

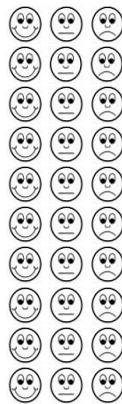



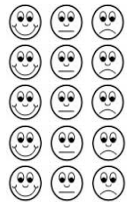
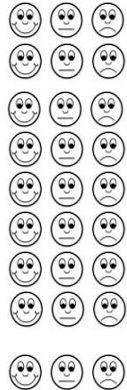
## Barrhead High School Mathematics Department

















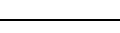








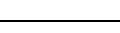

### National 3 Applications of Mathematics

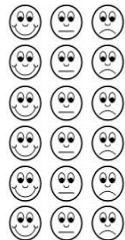
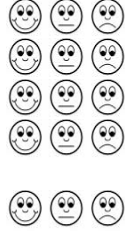

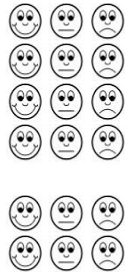























#### Learning Intentions & Success Criteria: Assessing My Progress

Manage Money and Data			
Topic	Learning Intention	Success Criteria	I understand this...
Income and Expenditure	<ul style="list-style-type: none"><li>Pupils will be able to calculate income.</li><li>Pupils will be able to calculate expenditure</li></ul>	<ul style="list-style-type: none"><li>I can calculate basic pay</li><li>I can calculate overtime</li><li>I can calculate deductions</li><li>I can calculate gross pay</li><li>I can calculate net pay</li><li>I can calculate a bonus</li><li>I can calculate VAT</li><li>I understand the terms income and expenditure</li><li>I can calculate expenditure</li><li>I can apply my knowledge in real life applications</li></ul>	
Budgeting	<ul style="list-style-type: none"><li>Pupils will be able to budget</li></ul>	<ul style="list-style-type: none"><li>I understand what is meant by the term budget</li><li>I can prepare a budget</li><li>I can apply my knowledge in real life applications</li></ul>	

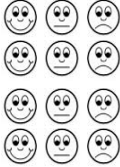
Best Deal	<ul style="list-style-type: none"> <li>Pupils will be able to decide on which deal is a better one.</li> </ul>	<ul style="list-style-type: none"> <li>I can find a discounted price</li> <li>I can find a sale price of an item</li> <li>I can decide which buy is better</li> <li>I can explain my answer by comparing my solutions</li> <li>I can apply my knowledge in real life applications</li> </ul>	
Statistics	<ul style="list-style-type: none"> <li>Pupils will be able to organise data and display this information in the most appropriate table/graph.</li> <li>Pupils will be able to draw conclusions from their statistical graphs</li> </ul>	<ul style="list-style-type: none"> <li>I can organise data into a tally table</li> <li>I can use a tally table to make a frequency table</li> <li>I can calculate simple totals</li> <li>I can calculate simple averages</li> <li>I can display information as a pictograph</li> <li>I can display information using a bar graph</li> <li>I can display information as a line graph</li> <li>I can draw conclusion and answer questions based on my statistical graphs</li> <li>I can apply my knowledge in real life applications</li> </ul>	

Shape Space and Measure			
Topic	Learning Intention	Success Criteria	I understand this...
Time	<ul style="list-style-type: none"> <li>Pupils will be able to interpret and complete a timetable</li> <li>Pupils will be able to use 12 hour and 24 hour time</li> </ul>	<ul style="list-style-type: none"> <li>I can convert 12 hour time to 24 hour time</li> <li>I can convert 24 hour time to 12 hour time</li> <li>I can calculate a time interval</li> <li>I can interpret a timetable</li> <li>I can use my knowledge of time to fill in missing information on a timetable</li> <li>I can apply my knowledge in real life applications</li> </ul>	        
Shape	<ul style="list-style-type: none"> <li>Pupils will be able to calculate the area and perimeter of given shapes.</li> </ul>	<ul style="list-style-type: none"> <li>I can find the area of a simple shape by counting boxes.</li> <li>I can use the correct formulae to find the area of a rectangle or triangle.</li> <li>I know a variety of units of measure and understand which are the best to use</li> <li>I can find the perimeter of a simple shape.</li> <li>I can apply my knowledge in real life applications</li> </ul>	        
Volume	<ul style="list-style-type: none"> <li>Pupils will be able to calculate the volume of a basic 3D shape.</li> </ul>	<ul style="list-style-type: none"> <li>I can find the volume of a shape by counting cubes.</li> <li>I understand the formula used to find the volume of a cuboid.</li> <li>I can find the volume of a cuboid.</li> <li>I understand what units should be used for volume.</li> <li>I can apply my knowledge in real life applications</li> </ul>	        

Directions	<ul style="list-style-type: none"> <li>Pupils will be able to follow given directions.</li> <li>Pupils will be able to give directions.</li> </ul>	<ul style="list-style-type: none"> <li>I understand left, right, up down.</li> <li>I understand north, south, east west.</li> <li>I can follow a simple route from directions.</li> <li>I can give directions to follow a route.</li> <li>I can use the directions to draw a line on a given map.</li> <li>I can apply my knowledge in real life applications</li> </ul>	
Measurement	<ul style="list-style-type: none"> <li>Pupils will be able to measure the length of a given line.</li> <li>Pupils will be able to convert measurements accordingly.</li> </ul>	<ul style="list-style-type: none"> <li>I can measure this line using a given measurement</li> <li>I understand what units I am measuring in.</li> <li>I can convert between units of measure.</li> <li>I understand what units to use when converting from one measurement to another.</li> <li>I can apply my knowledge in real life applications</li> </ul>	
Scale Factor	<ul style="list-style-type: none"> <li>Pupils will be able to enlarge or reduce a given shape</li> </ul>	<ul style="list-style-type: none"> <li>I can enlarge a shape using a basic scale factor</li> <li>I can reduce a shape using a basic scale factor</li> <li>I can apply my knowledge in real life applications</li> </ul>	
Patterns	<ul style="list-style-type: none"> <li>Pupils will be able to draw the next sequence in a given pattern.</li> <li>Pupils will be able to complete a given table about a pattern</li> </ul>	<ul style="list-style-type: none"> <li>I can complete or repeat a pattern involving shape.</li> <li>I can complete or repeat a pattern involving numbers</li> <li>I can complete a sequence by drawing the next pattern.</li> <li>I can use the diagrams in a sequence to complete a given table.</li> <li>I can design my own pattern involving shape/numbers.</li> <li>I can apply my knowledge in real life applications</li> </ul>	

Numeracy			
Topic	Learning Intention	Success Criteria	I understand this...
Calculations (permeates entire National 3 Lifeskills course)	<ul style="list-style-type: none"> <li>Pupils will understand the importance of place value and how to use it</li> <li>Pupils will be able to carry out a range of calculations</li> <li>Pupils will be able to carry out a range of calculations in context</li> <li>Pupils will be able to round numbers to a suitable degree of accuracy</li> <li>Pupils will be able to use fractions to assist with calculations</li> <li>Pupils will be able to use percentages to assist with calculations</li> </ul>	<ul style="list-style-type: none"> <li>I can express a number in words</li> <li>I can express a number as digits</li> <li>I can add and subtract whole numbers</li> <li>I can multiply and divide whole numbers by a single digit</li> <li>I can carry out these operation in context</li> <li>I can add and subtract decimal numbers</li> <li>I can multiply and divide decimal numbers by a single digit</li> <li>I can carry out these operation in context</li> <li>I can round numbers to the nearest 10, 100, 1000</li> <li>I can round numbers to the nearest whole number</li> <li>I can round numbers to one decimal place</li> <li>I can round numbers to two decimal places</li> <li>I understand how to write a fraction</li> <li>I can simplify a fraction</li> <li>I can make an equivalent fraction</li> <li>I can calculate a fraction of a quantity</li> <li>I can change from a percentage to a fraction</li> <li>I can calculate a percentage of a quantity without a calculator</li> <li>I can calculate a percentage of a quantity with a calculator</li> <li>I can apply my knowledge in real life applications</li> </ul>	                    



<p>Probability</p>	<ul style="list-style-type: none"> <li>• Pupils will be able to apply probability to real life situations.</li> </ul>	<ul style="list-style-type: none"> <li>• I can use a basic probability scale.</li> <li>• I can comment on the likelihood of an event happening.</li> <li>• I can calculate the probability of an event happening.</li> <li>• I can apply my knowledge in real life applications</li> </ul>	
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