Standards Correlation:
Symphony Math® and the British Columbia Curriculum

British Columbia Curriculum		Symphony Math	
Reference	**Description**	**Stage References**	**Concepts**
Grade K			
Number	**Number Concepts to 10:**	Stages 1-5	
	° One to one correspondence/ cardinality	Stage 1, Checkpoint, Extension Stage 1	Understand 1: 1 correspondence, quantity, conservation, cardinality, read, order, sequence, count forward and backward, use of pictorial models throughout
	° Sequence 1-10	Stage 1, Checkpoint, Extension Stage 1	Sequence, count forward, count backward to 10
Ways to Make 5			
	° Subitize	Stages 1, 2, 3	Use of visual dot-cards and bars promote subitizing when identifying, finding more or less, composing numbers to 5
	° Compare quantities	Stages 2, 5, Checkpoint and Extensions Stages 2, 5	Compare quantities to 10, find more, less, 1 more, 1 less, and equal
	° Ways to make 5	Stage 3, Checkpoint and Extension Stage 3	Parts to whole to make 5, decompose and recompose parts to make 5, use of pictorial models to show ways to make 5, operations to make 5

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Reference	Description	Stage References	Concepts
	° Decomposition of numbers to 10	Stages 3, 4, Checkpoint, Extension Stages 3, 4	Decompose and recompose quantities to 10, 10 as a unit, part-part-whole thinking, role of 0 and 1 when composing numbers, commutative property
	° Change in quantity to 10	Stages 3, 4, Checkpoint, Extension Stages 3, 4	Decompose and recompose quantities to 10, Ten as a unit, part-part-whole thinking, operations to 10
Computational Fluency	Change in quantity to 10, using concrete materials	Stage 4, 5, Checkpoint and Extension Stages 4, 5, Mastery Rounds 3, 4	Continue to develop strong sense of number: Decompose and recompose to 10, make 10, part-part-whole thinking, relate smaller number parts to make 10, subitize when making 10, more than, less than, equal to, use of pictorial models throughout, fluency (timed) facts to 10

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Reference	**Description**	**Stage References**	**Concepts**
Grade 1			
Number	**Number Concepts to 20**	Stages 3-6, 11.1	
	° Skip-counting by 2 and 5	Stage 11.1	Skip count by 2's, 5's, 10s, 20s, 50s, recognize count shows groups of, and how many in each group
	° Sequence, compare and order numbers to 20	Stage 5, Checkpoint, Extension Stage 5	Build on prior experience with number composition to compare and order numbers to 20, use of <, >, and = signs to compare magnitudes
	° 10 and some more	Stage 4.3, 4.4 Checkpoint and Extension Stage 4	Understand 10 as a unit as basis of 10 and some more, apply understanding to subtract from '10 and some more'
	° Ways to make 10	Stage 4, Checkpoint and Extension Stage 4, Mastery Rounds 3, 4	Decompose and recompose 10's into parts, ways to make 10, benchmarks of 10, timed fluency round combinations to 10
	° Base 10	Stage 6.2, 6.3, 6.4	Recompose ones into 10 and some ones, use of pictorial models throughout
Computational Fluency	**Addition and Subtraction to 20 (understanding of operation and process)**	Stage 6, Checkpoint, Mastery Rounds 5, 6	Decompose and recompose to 20, understand relationship between addition and subtraction, Fact families, different ways to make numbers to 20, Use strategies to make 10, Add and subtract to 20, Fluency (timed) facts to 20
	Change in quantity to 20, concretely and verbally	Stage 6.2, 6.4, 6.5, 6.6 Checkpoint Stage 6	Computation to 20, missing change, change in quantity, fact families, 3-part addition and subtraction, pictorial models and justifications throughout
	Meaning of equality and inequality	Stages 4, 6, Extension Stage 6	Apply meaning of equality and inequality, use of symbolic language using = sign, pictorial models support justifications provided throughout

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Reference	**Description**	**Stage References**	**Concepts**
Grade 2			
Number	**Number Concepts to 100**	Stages 6, 7, 8	Identify 10s, Order and sequence decade numbers. Find, make; 10, '10-more' '10-less' than decade numbers. Combine parts of 1-digit numbers related to combining parts of 2-digit numbers up to and including 100. explore magnitude of numbers to 100.
	° Skip-count by 2,5, and 10	Stage 7.2, 7.3, 7.4, 7.5, 11.1	Count forward and backward by 10s, Find 10 more and 10 less, skip count by 2's, 5's, 10s, 20s, 50s, recognize count shows groups of, and how many in each group
	° Benchmarks of 25, 50, and 100 and personal referents	Stages 7.2, 7.8 8, 9	Importance of benchmark numbers when composing and operating on numbers, relationship and comparison between 1-digit, 2-digit, 3-digit numbers of different magnitudes
	° Place value: understanding 10s and 1s	Stages 6, 7.6, 7.8	Importance of 10 in base 10 number system, see and use 10 + some more, relationship between 1's and 10's combinations, addition of teens and ones
	° Place value: relationship between digit places and their value	Stages 7.6, 7.7, 7.8, 8 Extension Stage 7	Apply known small number combinations to compose numbers in 10s, 100s, place value addition and subtraction
	° Place value: decompose 2-digit numbers into 10s and 1s	Stage 8, Checkpoint, Extension Stage 8	Parts to whole with 1s and 10s
Computational Fluency	**Addition and Subtraction Facts to 20 (introduction of computational strategies)**	Stages 6, 8, Mastery Rounds 5, 6	Fact families, inverse relationship between addition and subtraction, 3-part addition and subtraction, missing results, missing change, parts to whole with 1s and 10s, fluency (timed) facts to 20

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Reference	Description	Stage References	Concepts
	Addition and Subtraction to 100:	Stages 7, 8, Checkpoint & Extension Stages 7,8	Addition and subtraction with multiples of 10, Combine parts of 1-digit numbers related to combining parts of 2-digit numbers, use of magnitude bars, dot-cards and number line throughout
	° Decompose numbers to 100	Stages 7, 8.1- 8.7 Checkpoint, Extensions Stages 7, 8	Decompose and recompose numbers to 100, parts to whole with 1s and 10s (and -10), decompose and recompose into 10s and 1s, related 1s and 10s combinations, place value comparisons 10s and 1s
	° Strategies	Stages 7.4-7.8, 8.5- 8.8	Use 10 as a benchmark, add and subtract multiples of 10, related 1s and 10s combinations, combinations to 100, compose numbers using 10 as a benchmark
	° Add and subtract in real-life contexts	Stages 6-8, Extensions Stages 6-8	Real-life contextual problems throughout program
	° Change in quantity, using pictorial and symbolic representation	Stages 6, 7, 8, Checkpoints 6-8, Extensions Stage 6-8	Addition and subtraction with missing result, missing change; pictorial and symbolic representations used throughout
	° Symbolic representation of equality and inequality	Stages 6-8, Checkpoints 6-8, Extensions 6-8	Addition and subtraction to 100, symbolic notation, justifications throughout

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Reference	**Description**	**Stage References**	**Concepts**
Grade 3			
Number	**Number Concepts to 1000**	Stages 9, 10, Extensions Stage 10	Identify hierarchical unit of 3-digit numbers, (hundreds), related 1s, 10, 100s combinations, compare 100s, understand commutative property, fact families, role of 0 and 1 in addition and subtraction, parts-to-whole with place value composition
	° Skip-count, related skip-counting to multiplication	Stages 7.3, 9.2, 9.3, 11, 13.1-13.3 Checkpoint Stages 11, 13, Extensions Stages 11, 13	Count forward and backward by 10s, 100s, skip count from any number by 2s, 5s, 20s, 50s, relate 'groups of' to multiplication, move from additive to multiplicative thinking, understand group size, introduction to arrays
	° Compare and order numbers to 1000	Stages 9.1-9.5, 9.8	Make, identify, order, count by 100s, find '100 more,' '100 less,' compare 100s,
	° Place value: 100s, 10s, and 1s	Stages 9.6-9.7, 10, Checkpoint Stage 10, Extension Stage 10	Related 1s, 10s, and 100s, add 2-digit and 1-digit numbers, parts to whole based on the structure of number, 100 as a benchmark number,
	° Place value: relationship between digits and their values	Stages 9.6, 10, checkpoint Stages 9, 10, Extension Stages 9,10	Related 1s, 10s, 100s, combinations, part-part-whole to 1000, 100 as benchmark number, compare 3-digit numbers based on meanings of place value,
	° Place value: understand the importance of 0	Stages 3, 6, 8,10, Mastery Rounds 1-8	Pictorial representations throughout support role of zero, operations with 0, Apply the importance of 0 in fluency rounds, addition and subtraction to 100s
	Fraction Concepts:	Stage 14, Checkpoint, Extensions Stage 14	Pictorial representations to support; make 1/a, identify 1/a, partition to create equal unit fractions, equate fractions with division, compare, combine unit fractions

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Reference	Description	Stage References	Concepts
	° Fractions as numbers	14.2.-14.4, Checkpoint and Extension Stage 14	Place fractions on number line as way to recognize its magnitude and property of being a number, combine fractions using models for combining whole numbers, understand whole numbers as fractions,
	° Fractions represent parts of region or linear model	Stage 14.1, 14.2, 14.4 , 14.5	Partition regions and number lines into equal parts ,understand unit fractions and compose non-unit fractions, compare fractions using region and linear models
	° Read fraction models and connect to symbolic notation	Stage 14.2-14.6 Checkpoint and Extension Stage 14	Connect pictorial models to symbolic notation throughout
	° Equal partitioning	Stage 14.1-14.5	Understand fraction amounts by partitioning region and linear models, create unit fractions, fractions equal to 1, compare fractions using equal partitioning
Computational Fluency	**Addition and Subtraction to 1000**	Stages 10, 12, Checkpoint, Extension Stages 10, 12	Parts to whole with 1s, 10s, 100s, Place value addition and subtraction missing result, missing change, equalities, Regrouping with 2 and 3-digits, add and subtract in real-life contexts and problem-based situations
	° Flexible computation strategies to add and subtract to 100	Stages 10, 12, Checkpoint, Extension, Stages 10, 12	Decompose, make, and bridge with 10s, understand the structure of numbers, commutative property, inverse relationship between addition and subtraction, use prior knowledge with number combinations and apply to 2-3-digit numbers, recognize and use hierarchical structure of 1s, 10s, 100s, regrouping
	° Addition and subtraction facts to 20 (emerging computational fluency)	Mastery Rounds 5, 6	Fluency (timed) facts to 20

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Reference	Description	Stage References	Concepts
	° Demonstrate fluency with strategies for addition and subtraction	Stages 6-8, Mastery Rounds 5, 6, Checkpoint and Extension Stage 6	Decompose, make, and bridge with 10s, add and subtract with 10s, commutative property, inverse relationship between addition and subtraction, demonstrate fluency with (timed) facts to 20
	Multiplication and Division Concepts	Stages 11, 13, 15	Skip counting, multiplicative relationships, multiplication and division, unknown groups, number of groups, missing dividend, missing divisor, pictorial models used throughout
	° Understand concepts of multiplication	Stages 11.3, 13.1-13.3, 15.1-15.3,	Understand number of groups, group size, arrays, repeated addition,
	° Understand concepts of division	Stage 13.4-13.6, 15.4-15.6	Understand inverse relationship between multiplication and division, partitioning models, make equal groups and determine size of group
	° Multiplication and division are related	Stage 13.4-13.6, 15.4-15.8 Checkpoints and Extensions Stage 13 and 15	Understand inverse relationship between multiplication and division, partitioning models, make equal groups and determine size of group, commutative property, distributive property
	° Pictorial representations of multiplication	Stages 11, 13, 15, Checkpoint, Extension Stages 11, 13, 15	Pictorial models used throughout program, partitioning, arrays, area model, number lines used to demonstrate big ideas of multiplication
	° Connect multiplication to skip-counting	Stage 11.1, 11.2	Understand how skip counting bridges to repeated equal groupings/multiplication
	° Connect multiplication to division and repeated addition	Stage 11.2, 13.4 - 13.6, 15.4-15.6	Understand connection between multiplication and repeated addition and division through pictorial models of repeated equal groupings, apply ideas of repeated equal groupings to relationship between multiplication and division
	One-step addition and subtraction equations with an unknown number	Stage 10, 12, Checkpoint, Extension, Stages 10, 12	Addition and subtraction, missing change to 1000

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Reference	Description	Stage References	Concepts
	° Start unknown	Stages 10, 12	Parts to whole with missing start throughout, application of relationship between addition and subtraction, fact families, parts and wholes
	° Change unknown	Stages 10.2, 10.4, 12.1-12.5	Apply relationship between addition and subtraction, how numbers are related, and parts and wholes connect, use of pictorial models throughout
	° Result unknown	Stages 10.1, 10.3, 10.6, 10.7,	Apply relationship between addition and subtraction, how numbers are related, knowledge of parts and whole connections, use of pictorial models throughout

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Reference	**Description**	**Stage References**	**Concepts**
Grade 4			
Number	**Number concepts to 10 000**	Stages 9, 10, 12, 21 checkpoint Stage 9, Extension Stage 9	Recognize number magnitude, compose and decompose numbers in thousands, understand meaning of ones, tens, hundreds, and thousands, compare and order numbers. Use of number line to regroup and order numbers. Place value application to add 3- and 4-digit numbers.
	° Number magnitudes	Stages 9.8, 10.8	Compare numbers based on place value meanings
	° Decompose and recompose numbers	Stages 9.6-9.7, 10.1-10.7, 12.1-12.5, 21.1-21.8	Decompose and recompose numbers to thousands, understand hierarchical groupings and regrouping, apply knowledge to understand vertical placement by place value meanings when decomposing and recomposing numbers
	° Place value	Stages 9.6-9.7, 10.1-10.7, 12.1-12.3, 21.1-21.8	Use place value concepts to decompose and recompose numbers, understand how thousands, hundreds, tens, and ones are organized, regroup, apply knowledge to further understand vertical placement by place value meanings when operating on numbers
	° Relationship between digit places and their value	Stages 9.6, 12, Extension Stages 9, 12	Hierarchical groupings with parts to whole, regrouping, apply and understand structure of 1s, 10s, 100s
	Decimals to hundredths	Stages 16, 19	Multiply and divide by 1, 10, 100. Understand fraction/decimal equivalency with tenths and hundredths. Decimal notation to hundredths; find, order, compare decimal numbers.
	° Fractions and decimals as numbers and parts of region or linear model	Stage 19.1-19.6	Visual models include fraction bars and number lines, partitioning to represent quantity, equalities with fraction and decimal amounts

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	° Fractional parts and decimals are equal shares of a whole	Stages 16.1-16.5, 19.2-19.5 Checkpoint, Extension Stage 19	Multiply and divide with 1, 10, 100, partitioning to represent quantities and equalities with fraction and decimal amounts
	° Understand relationship between fractions and decimals	Stages 16, 19.2-19.5, Checkpoint, Extension Stage 19	Multiply and divide with 1, 10, 100, partitioning to represent quantities and equalities with fraction and decimal amounts
	Ordering and comparing fractions	Stages 14, 17, 18	Compare and order fractions with like denominators, like numerators, Partition with pictorial representations, place fractions on number line, create non-unit fractions from unit fractions and look for equivalency
	° Compare and order fractions with like denominators	Stages 14.5, 18.1, 18.2	Compare fractions with same denominators, combine unit fractions to create larger fractions with same denominators
	° Use of visual models	Stages 14, 17, 18, Checkpoint Stage 14, Extension Stages 14, 17	Use of regional and linear models to support partitioning into repeated equal groupings
	• Equal partitioning	Stages 14, 17, 18 Checkpoint Stage 14, 18 Extension Stage 14, 17	Use of regional and linear models to support partitioning into repeated equal groupings, application of pictorial models to support repeated equal group partitioning used to combine fractions with same denominators
Computational Fluency	**Addition and subtraction to 10 000**	Stages 12, 21 Checkpoint and Extension Stages 12, 21	Regroup with 2 and 3 digits, apply structure of tens, hundreds, and thousands to 'standard' algorithm for addition and subtraction, visual models, justification, story problems throughout
	° Use of flexible computation strategies	Stage 21.5-21.8 Checkpoint and Extension Stage 21	Take apart and recombine numbers in variety of ways, compensating, regrouping with hierarchical groupings using structure of 1s, 10s 100s, 1000s
	° Use addition and subtraction in real-life contexts	Stages 12, 21, Checkpoint and Extension Stage 21	Real-life contexts throughout program

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Reference	Description	Stage References	Concepts
	Multiplication and division of two- or three-digit numbers by one-digit numbers	Stages 13, 15, 22, Checkpoint and Extension Stages 13, 15, 22	Application of commutative and distributive properties of multiplication and division, multiply and divide with missing factors, divisors, products, dividends; partial products + area model pictorial representations to show expanded mode multiplication and division
	° Understand relationship between multiplication and division, multiplication and addition, division and subtraction	Stages 15.1- 15.6, 15.7, 15.8, 22, Checkpoint Stage 15, Extension Stage 15	Understand and apply idea of repeated equal groupings to connect mult. with addition, division and subtraction, multiplication and division, commutative property and distributive property to show relationship between operations, apply area model to related mult. and division problems
	° Use flexible computation strategies	Stages 15, 22	Decompose, use distributive principle and commutative principle, and partial products to compute
	° Use multiplication and division in real-life contexts	Stages 15, 22	Real-life contexts throughout program
	Addition and subtraction of decimals to hundredths	Stages 19, 24, 25, Checkpoint and Extension Stages 19, 24, 25	Understand decimal magnitudes and place value, inverse relationship between multiplication and division as applied to decimal place value, importance of decimal place value with addition and subtraction
	° Use of visual models	Stages 19.4, 25.2	Pictorial representations using regions and number lines to support decimal operations throughout
	° Use addition and subtraction in real-life contexts	Stages 19.4, 25.2	Real-life contexts throughout program
	Addition and subtraction facts to 20 (developing computational fluency)	Mastery Rounds 5 & 6	Build on previous grade-level addition and subtraction facts, Timed fluency with addition and subtraction facts to 20

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Reference	Description	Stage References	Concepts
	Multiplication and division facts to 100 (introductory computational strategies)	Stages 15, 16, 22, Mastery Rounds 9, 10, 11	Use of expanded notation using partial products area model, inverse relationship between multiplication and division, and distributive property. Fluency (timed) with multiplication and division to 100
	° Opportunities for pictorial representations	Stages 16, 22, Checkpoint and Extension Stages 16, 22	Pictorial representations throughout program, use of area model, arrays, linear models
	° Build computational fluency	Stages 16.1-16.5, 22 Checkpoint Stage 16,22, Extension Stage 16, 22, Mastery Rounds 9 and 10	Practice with repeated equal groupings using array model, partial products, connected facts with 1, 10, 100 for multiplication and division, timed fluency facts to 100
	° Connect multiplication to division and repeated addition	Stage 13.4-13.6, 15.4-15.8, Checkpoints and Extensions Stage 13 and 15	Understand inverse relationship between multiplication and division, partitioning models, make equal groups and determine size of group, commutative property, distributive property
	° Computational strategies	Stages 16, 22, Checkpoint and Extension Stages 16, 22	Making 10s, 100s, commutative, associative, distributive properties, regrouping with place value, connection between mult. and division with 1/10/100
	One-step equations with an unknown number, using all operations	Stages 12, 21, 22, Extension Stages 12, 21, 22	One-step equations with unknown number throughout; unknown start, change, result; all operations

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Reference	**Description**	**Stage References**	**Concepts**
Grade 5			
Number	**Number concepts to 1 000 000**	Stages 12, 21	Apply understandings of place value meaning and extend to numbers larger than 5 and 6 digits: Recognize number magnitude, compose, decompose, and recompose numbers in ten-thousands, understand meaning of ones, tens, hundreds, and thousands, compare and order numbers. Use of number line to regroup and order numbers. Place value application with 5- 6-digit numbers. Apply properties to solve calculations in all operations, practice with fluency
	° Place value: 100,00s --------> 1s	Stage 21	Build on experiences with place value hierarchical groupings, apply meaning of place value to compute using 'standard' vertical algorithm, pictorial models to support place value meaning throughout
	° Understand relationship between digit place and their value	Stage 21, Checkpoint, Extension Stage 21	Build on experiences with place value hierarchical groupings, apply meaning of place value to compute using 'standard' vertical algorithm, pictorial models to support place value meaning throughout
	Decimals to thousandths	Stages 19, 24, 25, Checkpoint, Extensions, Stages 19, 24, 25	Understand and apply the multiplicative relationship to the base 10 place value system, extend understanding of place value meanings to decimals in hundredths, thousandths, understand relationship between multiplication and division by 10, 100, 1000 as applied to decimal numbers to thousandths and related fraction equivalencies, results of operations with fractions and decimals for understanding

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	Equivalent fractions	Stage 17.1, Checkpoint, Extension Stage 17	Create equivalent fraction using pictorial models of fraction bars (region model) and number lines (linear model), compare equivalent fractions with different denominators
	° Two equivalent fractions represent same amount	Stage 17.1, Checkpoint, Extension Stage 17	Create equivalent fraction using pictorial models of fraction bars (region model) and number lines (linear model), compare equivalent fractions with different denominators
	Whole-number, fraction, and decimal benchmarks	Stages 20, 22, 23, 24, Checkpoint and Extension, Stages 20, 22, 24	Benchmarks of 10,100, 1000, 1, 0.10, 0.01 throughout, equivalencies between fractions and decimals, hierarchical groupings with results when operating on whole-number, fraction, and decimal numbers, use of benchmarks when applying distributive property, use of pictorial models and justification throughout
	° Fraction, decimal equivalencies	16.3-4, 24.1-24.3, 25.1	Multiply and divide with powers of 10, visual models of fraction/decimal equivalencies, move back and forth between fraction and decimal notation, use of number line to show equivalencies
Computational Fluency	**Addition and subtraction of whole numbers to 1 000 000**	Stage 21. Checkpoint and Extension Stage 21	Understand and apply the structure of tens, hundreds, thousands, with multi-digit addition and subtraction, to standard algorithm; extend understanding to larger-digit numbers, pictorial representations throughout
	° Use number properties of addition and multiplication in doing calculations	Stages 21 and 22	Standard algorithm: addition and subtraction; apply place value to calculate. Use of commutative and distributive properties, area model for multiplication and division

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	Multiplication and division to three digits, including division with remainders	Stage 22, Checkpoint and Extension Stage 22	Expanded notation using multiples of 10, 100 when multiplying and dividing, expanded notation and place value partition and partial products, distributive property, pictorial representations used throughout, division with remainders
	Recognize the inverse relationship between multiplication and division and apply this understanding in doing calculations	22.1-22.5, 24.1-24.3, 25.1-25.3, 26.1-26.4, Checkpoint & Extension Stages 22, 24,25, 26	Recognize and use the inverse relationship between multiplication and division when doing calculations with whole numbers, fractions, decimals
	Addition and subtraction of decimals to thousandths	Stage 25, Checkpoint and Extension Stage 25	Apply structure of decimal notation to addition and subtraction with decimal numbers, expanded notation to thousandths, use of pictorial representations throughout
	Addition and subtraction facts to 20 (extending computational fluency)	Mastery Rounds 5 & 6	Timed fluency with facts to 20, addition and subtraction
	Multiplication and division facts to 100 (emerging computational fluency)	Mastery Rounds 9, 10, & 11	Timed fluency with facts to 100, multiplication and division
	One-step equations with variables	Stages 15-25	Use of unknowns throughout; unknown start, result, change