

Guidelines for the use of 'HL3.2 - Cake slice angles'

Activity title:	Cake slice angles
Curriculum area:	Maths
NC objectives:	Maths Ma2 1c, Ma3 4b, 4c
Main learning objective:	Pupils understand what right angles, acute angles, and obtuse angles are, using protractors to find the angles accurately.

Timing	Lesson plan ideas, activities and resource sheets
INTRODUCTION 20 minutes	<ul style="list-style-type: none"> Tell pupils that they will be learning how to predict angles and measure them accurately. Show the class a right angle on the board and then ask pupils to identify the same angle in the classroom. Introduce the words and concepts of 'Obtuse' (larger than a right angle) and 'Acute' (smaller than a right angle) and explain their meanings. Draw angles on the board and identify them correctly using the new vocabulary. If access to <i>Primary Games Volume 2</i> is available, use 'Banana Hunt' and play the game, guessing the angles.
MAIN ACTIVITY 30 minutes	<ul style="list-style-type: none"> Issue the '3.2a Working out the angle of the slice of cake' worksheet and explain the Main Activity. Pupils should use a protractor to measure the angles of each slice of cake (marked 'slice'). Zero degrees is at the top of the cake. Write the angles inside the slice, as with the example, or clearly label the angle that has been measured.
PLENARY 10 minutes	<ul style="list-style-type: none"> Go through the answers to the angles as a class and sort out any problems. Choose a selection of children to be blindfolded at the front of the class. The rest of the children must guide them around the room using angles as instructions for turning and stating the number of steps to move forward.

Suggested extension activities or cross curricular links:

- Once the pupils have completed the initial exercise, ask them to measure the remaining slice angle.
- Ask the pupils to estimate the slices into fractions and decimals.