

SUBJECT Maths and Numeracy

Learning Plan 2

Set: Year 10 Foundation Tier

Knowledge Focus

Statistics: Scatter diagrams, probability.

Algebra: Solving equations.



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.

Skills, Knowledge and Understanding to be developed:

- Draw and use scatter diagrams.
- Understand correlation.
- Write and solve equations using the balance method.
- Estimating and calculating the probabilities of events.
- Understanding relative frequency.

Key Terms to be learned:

Algebra

Expression, equation, solve, unknown.

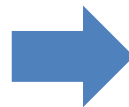
Statistics:

Scatter diagram, axes, scale, line of best fit, correlation, positive, negative, mutually exclusive, fair, outcome, event, probability, chance, likelihood, sample space, compound events, bar chart, impossible, certain, even chance, uncertainty, likely, unlikely, probability scale, experiment, venn diagram, risk, mutually exclusive, fair, outcome, event, probability, chance, likelihood, impossible, certain, trials, even chance, likely, unlikely, probability scale, relative frequency, experiment, theoretical probability, estimate, bias.

Week 1 Learning Objectives:

Numeracy and Mathematics

- Read, interpret and draw conclusions from scatter diagrams for paired variables recognising that correlation does not imply causality and know the types of correlation.
 - Construct scatter diagrams and draw a line of best fit by eye.
 - Find patterns and exceptions on scatter diagrams.
 - Identify mistakes on graphs, charts and diagrams and critique those that are used by the media in a misleading way.
- [Mathswatch clip 119.](#)



Objective assessments:

Completion of exam style questions on scatter diagrams.

Homework:

Suitable Mathswatch questions set by teacher on scatter diagrams.

Weeks 2 and 3 Learning Objectives:

Numeracy and Mathematics

- Build equations where the unknown appears only once.
- Build equations where the unknown appears twice.
- Solve equations where the unknown appears only once.
- Solve equations where the unknown appears twice.
- Build and solve equations to find the solution to real life problems.



Objective assessments:

Completion of exam style questions on equations.

Homework:

Suitable Mathswatch questions set by teacher on equations.

Additional Content for Mathematics only

- Build and solve equations in purely mathematical contexts.
- [Mathswatch clips 24, 85, 139a.](#)

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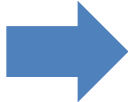
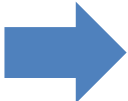
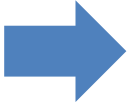


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<p>Week 4 Learning Objectives: <u>Numeracy and Maths</u></p> <ul style="list-style-type: none">Understand the notions of uncertainty and risk and use the language of probability to place events on a probability scale written in words. <p><u>Additional content for Maths</u></p> <ul style="list-style-type: none">Place probabilities stated as fractions, percentages or decimals on a probability scale from 0 to 1.Calculate theoretical probabilities based on equally like outcomes.Calculate theoretical probabilities using the fact that the probability of an event not occurring is one minus the probability that it occurs.State all the outcomes from two events using a list or table (sample space).Calculate simple probabilities of two events from Venn diagrams and other diagrammatical representations e.g. bar charts. <p>➤ Mathswatch clips 9, 54, 55, 56, 116.</p>	 <p>Objective assessments:</p> <p>Completion of exam style questions on probability.</p>	<p>Homework:</p> <p>Suitable Mathswatch questions set by teacher on theoretical probability.</p>
<p>Week 5 Learning Objectives: <u>Additional content for Maths</u></p> <ul style="list-style-type: none">Conduct experiments and surveys to compare outcomes and identify bias.Write estimates of experimental probability/relative frequencies (in decimals) and know that you need a large number of trials (100+) to get a good estimate.Compare estimated probabilities/relative frequencies from experimental evidence with theoretical probabilities. <p>➤ Mathswatch clip 117.</p>	 <p>Objective assessments:</p> <p>Completion of exam style questions on relative frequency.</p>	<p>Homework:</p> <p>Suitable Mathswatch questions set by teacher on relative frequency.</p>
<p>Weeks 6 and 7 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.	 <p>Summative assessment and feedback.</p> <p>Objective assessments:</p> <p>Completion of summative assessment.</p>	<p>Homework:</p> <p>Suitable Mathswatch questions set by teacher.</p>