	<p>Homework:</p> <p>Suitable Mathswatch questions set by teacher on estimation.</p>
<p>Week 2 Learning Objectives: <u>Numeracy and Mathematics</u></p> <ul style="list-style-type: none"> • Convert a percentage to a fraction in its simplest form. • Convert a fraction to a percentage and vice versa. • Convert a percentage to a decimal and vice versa. • Convert a decimal to a fraction and vice versa. • Use knowledge of equivalency to order and compare whole numbers, decimals, fractions and percentages. • Use non-calculator and calculator methods to investigate recurring decimals and exact fractions. <p>➤ MathsWatch clips 68, 69.</p>	➔	<p>Objective assessments:</p> <p>Completion of exam style questions on equivalence between fractions, decimals and percentages.</p>	<p>Homework:</p> <p>Suitable Mathswatch questions set by teacher on equivalence between fractions, decimals and percentages.</p>
<p>Week 3 Learning Objectives: <u>Numeracy and Mathematics</u></p> <ul style="list-style-type: none"> • Use negative numbers in real life situations. • Order directed numbers. • Add and subtract negative numbers using a number line, including where two signs meet. • Multiply and divide negative numbers. • Manipulate negative numbers in real life contexts to solve problems. <p>➤ Mathswatch clips 19, 58ab.</p>	➔	<p>Objective assessments:</p> <p>Completion of exam style questions on negative numbers.</p>	<p>Homework:</p> <p>Suitable Mathswatch questions set by teacher on negative numbers.</p>

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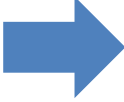
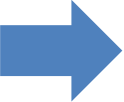

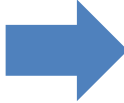


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Algebra: Substitution, basic conventions, expansion of brackets.

<p>Week 4 Learning Objectives: <u>Numeracy and Mathematics</u></p> <ul style="list-style-type: none"> Investigate roots and powers using a calculator. Identify square numbers, cube numbers and square roots with and without a calculator. Estimate squares and square roots without a calculator. Investigate and use the rules of indices for multiplying and dividing with positive whole number powers. <p>➤ Mathswatch clips 38, 66, 67.</p>		<p>Objective assessments:</p> <p>Completion of exam style questions on squares, cubes and roots and rules of indices.</p>	<p>Homework:</p> <p>Suitable Mathswatch questions set by teacher on squares, cubes and roots and rules of indices.</p>
<p>Week 5 Learning Objectives:</p> <ul style="list-style-type: none"> Revision of course to date. Completion of Summative Assessment in examination conditions. Bespoke feedback from SA. Topic improvement tasks. 	 <div style="background-color: pink; padding: 5px; display: inline-block;">Summative assessment and feedback.</div>	<p>Objective assessments:</p> <p>Completion of summative assessment.</p>	<p>Homework:</p> <p>Suitable Mathswatch questions set by teacher.</p>
<p>Week 6 Learning Objectives: <u>Numeracy and Mathematics</u></p> <ul style="list-style-type: none"> Use the order of operations (BIDMAS). Understand the order in which a calculator does calculations. Use a calculator efficiently. Use a calculator to investigate and interpret numbers written in standard form. <p>➤ Mathswatch clips 63.</p>		<p>Objective assessments:</p> <p>Completion of exam style questions on standard form.</p>	<p>Homework:</p> <p>Suitable Mathswatch questions set by teacher on standard form.</p>
<p>Week 7 Learning Objectives:</p> <ul style="list-style-type: none"> Use the conventions of algebra. Collect like terms. Expand single brackets. <p>➤ Mathswatch clips 24, 83.</p>		<p>Objective assessments:</p> <p>Completion of exam style questions on collecting like terms and expanding brackets.</p>	<p>Homework:</p> <p>Suitable Mathswatch questions set by teacher on collecting like terms and expanding brackets.</p>