

## I. Learning Targets, Learning Objectives and Notes on Teaching

### A. Learning Targets

Key Stage 3 (S1 - S3)		Key Stage 4 (S4 - S5)
<p>To develop students an ever-improving capability to</p> <ul style="list-style-type: none"> <li>• understand the nature of measurement and be aware of the issues about precision and accuracy;</li> <li>• apply a variety of techniques, tools and formulas for measurements and solving mensuration problems;</li> <li>• explore and visualize geometric properties of 2-dimensional and 3-dimensional objects intuitively;</li> <li>• use inductive reasoning, deductive reasoning and analytic approach to study the properties of 2-dimensional rectilinear shapes;</li> <li>• formulate and write simple geometric proofs involving 2-dimensional rectilinear shapes with appropriate symbols, terminology and reasons;</li> <li>• inquire, describe and represent geometric knowledge in 2-dimensional figures using numeric and algebraic relations;</li> <li>• inquire geometric knowledge in 2-dimensional space using trigonometric relations; and</li> <li>• interconnect the knowledge and skills of the Measures, Shape and Space Dimension and other Learning Dimensions, and apply them to formulate and solve 2-dimensional problems.</li> </ul>		<p>To develop students an ever-improving capability to</p> <ul style="list-style-type: none"> <li>• use and select inductive reasoning, deductive reasoning or analytic approach to study the properties of 2-dimensional shapes;</li> <li>• formulate and write geometric proofs involving 2-dimensional shapes with appropriate symbols, terminology and reasons;</li> <li>• inquire, describe and represent geometric knowledge in 2-dimensional space using algebraic relations;</li> <li>• inquire, describe and represent geometric knowledge in 2-dimensional and 3-dimensional space using trigonometric functions; and</li> <li>• interconnect the knowledge and skills of the Measures, Shape and Space Dimension and other Learning Dimensions, and apply them to formulate and solve 2-dimensional and 3-dimensional problems with various strategies.</li> </ul>