

Lesson Title: Messy Maths	Key Stage: One and Two
Curriculum Links: KS1: Ma2 1e, 1f, 2a, 3a, 5a, Ma3 1a, 1b, 1d, 2a, 2b, 2c, 4a, 4c. KS2: Ma2 1a, 1c, 1h, 1i, 4a, 4b, 4c Ma3 1a, 2b, 2c, 4a, 4b, 4e, Ma4 1a, 1g, 2a, 2b, 2c, 2f,	
Key Words: average, weight, grouping sorting, measuring, capacity, area, calculations,	
Key Questions: <ul style="list-style-type: none"> • What is bar-chart, pictogram, line-graph, Pie-chart? • Which pile of waste is the heaviest/lightest? • Can you find a prism, cuboid, cube, and cylinder? 	
Objectives <ul style="list-style-type: none"> • Represent data using graphs and diagrams. • Describe and recognise 3D shapes. • Estimate, measure and weigh objects; choose and use simple measuring instruments. 	
Possible Activities <u>Starter:</u> Bin bag sort: Empty a large bag of clean rubbish on the floor. Put children into 4 groups. Each group to have 4 cards – reuse, recycle, compost and landfill (Resource A). Ask children to explain what each word means. Children then to separate the rubbish pile by choosing items to put on the 4 cards. This can be played as a relay race or simply by children taking turns to separate the waste. Once the waste is sorted the children should count the piles on each card. Make a large class tally chart of the results. <u>Main:</u> Using the tally chart children to make graphs of the results. (Bar charts, pie charts, pictograms, Line graph) See resource B. Once complete the children can use the data to calculate the most popular form of disposal, and the least popular. Weigh each of the 4 piles to calculate the heaviest pile. Can children record the weight of each of the piles on the worksheet? Which pile is heaviest? Which is lightest? Can they use a different form of graph to record this data? Children to divide waste into different 3D shapes: rectangles, cylinders, cubes, prisms, again children can make a graph with this data. <u>Plenary:</u> KS 2 children to answer questions below; How much is the total weight of rubbish? If we threw out a bag of rubbish this size every week for a month how much would it weigh in total? How much waste in a year would we throw out? KS1 Children to answer questions below; Looking at your graph, which pile had the most rubbish? Which pile has the least rubbish? Can you find a cuboid and hold it up? Can you find me a prism? Can you find me a cube? (Recording sheet B may be used as an extension activity)	
Extension Activities: Recording sheet B. Looking at the different materials, can you separate the piles into materials and record the different amounts in each pile on a graph?	
Cross Curricular Links: Science – materials.	Points to note: Check that the materials in the bin are clean and have no sharp edges.
Homework ideas: Check out your rubbish at home, keep a tally of the waste thrown away over a week, which disposal method did you use? Create a graph of your results.	
Resources: Resource A and B, Large bag of rubbish, Large sheet of paper and pen, Weighing scales of different styles, tape measures and rulers, Pencils and colouring pencils.	