

## Medium term planning - unit outline.

Preparation for Entry 3 and Level 1 Edexcel ALAN (adult literacy and numeracy) tests



YEAR: 14-2	OAKFIELD SCHOOL AND COLLEGE TERM: Spring 1	TITLE: Measure, shape and space
------------	-----------------------------------------------	---------------------------------

<p><b><u>MAIN AIMS - Knowledge, Skills and Understanding</u></b>          To be able to find the perimeter of simple shapes;          Find the area of simple and compound shapes          Find the volume of cuboids</p>	<p><b><u>KEY VOCABULARY</u></b>          Area, perimeter, square, rectangle, triangle, cube, cuboid.          Centimetre, metre, centimetre<sup>2</sup>, metre<sup>2</sup>, centimetre<sup>3</sup>, metre<sup>3</sup></p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

REF	Lesson no	LEARNING OBJECTIVES	ACTIVITIES / RESOURCES	STRATEGIES for DIFFERENTIATION STRATEGIES to promote Lit, Num, ICT ADDITIONAL RESOURCES	DEPLOYMENT OF SUPPORT STAFF TO INCLUDE: Individuals/Groups/Skills/ Concepts to be supported
MSS2/ E3.2  MSS1/ L1.8  MSS1/ L1.5	1	To understand that the perimeter of a shape is the total distance all the way round the outside of the pitch / yard	<p>Starter: PPT: how far did they walk? Students to watch PPT and calculate how far everyone walked round the shape.</p> <p>Main: students to record in book definition of perimeter and how to calculate. Then to calculate perimeter of simple shapes.</p> <p>Plenary: calculate the perimeter of the football pitch.</p> <p>Read Write Plus 'Garden makeover' worksheets  <a href="http://rwp.excellencegateway.org.uk/readwriteplus/bank/num%201%20unit%204.pdf">http://rwp.excellencegateway.org.uk/readwriteplus/bank/num%201%20unit%204.pdf</a></p>	<p>Resources: PPT, perimeter questions.</p> <p>Literacy: mathematical language, keywords on board for reinforcement</p> <p>ICT: use of Smartboard and PPT reinforce concept</p> <p>Differentiation: support offered, difficulty of questions and size of numbers in questions depending on individual ability to add numbers</p> <p>Assessment: Practice tests online  <a href="http://www.edexcel.com/quals/skillsforlife/alan/entry/Pages/default.aspx">http://www.edexcel.com/quals/skillsforlife/alan/entry/Pages/default.aspx</a> E3 as easy intro!</p>	<p>H &amp; M to be supported with writing where appropriate</p> <p>J, S to be supported remaining on task</p> <p>P &amp; K to be supported with understanding of concept and addition.</p>

## Medium term planning - unit outline.

### Preparation for Entry 3 and Level 1 Edexcel ALAN (adult literacy and numeracy) tests



REF	Lesson no	LEARNING OBJECTIVES	ACTIVITIES / RESOURCES	STRATEGIES for DIFFERENTIATION STRATEGIES to promote Lit, Num, ICT ADDITIONAL RESOURCES	DEPLOYMENT OF SUPPORT STAFF TO INCLUDE: Individuals/Groups/Skills/ Concepts to be supported
MSS2/ E3.1  MSS2/ L1.1  MSS1/ L1.8  MSS1/ L2.7  MSS1/ L1.4	2	To be able to calculate perimeter of simple shapes	Use of sensory room.  Starter: look around room at different shapes we could calculate the perimeter of – cushion by bubble tube, door, screen, cupboard etc. Using tape measures, in pairs students to find perimeter of one of these.  Main: using fluorescent tape, students to create straight sided shapes on floor to measure perimeter of.  Plenary: which units should we use for the things we have measured today? Who found this easy / difficult?	Resources: sensory room, tape measures, fluorescent tape  Differentiation – pairing of students to enable most appropriate support for activity  Assessment: teacher assessment of work in lesson, self assessment through thumbs up/down as to how easy this was.	J & S to be supported remaining on task;  Pairs: own choice
MSS1/ L1.8  MSS1/ L1.4  MSS1/ L1.5	3	To be able to calculate perimeter of simple shapes.	Starter: students to go outside with trundle wheels and measure yard.  One student to push trundle wheel, the other to record the distance (number of clicks and final reading) for each side. Main: return into college.	Resources: PPT, perimeter questions  Literacy: mathematical language, keywords on board for reinforcement  ICT: use of smartboard and PPT to reinforce concept	Pairs: own choice

## Medium term planning - unit outline.

### Preparation for Entry 3 and Level 1 Edexcel ALAN (adult literacy and numeracy) tests



REF	Lesson no	LEARNING OBJECTIVES	ACTIVITIES / RESOURCES	STRATEGIES for DIFFERENTIATION STRATEGIES to promote Lit, Num, ICT ADDITIONAL RESOURCES	DEPLOYMENT OF SUPPORT STAFF TO INCLUDE: Individuals/Groups/Skills/ Concepts to be supported
			<p>Students to write in their books the measurements they took of the yard and calculate the perimeter of it.</p> <p>Once this is done, learners complete same task for the hall.</p> <p>Plenary: what units should we use for these measurement?</p>	<p>Differentiation: support offered, difficulty of questions and size of numbers in questions depending on individual ability to add numbers</p> <p>Assessment: teacher / TA assessment of work completed in class.</p>	
MSS1/L1.8  MSS1/L2.7	4	To be able to calculate perimeter of simple shapes.	<p>Starter: quick quiz – match the perimeter to the shape.</p> <p>Main: students to practice individually finding the perimeter of simple shapes.</p> <p>Plenary – if we know the perimeter of a shape and the length of some of the sides, can we find the length of a side? Use question from PPT</p>	<p>Resources: PPT, perimeter qs.</p> <p>Literacy: mathematical language, keywords on board for reinforcement</p> <p>ICT: use of smartboard and PPT to reinforce concept</p> <p>Differentiation: support offered, difficulty of questions and size of numbers in questions depending on individual ability to add numbers</p> <p>Assessment: <a href="http://www.edexcel.com/quals/skillsforlife/alan/levels/Pages/default.aspx">http://www.edexcel.com/quals/skillsforlife/alan/levels/Pages/default.aspx</a></p>	<p>M &amp; K to be supported with writing where appropriate.</p> <p>J to be supported remaining on task</p> <p>C to be supported with understanding of concept and addition.</p>

## Medium term planning - unit outline.

### Preparation for Entry 3 and Level 1 Edexcel ALAN (adult literacy and numeracy) tests



REF	Lesson no	LEARNING OBJECTIVES	ACTIVITIES / RESOURCES	STRATEGIES for DIFFERENTIATION STRATEGIES to promote Lit, Num, ICT ADDITIONAL RESOURCES	DEPLOYMENT OF SUPPORT STAFF TO INCLUDE: Individuals/Groups/Skills/ Concepts to be supported
MSS1/ L1.9  MSS1/ L2.8	5	To be able to calculate area of simple shapes.	<p>Starter: ask students for a definition of area.</p> <p>Main: explain how we find area inside a shape and what this means</p> <p>Explain units needed and importance of their use. Recap use of tables square and reinforce importance of using tables</p> <p>Students to practise individually finding areas of given shapes.</p>	<p>Resources: PPT, area questions Literacy: mathematical language, keywords on board for reinforcement</p> <p>ICT: use of smartboard and PPT to reinforce concept</p> <p>Differentiation: support offered, difficulty of questions and size of numbers in questions depending on individual ability to multiply numbers</p> <p>Assessment: teacher Assessment: teacher online tests (see link above in lesson 4)</p>	<p>M &amp; K to be supported with writing where appropriate;</p> <p>J &amp; S to be supported remaining on task;</p> <p>C to be supported with understanding of concept and calculations.</p>
MSS1/ L1.9  MSS1/ L2.8  MSS2/ L1.2	6	To be able to calculate area of simple shapes.	<p>Starter: quick tables quiz.</p> <p>Main: show PPT pic of 2 different rectangles with same area – explain that even though they have different side lengths they have the same area.</p> <p>Students to work individually with squared paper drawing rectangles of different dimensions but with same area. (area: 24, 40, 9, 16, 32</p>	<p>Resources: PPT, area questions</p> <p>Literacy: mathematical language, keywords on board for reinforcement ICT: use of smartboard and PPT to reinforce concept</p> <p>Differentiation: support offered, difficulty of questions and size of numbers in questions depending on individual ability to multiply numbers Assessment: teacher online tests (see link above in lesson 4)</p>	<p>M &amp; K to be supported with writing where appropriate</p> <p>J &amp; S to be supported remaining on task</p> <p>C to be supported with understanding of concept &amp; calculations.</p>

## Medium term planning - unit outline.

### Preparation for Entry 3 and Level 1 Edexcel ALAN (adult literacy and numeracy) tests



REF	Lesson no	LEARNING OBJECTIVES	ACTIVITIES / RESOURCES	STRATEGIES for DIFFERENTIATION STRATEGIES to promote Lit, Num, ICT ADDITIONAL RESOURCES	DEPLOYMENT OF SUPPORT STAFF TO INCLUDE: Individuals/Groups/Skills/ Concepts to be supported
MSS1/ L1.10	7	To be able to calculate volume of simple 3D shapes.	<p>Starter: quick quiz – match area to shape.</p> <p>Main: using different sizes of boxes, students to work in pairs to measure and calculate volume</p> <p>Plenary: ?</p>	<p>Resources: boxes, rulers</p> <p>Literacy: mathematical language, keywords on board for reinforcement</p> <p>ICT: use of smartboard and PPT to reinforce concept</p> <p>Differentiation: support offered, difficulty of questions and size of numbers in questions depending on individual ability to multiply numbers</p> <p>Assessment: teacher/TA assessment of work completed in class.</p>	<p>M &amp; K to be supported with writing where appropriate;</p> <p>J &amp; S to be supported remaining on task;</p> <p>C to be supported with understanding of concept and calculations.</p>
MSS1/ L1.9  MSS1/ L2.8	8	To be able to calculate area of compound shapes.	<p>Starter: PPT. show compound shape and ask how we could find its area. Go through example of splitting into rectangles</p> <p>Main: students to work individually finding areas of compound shapes.</p> <p>Plenary: self assessment sheet completion for area and perimeter</p>	<p>Resources: PPT, worksheet, self-assess sheet</p> <p>Literacy: mathematical language, keywords on board for reinforcement</p> <p>ICT: use of smartboard and PPT to reinforce concept</p> <p>Differentiation: support offered, difficulty of questions and size of numbers in questions depending on individual ability to multiply numbers</p>	<p>M &amp; K to be supported with writing where appropriate;</p> <p>J &amp; P to be supported remaining on task;</p> <p>C to be supported with understanding of concept and calculations.</p>

## Medium term planning - unit outline.

Preparation for Entry 3 and Level 1 Edexcel ALAN (adult literacy and numeracy) tests

### Main curriculum links covered

**MSS2/E3.1** sort 2-D and 3-D shapes to solve practical problems using properties (e.g. lines of symmetry, side length, angles)

**MSS2/E3.2** Identify the perimeter of simple shapes, e.g. rectangles, triangles

**MSS1/L1.4** Read, estimate, measure and compare length, weight, capacity and temperature common units and instruments

**MSS1/L1.5** Read, estimate, measure and compare distance

**MSS1/L1.8** Work out the perimeter of simple shapes, e.g. rectangle, equilateral triangle

**MSS1/L1.9** Work out the area of rectangles

**MSS1/L1.10** Work out simple volume (e.g. cuboids)

**MSS2/L1.1** solve problems using the mathematical properties of regular 2-D shapes

**MSS2/L1.2** draw 2-D shapes in different orientations using grids (e.g. in diagrams or plans)

**MSS1/L2.7** Understand and use given formulae for finding areas and perimeters of regular shapes (e.g. rectangular and circular surfaces)

**MSS1/L2.8** Understand and use given formulae for finding areas and perimeters of composite shapes (e.g. non rectangular rooms or plots of land)