Cat5 Level 21 Teacher's Guide

(Semester) Spring testing: May 1st – June 30

Language and Mathematics Subtests

Please note that *Cat5 Level 21 subtests* cover the *Grade 11 curriculum*, so it is intended for students who have completed most of Grade 11. The testing dates are noted above, please administer the tests within that timeframe.

Language Subtests

	Requirements	Administration Times
Reading		55 minutes
Word Analysis		
Vocabulary		
Writing Conventions		40 minutes
Spelling		

Mathematics Subtests

	Requirements	Administration Times
Mathematics*	Calculators permitted	65 minutes
Computation & Estimation		
Real World Math		

**Please refer to Appendix B to determine which stream the course code refers to in your province.*

Reminders

- ☐ Teachers should administer *each* subtest in one sitting.
- ☐ (For Language subtests) Administer the Reading subtest first.
    - The contexts for many of the questions in the language subtests are taken from themes found in the Reading subtest.
- ☐ Refer to ***Appendix A*** below to determine the *English Language courses* in your province that are associated with each subtest.
- ☐ Refer to ***Appendix B*** below to determine the *Secondary Mathematics courses* that are associated with each subtest.
    - Teachers who teach both streams in *Academic/Applied, Foundations/Pre-Calculus, **or** College/University* should create separate test sessions to provide students with the correct test (e.g. Academic students will have access to the Academic test session).
- ☐ Refer to ***Appendix C*** below to view the *Secondary Mathematics Formulas* for ON and WNCP curriculum.
    - To print out the appropriate formula sheet for your students, please visit the Cat5 website and select *"Math Formula Sheets"* under Resources.
    - Please remind students to use **π = 3.14** for ALL calculations using **π.**

Pause and Log Out Sessions

- ☐ In order to pause the session during a test sitting, teachers can locate the ***Pause Session*** button on their Teacher Dashboard in the **Session Details** page.
    - Students must select the **Next button [>]** in order for the pause to be triggered.
- ☐ After you return from a break, click on ***Resume Session*** to give access to students without them having to log in again.
- ☐ At the *end of each sitting*, please select ***Pause Session*** if the devices will not be used for anything else.
- ☐ At the *end of the testing day*, always select ***Log Out Session for all*** on the Teacher Dashboard (in Session Details page) to ensure that students do not continue the test outside of the classroom or outside of your scheduled testing time.

For other user documentation, please visit: Cat5 Resources.

Appendix A:
English Language Guide for Secondary Teachers

Provinces	Grade 9	Grade 10		Grade 11		Grade 12	
ON	De-streamed English (ENL1W)	Applied English (ENG2P)	Academic English (ENG2D)	English College (ENG3C)	English University (ENG3U)	English College (ENG4C)	English University (ENG4U)
SK	ELA 9		ELA A10 and ELA B10		ELA 20		ELA A30 and ELA B30
AB	ELA 9	ELA 10-2	ELA 10-1	ELA 20-2	ELA 20-1	ELA 30-2	ELA 30-1
BC	ELA 9		Literary Studies 10, English First Peoples Literary Studies 10	Communications 11	Literary Studies 11, English First Peoples Literary Studies and New Media 11	Communications 12	English Studies 12, Literary Studies 12, English First Peoples 12
MB	Grade 9 ELA		ELA 20F		ELA Comprehensive Focus 30S, ELA Literary Focus 30S, ELA Transactional Focus 30S		ELA Comprehensive Focus 40S, ELA Literary Focus 40S, ELA Transactional Focus 40S
NB	English 9		English 10		Englis 112		English 122
QC **(English only)**	ENG632-306, ENG-306-3, and ENG-3062-3		ENG-632-406, ENG-4061-3, and ENG-4062-3	Secondary Year 4 English/SELA IV 630-416, ENG-4061-3 and ENG-4062-3 (CERP)	ENG 5016-3 and 5062-3 (STG), Secondary Year 4 ENG/ SELA IV, CERP	Secondary Year 5 English/SELA V (English as a First Language) 630-516, ENG-5061-3 and ENG-5062-3 (CERP)	
NS	ELA 9		English 10: Foundation Year		English 11		English 12
PE	ELA 9		ELA 10, ENG421A, and ENG421B (Pre-IB)		ELA 11, ENG 521A		ELA 12, English 621A
NL	ELA 9		English 1201		English 2201		English 3201
NT	ELA Grade 9		ELA 10-1	ELA 20-2	ELA 20-1	ELA 30-2	ELA 30-1
NU	ELA Grade 9		ELA 10-1	ELA 20-2	ELA 20-1	ELA 30-2	ELA 30-1
YK	ELA 9		Literary Studies 10, English First Peoples Literary Studies 10	Communications 11	Literary Studies 11, English First Peoples Literary Studies and New Media 11	Communications 12	English Studies 12, Literary Studies 12, English First Peoples 12

Appendix B:
Mathematics Guide for Secondary Teachers

Provinces	Grade 9*	Grade 10		Grade 11		Grade 12	
		Applied	Academic	College	University	College	University
ON	Mathematics (MTH1W)	Foundations of Mathematics (MFM2P)	Principles of Mathematics (MPM2D)	Foundations of College Math (MBF3C) Functions & Applications (MCF3M)	Functions (MCR3U)	Mathematics for College Technology (MCT4C)	Advanced Functions (MHF4U)
W.N.C.P.	**Mathematics**	**Mathematics**		**Foundations**	**Pre-Calculus**	**Foundations**	**Pre-Calculus**
SK	Mathematics	Foundations of Mathematics and Pre-Calculus 10		Foundations of Mathematics 20	Pre-Calculus 20	Foundations of Mathematics 30	Pre-Calculus 30
AB	Mathematics	Mathematics 10c (combined)		Mathematics 20-2	Mathematics 20-1	Mathematics 30-2	Mathematics 30-1
BC	Mathematics 9	Foundations of Mathematics and Pre-Calculus 10		Foundations of Mathematics 11	Pre-Calculus 11	Foundations of Mathematics 12	Pre-Calculus 12
MB	Mathematics (10F)	Intro to Applied and Pre-Calculus Mathematics (20S)		Applied Mathematics (30S)	Pre-Calculus Mathematics (30S)	Applied Mathematics (40S)	Pre-Calculus Mathematics (40S)
NB	Mathematics 9	Geometry, Measurement, and Finance 10 Number, Relations, and Functions 10		Foundations of Mathematics 110	Pre-Calculus 110	Foundations of Mathematics 120	Pre-Calculus A 120 Pre-Calculus B 120
QC	Cycle 2 First Year Mathematics	Cycle 2 Second Year Mathematics *Technical & Scientific Option or Science Option*		Cycle 2 Third Year Mathematics *Technical & Scientific Option*	Cycle 2 Third Year Mathematics *Science Option*		
NS	Mathematics	Mathematics 10		Mathematics 11	Pre-Calculus	Mathematics 12	Pre-Calculus 12
PE	Mathematics	Foundations and Pre-Calculus		Foundations	Pre-Calculus	Foundations	Pre-Calculus 12
NL	Mathematics	Mathematics 1201		Mathematics 2201	Mathematics 2200	Mathematics 3201	Mathematics 3200
NT	Mathematics	Mathematics 10c (combined)		Mathematics 20-2	Mathematics 20-1	Mathematics 30-2	Mathematics 30-1
NU	Mathematics	Mathematics 10c (combined)		Mathematics 20-2	Mathematics 20-1	Mathematics 30-2	Mathematics 30-1
YK	Mathematics	Foundations and Pre-Calculus		Foundations of Mathematics	Pre-Calculus	Foundations	Pre-calculus

**As of 2021, the mathematics subtest for grade 9 in all provinces is called "Mathematics", with no distinct streams.*

Appendix C:

Mathematics Formula Sheets*

To print Formula Sheet, go to: Cat5 website -> Resources -> Math Formula Sheets, and select the appropriate grade & curriculum.

Ontario Grade 11 University & College

Pythagorean Theorem

$a^2 + b^2 = c^2$, where *c* is the length of the hypotenuse

Linear Relations

The equation $y = mx + b$ is one form of a linear relation.

Slope: $m = \frac{y_2 - y_1}{x_2 - x_1}$

Quadratic Formula

Given the quadratic equation $ax^2 + bx + c = 0$,
the quadratic formula is:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Trigonometry

$$\sin\theta = \frac{opposite}{hypotenuse}$$
$$\cos\theta = \frac{adjacent}{hypotenuse}$$
$$\tan\theta = \frac{opposite}{adjacent}$$

Sine Law

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$$

Cosine Law

$$a^2 = b^2 + c^2 - 2bc\cos(A)$$

Compound Interest Formula:

$A = P(1 + i)^n$, ***A*** is the Amount and ***P*** is the Principal

W.N.C.P. Grade 11 Foundations & Pre-Calculus

Pythagorean Theorem

$a^2 + b^2 = c^2$, where *c* is the length of the hypotenuse

Linear Relations

The equation $y = mx + b$ is one form of a linear relation.

Slope: $m = \frac{y_2 - y_1}{x_2 - x_1}$

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Given the quadratic equation $ax^2 + bx + c = 0$,
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Trigonometry

$$\sin\theta = \frac{opposite}{hypotenuse}$$
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Sine Law

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$$

Cosine Law

$$a^2 = b^2 + c^2 - 2bc\cos(A)$$

Area and Volume: for *ALL* calculations on the test using π, *always use* **π = 3.14**

Circumference and Area of a **circle** with radius *r*

$C = 2\pi r$ $\qquad$ $A = \pi r^2$

Area of a **triangle** with base *b* and height *h*:

$$A = \frac{1}{2}bh$$

Volume of **Prism**:

V = area of base x height of the prism

Volume of **Pyramid**:

V = $\frac{1}{3}$ × (the volume of the enclosing prism)

Volume of **Cylinder** with height *h* and radius *r*:

$$V = \pi r^2 h$$

Volume of **Sphere** with radius *r*:

$$V = \frac{4}{3}\pi r^3$$

Sequences and Series (for University level courses only)

General term of arithmetic sequence: $t_n = a + (n - 1)d$

General term of a geometric sequence: $t_n = ar^{n-1}$

Sum of arithmetic series: $S_n = \frac{n}{2}(2a + (n - 1)d)$

Sum of geometric series: $S_n = \frac{a(r^n - 1)}{r - 1}$