

Some examples of language, literacy and numeracy use in *Engineering*

Literacy/ESOL

Speaking and Listening	Reading	Writing
<ul style="list-style-type: none"> Listening to the views of other professionals in a project team meeting such as main and sub contractors, surveyor or client and extracting specific details Discussing and analysing an engineering problem with others in order to suggest practical solutions to present to the whole group Speaking to a salesperson to find out key technical information about a new machine 	<ul style="list-style-type: none"> Reading a text which highlights environmental problems around an industrial waste proposal and identifying the main points of view Reading and following instructions for using a machine e.g. how to use a precision cutting tool Researching an engineering topic related to energy efficiency, using the internet or other resources, to gather background materials 	<ul style="list-style-type: none"> Researching and writing a report on material usage contrasting the advantages and disadvantage of structural steel versus concrete Writing a review article on the most recent technological advances and ideas for home insulation materials Preparing a report on a new machine to influence the purchase decision of a department

Numeracy

Number	Measures, shape and space	Handling data
<ul style="list-style-type: none"> Using formulae for voltage calculations using Ohm's Law ($I = V/R$), current = voltage divided by resistance, Using conversion charts to convert between different measure / currency systems when costing a job Researching and comparing the costs of 2 similar local engineering projects 	<ul style="list-style-type: none"> Providing simple plans and scale drawings, using different scales, e.g. 1:20, 1:10, 1:50 for calculations Working out actual measurements, e.g. tolerances, wastage rates as % Using computer software to create 3-D designs / plans from specifications 	<ul style="list-style-type: none"> Looking at graphical representations of discrete and continuous data e.g. conversion graphs to convert inches to millimetres Looking at the test results for the materials that you have been given and comparing and contrasting the analytical data in order to make an informed decision