What is it that we want our students to know, understand, do and communicate KUDCO?					
Year Level: Two	**Semester:** Two	**Subject:** Mathematics	**Team Members:** Nathan Welsh, Kim Cleghorn, Christine Kane, Vanessa Brown, Georgina Dunne		
Essential Learning What is the essential learning? Describe in student friendly vocabulary.	**Example-Rigor** What does proficient student work look like? Provide an example and/or description.	**Prior Skills Needed** What prior knowledge, skills and/or vocabulary are needed for a student to master this essential learning?	**Common Assessments** What assessment/s will be used to measure student mastery?	**When taught?** When will this essential learning be taught?	**Application Skills** What will we do when students have already learned this essential learning?
I can skip count by 2's, 3's, 5's and 10's and describe, create, and continue patterns with numbers and identify missing elements	• Explain the final digit pattern for 2's, 3's, 5's, 10's • explain the rule for specific number patterns • use a 1-120 number chart to skip count by 3's • use a number chart or number line to show my skip counting in 2's, 5's, and 10's between zero and 1,000 from any starting point. • use a 1-120 number chart to explain skip counting by 2's, 5's and 10's. • Explore skip counting patterns on a calculator VOCAB: Pattern, rule, continue, missing, skip	• I can understand that when I skip count, I miss a regular amount of numbers out. • I can use a 1-100 number chart to show skip counting by 2's, 5's and 10's. • I can skip count forwards in 10's from any starting number to 100. • I can skip count forwards (orally) from zero in 2's, 5's and 10's up to 100. • I can count in correct order the numbers from 0-100.	Pre & Post CFA Quick checks Ongoing anecdotal notes against the learning targets.	Term 3, Week 1-3	Create number patterns with 2's, 3's, 5's, and 10's beyond their multiple of 10. I can explore skip counting by 4's, 6's, 8's and 9's

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	count, numbers, pattern, 2's, 5's, 10's, rows, columns				
I can represent and solve multiplication problems using given strategies of repeated addition, groups and arrays.	• understand 4x5 is 20 because there are four rows of five, so I can estimate that 4x6 will be larger than 20.  • match repeated addition number sentences with multiplication number sentences • use an array to solve a worded problem. • understand that an array is shown as columns and rows. • show my skip counting as arrays • Show a multiplication number sentence as skip counting. Vocab: sets, columns, rows, multiply, multiplication, by, arrays, rows, columns	• use repeated addition to solve a problem. • show my skip counting as equal groups and repeated addition • skip count in 2's, 5's and 10's starting from 0. • represent multiplication by grouping into sets.	Pre-assessment test designed by the team from Proficiency Scale Post- assessment test (same test given at the commencement of the unit)	Term 3, Weeks 1, 2, 3, 4, 5	• explain the commutative law (e.g. Turnaround facts, "I know 4x5 is 20 because there are four rows of five, and that it is the same as 5x4 or five rows of four.") • explain why I choose multiplication instead of repeated addition: "It is quicker and more accurate" • create a worded problem for an array • Explore real life scenarios that involve multiplication problems
I can recognise and represent division as sharing and grouping into equal sets to solve simple problems	I can share a collection into equal groups. I can use the part part whole model to explore division	I can share a collection of up to 20 into equal groups (one by one sharing). I can explain an array as groups of numbers.	Pre-assessment test designed by the team that is linked to the learning targets	Term 3, Weeks 5,6,7, 8, 9	I can divide a number and show numbers that are remainders. I can create my own worded problems.

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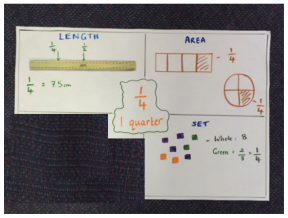
	I can share the same collection into different equal groups I can share a collection into equal groups to solve a worded problem. I can create a division number sentence Vocab: Set, Equal (fair) groups, fair groups, sharing, divide, separate		Post- assessment test (same test given at the end of the unit)		I can use **fact families/ 'three for free'** to explain the link between multiplication and division.
I can recognise and interpret fractions (½, ¼, ⅛) using the area, length and collection models.	I can recognise what is a ¼, ½, and ⅛ of a shape using the area model. I can recognise what is a ¼ a ½ and ⅛ of length I can express fractions as words, pictures and symbols I can use the halving strategy to create different fractions I can identify what is a ½, ¼ and ⅛ of a collection of 8.  Vocab: Fraction, Halves, quarters, eighths,	• I can identify what one half looks like for the area model. • I can identify what one quarter looks like for the area model. • I can recognise that something is a fraction because it is in equal parts.	Pre-assessment test designed by the team that is linked to the learning targets Post- assessment test (same test given at the end of the unit)	Term 4 Weeks 1,2,3,4, 5	• I can create fractions for more complex shapes using the area model (e.g. hexagon, octagon, etc). • I can divide collections greater than 8 into equal groups. • I can justify whether the representation of a fraction is accurate or inaccurate. • I can make a ½, ¼ and ⅛ using the length and area models

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	Partitioning, equal parts, denominator, numerator, whole.				
I can use informal measurement to compare and order shapes and objects based on capacity, mass and volume	I can estimate and check while making measurements using language like "greater than", "less than", "the same" I can order shapes and objects based on capacity, I can order shapes and objects based on mass I can order shapes and objects based on volume. I can use informal measurements to compare objects I can compare masses of objects using balance scales. I know that volume is the amount of space taken up by a 3D object. Vocabulary: mass, weight, hefting, measure, informal, objects, compare, estimate, heavier than, lighter than, greater than, less than, the same.	I can estimate compare and order what is heavier and lighter by hefting. I know that capacity is how much a container can hold. I know that mass is the quantity of matter in an object I know that the unit I am measuring with needs to remain the same size I can select different informal units to measure mass and capacity.	Ongoing anecdotal notes against the learning targets.		I can explore real life open ended scenarios based on capacity, mass and volume. I can find objects that weigh less than, equal to and more than 1 kg.
I can describe and draw simple two dimensional shapes.	I can identify and name familiar 2D shapes (e.g. a square, rectangle, circle, triangle, kite, rhombus)	I know that a shape has different features.	Pre and post test developed by the CT	Term 3, Weeks 7 & 8	I can investigate the properties of more complex two dimensional shapes such as a hexagon.

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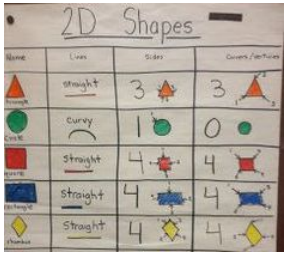
	I can describe and classify two dimensional shapes based on straight and curved lines, sides and corner. EG: "all these shapes are triangles because they have three sides"  I can draw different two-dimensional shapes and explain their features. VOCAB: Open and closed, two dimensions (length and height), corner, edges, straight lines, curved lines, compare, flat, right angle.	I know that a two dimensional shape is closed (not open)			I can describe irregular two dimensional shapes. I can create more complex classifications for two dimensional shapes (based on more than one category).
I can describe and recognise three-dimensional objects	I can identify and name a cube, sphere, pyramid, cylinder, prism, cone. I can describe three dimensional objects based on faces, vertices, edges.	I know what some 3D objects look like and can explain using some everyday words. I can recognise some 3D shapes in my world.	Pre and post test developed by the CT	Term 3, Weeks 8, 9 & 10	I can make 3D objects using a net. I can draw 3D objects.

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	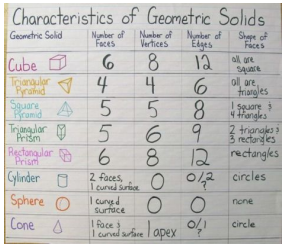 VOCAB: three dimensions (length, height, width), corner/vertices, apex, face, edges, triangular, spherical, cuboid, pyramid. Face: a flat side of a 3-dimensional object. Base: one of two parallel, congruent sides of an object. Edge: the intersection of two faces on a solid object. This is a line. Prism: a solid object with two congruent and parallel faces. Pyramid: a solid object with a polygon for a base and triangles for sides.				
I can investigate flips, slides and turns of shapes.	I know that a slide is when you move a shape or object left, right, up or down. I know that a flip is when you overturn a shape or object so that it is a mirror image of the original. I know that a turn is a shape that rotates around a single point.	I know what left and right are I know what up and down are I know what across is I know what around is	Ongoing assessments against rigour in the form of anecdotal notes.	Term 4, Weeks 1 & 2	I can explore 2 step flips, slides and turns I can explore flips, slides and turns in the real world I know that a quarter turn can also be called a

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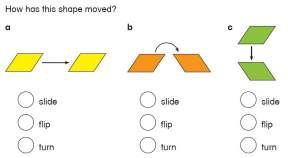
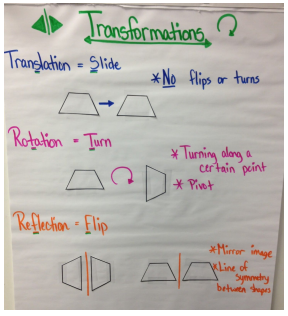
	 I can show a quarter and a half turn I can explore flip, slide and turn patterns I can use digital technologies to investigate flips, slides and turns I understand that a flips, slides and turns don't change the properties of the shape itself.  VOCAB: transformation, object, position, move, slide, flip/reflection, turn, half, quarter, symmetry.				right angle or 90 degree turn I know that a half turn can also be called a straight angle or 180 degree turn. I can connect the terms flip, slide and turn with reflect, translate and rotate

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	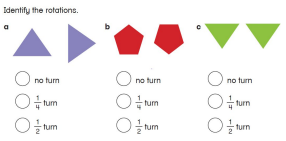				
I can tell quarter hour times using the words 'past' and 'to'.	I can show quarter past and quarter to on a analogue clock face. EG: "Show what is a quarter past six"  I can show quarter past and quarter to on a digital clock. I can write in words what is a quarter past and a quarter to the hour. EG: "Write in words what time is shown on the clock" A quarter to one  I can describe the characteristics of quarter past and quarter to time (ie. the small hand is pointing just past the number and the big hand is pointing to the three)	I know and can show what o'clock is. I know and can show what half past the hour is. I know which hand is the minute, hour and second hand.	CFA developed from Proficiency Scale Quick checks .	Term 4, Week 4, 5 & 6	I can describe time using other minute intervals. EG: "it is ten minutes past four" I can convert analogue time to digital time I can explore real world representations of time (e.g. interpreting timetables) I can explore problems of predicting and checking what I can do in a given time frame (e.g. How many times can you do (task) in a minute, in 15 minutes… etc)

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	Vocabulary: Time, clock, analogue, hour hand, minute hand, quarter, quarter to, quarter past, duration, clock face.				
I can recognise events that involve chance and describe outcomes using everyday language.	I can identify examples of events that involve chance I can classify a list of everyday events according to their likelihood. I can explain my prediction for the likelihood of an event based on what I know or what have seen. I can use everyday language to describe the chance of an event VOCAB: highly likely, highly unlikely, even chance, chance, likelihood, prediction.	I know that some things happen more often than others. I can discuss events and how often they occur. I can accurately describe chance using the words 'likely, unlikely, certain, impossible	Quick checks Anecdotal notes	Term 4, Weeks 7,8,9	I can create a probability line of chance events that includes numbers and chance language.  I can explore chance experiments where I predict and check outcomes

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