

# Oasis Classroom Program - Kids' Growing City

## Grade 4

### Curriculum connections to "Seeds and Seedlings" Lesson

#### Math

	Strand/Subject code	Expectation	OE	SE	
SOCIAL EMOTIONAL LEARNING	SEL	identify and manage emotions	SEL A1	NA	x
SOCIAL EMOTIONAL LEARNING	SEL	recognize sources of stress and cope with challenges	SEL A2	NA	x
SOCIAL EMOTIONAL LEARNING	SEL	maintain positive motivation and perseverance	SEL A3	NA	x
SOCIAL EMOTIONAL LEARNING	SEL	build relationships and communicate effectively	SEL A4	NA	x
SOCIAL EMOTIONAL LEARNING	SEL	develop self-awareness and sense of identity	SEL A5	NA	x
SOCIAL EMOTIONAL LEARNING	SEL	think critically and creatively	SEL A6	NA	x
NUMBERS SENSE	NSN	demonstrate an understanding of numbers and make connections to the way numbers are used in everyday life	NSN B1	NA	x
NUMBERS SENSE	NSN	use knowledge of numbers and operations to solve mathematical problems encountered in everyday life	NSN B2	NA	x
NUMBERS SENSE	NSN	read, represent, compose, and decompose whole numbers up to and including 10 000, using appropriate tools and strategies, and describe various ways they are used in everyday life	NSN B1	0.1	x
WHOLE NUMBERS	NSN	compare and order whole numbers up to and including 10 000, in various contexts	NSN B1	0.2	x
WHOLE NUMBERS	NSN	round whole numbers to the nearest ten, hundred, or thousand, in various contexts	NSN B1	0.3	x
WHOLE NUMBERS	NSN	represent fractions from halves to tenths using drawings, tools, and standard fractional notation, and explain the meanings of the denominator and the numerator	NSN B1	0.4	x

FRACTIONS	NSN	use drawings and models to represent, compare, and order fractions representing the individual portions that result from two different fair-share scenarios involving any combination of 2, 3, 4, 5, 6, 8, and 10 sharers	NSN B1	0.5	x
FRACTIONS	NSN	count to 10 by halves, thirds, fourths, fifths, sixths, eighths, and tenths, with and without the use of tools	NSN B1	0.6	
FRACTIONS	NSN	read, represent, compare, and order decimal tenths, in various contexts	NSN B1	0.7	x
FRACTIONS	NSN	round decimal numbers to the nearest whole number, in various contexts	NSN B1	0.8	x
FRACTIONS	NSN	describe relationships and show equivalences among fractions and decimal tenths, in various contexts	NSN B1	0.9	x
FRACTIONS	NSN:PROPERTIES	use the properties of operations, and the relationships between addition, subtraction, multiplication, and division, to solve problems involving whole numbers, including those requiring more than one operation, and check calculations	NSN B2	0.1	
OPERATIONS	NSN:FACTS	recall and demonstrate multiplication facts for $1 \times 1$ to $10 \times 10$ , and related division facts	NSN B2	0.2	
OPERATIONS	NSN:FACTS	use mental math strategies to multiply whole numbers by 10, 100, and 1000, divide whole numbers by 10, and add and subtract decimal tenths, and explain the strategies used	NSN B2	0.3	
OPERATIONS	NSN:FACTS: A/S	represent and solve problems involving the addition and subtraction of whole numbers that add up to no more than 10 000 and of decimal tenths, using appropriate tools and strategies, including algorithms	NSN B2	0.4	
OPERATIONS	NSN:FACTS: M/D	represent and solve problems involving the multiplication of two- or three-digit whole numbers by one-digit whole numbers and by 10, 100, and 1000, using appropriate tools, including arrays	NSN B2	0.5	

OPERATIONS	NSN:FACTS: M/D	represent and solve problems involving the division of two- or three-digit whole numbers by one-digit whole numbers, expressing any remainder as a fraction when appropriate, using appropriate tools, including arrays	NSN B2	0.60	x
OPERATIONS	NSN:FACTS: M/D	represent the relationship between the repeated addition of a unit fraction and the multiplication of that unit fraction by a whole number, using tools, drawings, and standard fractional notation	NSN B2	0.7	
OPERATIONS	NSN:FACTS: M/D	show simple multiplicative relationships involving whole-number rates, using various tools and drawings	NSN B2	0.8	x
OPERATIONS	PAA	identify, describe, extend, create, and make predictions about a variety of patterns, including those found in real-life contexts	PAA C1	NA	x
PATTERNS AND RELATIONSHIPS	PAA	demonstrate an understanding of variables, expressions, equalities, and inequalities, and apply this understanding in various contexts	PAA C2	NA	x
EQUATIONS AND INEQUALITIES	PAA	solve problems and create computational representations of mathematical situations using coding concepts and skills	PAA C3	NA	x
CODING	PAA	apply the process of mathematical modelling to represent, analyse, make predictions, and provide insight into real-life situations	PAA C4	NA	x
MATHEMATICAL MODELLING	PAA:P/R	identify and describe repeating and growing patterns, including patterns found in real-life contexts	PAA C1	0.1	x
PATTERNS AND RELATIONSHIPS	PAA:P/R	create and translate repeating and growing patterns using various representations, including tables of values and graphs	PAA C1	0.2	x
PATTERNS AND RELATIONSHIPS	PAA:P/R	determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in repeating and growing patterns	PAA C1	0.3	x
PATTERNS AND RELATIONSHIPS	PAA:P/R	create and describe patterns to illustrate relationships among whole numbers and decimal tenths	PAA C1	0.4	x

PATTERNS AND RELATIONSHIPS	PAA:E/I	identify and use symbols as variables in expressions and equations	PAA C2	0.1	x
EQUATIONS AND INEQUALITIES	PAA:E/I	solve equations that involve whole numbers up to 50 in various contexts, and verify solutions	PAA C2	0.2	x
EQUATIONS AND INEQUALITIES	PAA:E/I	solve inequalities that involve addition and subtraction of whole numbers up to 20, and verify and graph the solutions	PAA C2	0.3	x
EQUATIONS AND INEQUALITIES	PAA:CS	solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential, concurrent, repeating, and nested events	PAA C3	0.1	x
CODING	PAA:CS	read and alter existing code, including code that involves sequential, concurrent, repeating, and nested events, and describe how changes to the code affect the outcomes	PAA C3	0.2	x
DATA MANAGEMENT	DMP	manage, analyse, and use data to make convincing arguments and informed decisions, in various contexts drawn from real life	DMP D1	NA	x
PROBABILITY	DMP	describe the likelihood that events will happen, and use that information to make predictions	DMP D2	NA	x
DATA MANAGEMENT:DATA COLLECTION AND ORG	DMP:DCO	describe the difference between qualitative and quantitative data, and describe situations where each would be used	DMP D1	0.1	x
DATA MANAGEMENT:DATA COLLECTION AND ORG	DMP:DCO	collect data from different primary and secondary sources to answer questions of interest that involve comparing two or more sets of data, and organize the data in frequency tables and stem-and-leaf plots	DMP D1	0.2	x
DATA MANAGEMENT:DATA VISUALIZATION	DMP:DV	select from among a variety of graphs, including multiple-bar graphs, the type of graph best suited to represent various sets of data; display the data in the graphs with proper sources, titles, and labels, and appropriate scales; and justify their choice of graphs	DMP D1	0.3	x

DATA MANAGEMENT:DATA VISUALIZATION	DMP:DV	create an infographic about a data set, representing the data in appropriate ways, including in frequency tables, stem-and-leaf plots, and multiple-bar graphs, and incorporating any other relevant information that helps to tell a story about the data	DMP D1	0.4	x
DATA MANAGEMENT:DATA ANALYSIS	DMP:DA	determine the mean and the median and identify the mode(s), if any, for various data sets involving whole numbers, and explain what each of these measures indicates about the data	DMP D1	0.5	x
DATA MANAGEMENT:DATA ANALYSIS	DMP:DA	analyse different sets of data presented in various ways, including in stem-and-leaf plots and multiple-bar graphs, by asking and answering questions about the data and drawing conclusions, then make convincing arguments and informed decisions	DMP D1	0.6	x
PROBABILITY	PROB	use mathematical language, including the terms “impossible”, “unlikely”, “equally likely”, “likely”, and “certain”, to describe the likelihood of events happening, represent this likelihood on a probability line, and use it to make predictions and informed decisions	PROB D2	0.1	x
PROBABILITY	PROB	make and test predictions about the likelihood that the mean, median, and mode(s) of a data set will be the same for data collected from different populations	PROB D2	0.2	x
SPACIAL SENSE	SS	describe and represent shape, location, and movement by applying geometric properties and spatial relationships in order to navigate the world around them	SS E1	NA	
MEASUREMENT	SS	compare, estimate, and determine measurements in various contexts	SS/MEA E2	NA	
GEOMETRIC REASONING	SS:GR	identify geometric properties of rectangles, including the number of right angles, parallel and perpendicular sides, and lines of symmetry	SS E1	0.1	
LOCATION AND MOVEMENT	SS:LM	plot and read coordinates in the first quadrant of a Cartesian plane, and describe the translations that move a point from one coordinate to another	SS E1	0.2	x

LOCATION AND MOVEMENT	SS:LM	describe and perform translations and reflections on a grid, and predict the results of these transformations	SS E1	0.3	x
METRIC SYSTEM	SS/MEA/M S	explain the relationships between grams and kilograms as metric units of mass, and between litres and millilitres as metric units of capacity, and use benchmarks for these units to estimate mass and capacity	SS/MEA E2	0.1	
METRIC SYSTEM	SS/MEA/M S	use metric prefixes to describe the relative size of different metric units, and choose appropriate units and tools to measure length, mass, and capacity	SS/MEA E2	0.2	
TIME	SS/MEA/T	solve problems involving elapsed time by applying the relationships between different units of time	SS/MEA E2	0.3	x
ANGLES	SS/MEA/AN G	identify angles and classify them as right, straight, acute, or obtuse	SS/MEA E2	0.4	
AREA	SS/MEA/A	use the row and column structure of an array to measure the areas of rectangles and to show that the area of any rectangle can be found by multiplying its side lengths	SS/MEA E2	0.5	x
AREA	SS/MEA/A	apply the formula for the area of a rectangle to find the unknown measurement when given two of the three	SS/MEA E2	0.6	x
MONEY AND FINANCES	FL:MF	demonstrate the knowledge and skills needed to make informed financial decisions	FL F1	NA	x
MONEY AND FINANCES:MONEY CONCEPTS	MF:MC	identify various methods of payment that can be used to purchase goods and services	FL F1	0.1	x
MONEY AND FINANCES:MONEY CONCEPTS	MF:MC	estimate and calculate the cost of transactions involving multiple items priced in whole-dollar amounts, not including sales tax, and the amount of change needed when payment is made in cash, using mental math	FL F1	0.2	x
MONEY AND FINANCES:FINANCIAL MANAGEMENT	MF:FM	explain the concepts of spending, saving, earning, investing, and donating, and identify key factors to consider when making basic decisions related to each	FL F1	0.3	x
MONEY AND FINANCES:FINANCIAL MANAGEMENT	MF:FM	explain the relationship between spending and saving, and describe how spending and saving behaviours may differ from one person to another	FL F1	0.4	

MONEY AND FINANCES:CONSUMER AND CIVIC AV	MF: CCA	describe some ways of determining whether something is reasonably priced and therefore a good purchase	FL F1	0.5	x
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