GRADE 4 Shape and Space Specific Outcomes	Key Concepts in Measurement underpinning Curriculum Outcomes from FSIM: Measurement Resource Book *One*	Sample Diagnostic Tasks and Activities	Sample Learning Tasks Selected from FSIM: Measurement Resource Books *One* (link to online document)	Math Station Ideas:
SS4.1 Demonstrate an understanding of time by: • reading and recording time using digital and analog clocks (including 24 hour clocks) • reading and recording calendar dates in a variety of formats.	Understand Units KU4: • The instrument we choose to represent our unit should relate well to the attribute to be measured and be easy to repeat to match the object or event to be measured. Understand Units KU6: • Our choice of attribute and unit depends on what we are trying to measure and why. Direct Measure KU6: • We can judge and measure time using both natural cyclical changes and special techniques and tools which people have developed.		Measurement, Book One, p. 58-59 • Units of Time Measurement, Book One, p. 75 • Units of Time Measurement, Book One, p. 174 • Analog and Digital Clocks • Clocks and Stopwatches • Calendars • Phases of the Moon	"Which Takes Longer?" p. 243 TS-CM Time (online interactive) Time Games (online interactive) What's the Time? Board Game (link to printable) Elapsed Time: At the Movies (link to printable)

GRADE 4 Shape and Space Specific Outcomes	Key Concepts in Measurement underpinning Curriculum Outcomes from FSIM: Measurement Resource Book *One*	Sample Diagnostic Tasks and Activities	Sample Learning Tasks Selected from FSIM: Measurement Resource Books *One* (link to online document) Measurement Resource Book *Two* (link to online document)	Math Station Ideas:
SS4.2 Demonstrate an understanding of area of regular and irregular 2-D shapes by: • recognizing that area is measured in square units • selecting and justifying referents for the units cm 2 or m 2 • estimating area by using referents for cm 2 or m 2 • determining and recording area (cm 2 or m 2) • constructing different rectangles for a given area (cm2 or m 2) in order to demonstrate that many different rectangles may have the same area.	Understand Units KU1: • We can compare objects or events by how much of a particular attribute each has. Different attributes may result in different orders. Understand Units KU3: • To measure something means to say how much of a particular attribute it has. We measure by choosing a unit and working out how many of the unit it takes to match the object or event. Understand Units KU4: • The instrument we choose to represent our unit should relate well to the attribute to be measured and be easy to repeat to match the object or event to be measured. Understand Units KU5: • Measurements of continuous quantities are always approximate. Measurements can be made more accurate		Measurement, Book *One*, p. 27,29 • Area • Comparing Polygons • Perimeter and Area Measurement, Book *One*, p. 44,46 • Hungry Cow • Garden Plots Measurement, Book *One*, p. 59 • Garden Plots Measurement, Book *One*, p. 67 • Hungry Cow	Party Designer (online interactive) "Guess the Unit" p. 318 TS-CM 3-5 "Tangram Areas" p. 325 TS-CM 3-5 "Cover and Compare" p. 326 TS-CM 3-5 "Rectangle Comparison – Square Units" p. 327 TS-CM 3-5 "Fixed Areas" p. 328 TS-CM 3-5

	by choosing smaller units, subdividing units, and using other strategies. Indirect Measure KU1: • For certain types of shapes we can describe the relationship between the lengths of their edges and their perimeters, areas, and volumes. Estimate KU2: • We can improve our estimates by getting to know the size of common units and by practising judging the size of objects and events.		Measurement, Book *Two,* p. 29-35 • Covering a Rectangle • Covering a Rectangle (2) • Incomplete Grids • Oil Spills • Which Pasture Is Bigger? • Perimeter or Area? Measurement, Book *Two,* p. 99-101 • A Square Metre • A Square Centimetre	

GRADE 4 Shape and Space Specific Outcomes	Key Concepts in Measurement underpinning Curriculum Outcomes from FSIM: Geometry and Space Resource Book	Sample Diagnostic Tasks and Activities	Sample Learning Tasks Selected from FSIM: Geometry and Space Resource Book (link to online document)	Math Station Ideas:
SS4.3 Demonstrate an understanding of rectangular and triangular prisms by: • identifying common attributes • comparing • constructing models.	Represent Shape KU1: • When we copy and make figures and objects, we need to think about how the whole thing looks and about how the parts relate to each other and to the whole. Represent Shape KU2: • The net of an object has to have the same component parts as the object, and the parts have to be in the correct relationship to each other. Represent Shape KU3: • To understand drawings of objects, we need to combine what we can actually see with what we think is there. Special drawing techniques emphasize different aspects of an object. Reason Geometrically KU1: • Things can be the same in some ways and different in other ways. When we classify, we sort things into groups that are the same in		Geometry and Space, pages 74, 78-79 • Copy a Prism • Make a Ramp • Function of Shapes Geometry and Space, pages 88 - 90 • Making Nets • Matching Nets • Matching Nets Again • Tracing • Predicting 3-D from 2-D Geometry and Space, page 103 • Skeleton Diagram Geometry and Space, page 179 • Sorting Objects	Oblong (online interactive) Air Nets (online) Nets of Polyhedra (link to printables)

	specified ways. Reason Geometrically KU2: • Thinking about shape can help us to understand the way things work and fit together. Reason Geometrically KU4: • People have developed useful ways to classify shapes. Knowing that a shape is one of the standard types can tell us a lot about it.		Geometry and Space, pages 190-192 • Bricks • Homes Geometry and Space, pages 215-217 • Choose a Shape • What Am I?	

GRADE 4 Shape and Space Specific Outcomes	Key Concepts in Measurement underpinning Curriculum Outcomes from FSIM: Geometry and Space Resource Book	Sample Diagnostic Tasks and Activities	Sample Learning Tasks Selected from FSIM: Geometry and Space Resource Book (link to online document)	Math Station Ideas:
SS4.4 Demonstrate an understanding of line symmetry by: • identifying symmetrical 2- D shapes • creating symmetrical 2- D shapes • drawing one or more lines of symmetry in a 2-D shape.	Represent Transformation KU1: • We can imagine how a thing will look after we move all or part of it or change our view of it. Represent Transformation KU4: • Symmetrical things have component parts which can be matched by rotating, reflecting, or translating.		Geometry and Space, pages 123-125 • Paper Folding 1 • Snowflakes • Paper Folding 2 Geometry and Space, pages 159-161 • Reflection Symmetry • Body Symmetry • Butterfly	Lines of Symmetry: Shape Game (online interactive) Symmetry Activity with Pattern Blocks (link) Hands on Math: Symmetry Art (link)