

School District #60 (Peace River North)
Committee of the Whole
Regular Meeting
Tuesday, October 3, 2023 @ 1:30 p.m.
AGENDA

Education

1. Education Update

Stephen Petrucci, Superintendent

Framework Presentations & Departmental Reports (Attachments)

- | | |
|---|------------------|
| a) Grad Assessment Professional Development | 1:30 – 2:00 p.m. |
| <i>Stephen Petrucci, Superintendent</i> | |
| b) C.M. Finch Elementary School | 2:15 – 2:45 p.m. |
| <i>Troy Lang, Administrator</i> | |

Governance

1. Strategic Planning Update

Helen Gilbert, Board Chair

2. Board Annual Work Plan

Helen Gilbert, Board Chair

Operations

1. Operations Report (Attachment)

Angela Telford, Secretary-Treasurer

2. Community Coaches

Stephen Petrucci, Superintendent



2023/24 GRADUATION ASSESSMENT SCHEDULE

IMPORTANT NOTES

1. **Assessment Duration:** All assessments are designed to be completed within two hours. Students are permitted up to 60 additional minutes, if required.
2. **Assessment Time:** *New in 2023/24* – All assessments are open 8:00 am – 4:00 pm (local school time) and schools can set their own start and end times.
3. **Response Sheet Scanning:** The Grade 10 Numeracy Assessment includes a two-page paper response component. Schools should be scanning and uploading NME10 and NMF10 response sheets **daily as they are administered**.
4. **Évaluation de littératie de la 10^e année – Français langue première (LTP10) and Évaluation de littératie de la 12^e année – Français langue première (LTP12) :** The written and oral components of these assessments are administered separately. Headphones are required for both the written and the oral components. Microphones are required for the oral component. For instructions regarding the oral component, please refer to the Guide d'organisation (Administration guide) that is available on the [Technical Guides page on the e-assessment website](#).
5. **Évaluation de littératie de la 12^e année – Français langue seconde – immersion (LTF12):** The written and oral components of this assessment are administered separately. All students must complete the written component on the day indicated. Students may complete the oral component on any day during the oral administration window. Headphones are required for the written and the oral components. Microphones are required for the oral component. For instructions regarding the oral component, please refer to the Guide d'organisation (Administration guide) that is available on the [Technical Guides page on the e-assessment website](#).
6. **Assessment Schedule:** The Ministry of Education and Child Care aims to ensure this schedule does not change. Occasionally circumstances require changes after it is initially published. Should changes be required, the Ministry of Education and Child Care will communicate these changes via the Deputy Minister's Bulletin and a TRAX Update. An updated schedule will be posted to the Ministry of Education and Child Care's Graduation Assessments [website](#).
7. **Calendar of Important Dates:** An online calendar of important dates related to graduation assessments and data transfers is available [here](#).
8. **Contact:** Please contact the Ministry at assessments@gov.bc.ca if you have any questions.

NOVEMBER 2023 ADMINISTRATION:

MONDAY, OCTOBER 30 – FRIDAY, NOVEMBER 3 | 8:00 AM – 4:00 PM

ASSESSMENT	DATE
Grade 10 Literacy Assessment (LTE10)	October 30 – November 3
Grade 10 Numeracy Assessment (NME10)	October 30 – November 3
Grade 12 Literacy Assessment (LTE12)	October 30 – November 3
Évaluation de numératie 10 (NMF10)	October 31
Évaluation de littératie de la 12 ^e année Français langue première (LTP12) WRITTEN COMPONENT	November 1
Évaluation de littératie de la 12 ^e année Français langue première (LTP12) ORAL COMPONENT	November 2

JANUARY 2024 ADMINISTRATION:

MONDAY, JANUARY 15 – FRIDAY, JANUARY 26 | 8:00 AM – 4:00 PM

ASSESSMENT	DATE
Grade 10 Literacy Assessment (LTE10)	January 15 – 26
Grade 10 Numeracy Assessment (NME10)	January 15 – 26
Grade 12 Literacy Assessment (LTE12)	January 15 – 26
Évaluation de numératie 10 (NMF10)	January 15
Évaluation de littératie de la 10 ^e année Français langue première (LTP10) WRITTEN COMPONENT	January 16
Évaluation de littératie de la 10 ^e année Français langue première (LTP10) ORAL COMPONENT	January 17
Évaluation de littératie de la 12 ^e année Français langue première (LTP12) WRITTEN COMPONENT	January 18
Évaluation de littératie de la 12 ^e année Français langue première (LTP12) ORAL COMPONENT	January 19
Évaluation de littératie de la 12 ^e année – Français langue seconde-immersion (LTF12) WRITTEN COMPONENT	January 16 – 17
ORAL COMPONENT	January 15 – 26

APRIL 2024 ADMINISTRATION:

MONDAY, APRIL 15 – FRIDAY, APRIL 19 | 8:00 AM – 4:00 PM

ASSESSMENT	DATE
Grade 10 Literacy Assessment (LTE10)	April 15 – 19
Grade 10 Numeracy Assessment (NME10)	April 15 – 19
Grade 12 Literacy Assessment (LTE12)	April 15 – 19
Évaluation de numératie 10 (NMF10)	April 15
Évaluation de littératie de la 10 ^e année Français langue première (LTP10) <i>WRITTEN COMPONENT</i>	April 16
Évaluation de littératie de la 10 ^e année Français langue première (LTP10) <i>ORAL COMPONENT</i>	April 17
Évaluation de littératie de la 12 ^e année Français langue première (LTP12) <i>WRITTEN COMPONENT</i>	April 18
Évaluation de littératie de la 12 ^e année Français langue première (LTP12) <i>ORAL COMPONENT</i>	April 19

JUNE 2024 ADMINISTRATION:

MONDAY, JUNE 3 – FRIDAY, JUNE 14 | 8:00 AM – 4:00 PM

ASSESSMENT	DATE
Grade 10 Literacy Assessment (LTE10)	June 10 – 14
Grade 10 Numeracy Assessment (NME10)	June 10 – 14
Grade 12 Literacy Assessment (LTE12)	June 10 – 14
Évaluation de numératie 10 (NMF10)	June 10
Évaluation de littératie de la 10 ^e année Français langue première (LTP10) WRITTEN COMPONENT	June 11
Évaluation de littératie de la 10 ^e année Français langue première (LTP10) ORAL COMPONENT	June 12
Évaluation de littératie de la 12 ^e année Français langue première (LTP12) WRITTEN COMPONENT	June 13
Évaluation de littératie de la 12 ^e année Français langue première (LTP12) ORAL COMPONENT	June 14
Évaluation de littératie de la 12 ^e année – Français langue seconde-immersion (LTF12) WRITTEN COMPONENT ORAL COMPONENT	June 11– 12 June 3 – 14

Improving Student Outcomes

a guide for
boards of education



September 2023

BCSTA

British Columbia
School Trustees
Association

Calendars & Conversation Starters

The top priority for boards of education is to improve outcomes for students in their district. Understanding and using data through a governance lens can highlight areas of need and inform decisions. This guide is intended to support boards in this important work.

Boards of education and senior staff routinely discuss the many rich and diverse programs and opportunities that school districts provide to support all students. In addition to discussing and celebrating student learning, programs and opportunities, boards should regularly work with staff to review and reflect upon evidence that guides and informs decision making. The intention of these discussions should be to support, enhance and guide board governance.

Most of the evidence discussed by boards is gathered and presented by staff. In addition to the highly relevant local evidence, there are provincial reports that are routinely

created and shared with districts. The intention of this document is to highlight the provincial reports calendar and provide suggested questions that boards may consider as part of their dialogue with staff when examining these reports.

It is important to note a few key points when considering evidence of any kind. When reports are presented, whether local or provincial, it is always critical to consider your district's unique circumstances. British Columbia is a vast province, and each context is unique. Some districts have close to 80,000 students and other districts have fewer than 500. The consideration of evidence and the processes in place to examine, analyze, present and use it will vary across the province. Every district is unique, and all evidence has its own narrative and purpose.



Guiding Principles for Considering Evidence

1. Consider the intentions. Why are you looking at this evidence and for what purpose? Is it for information or to inform decisions?
2. Be cautious of evidence from a small sample of students and watch participation rates (the percent of students included in the assessment). Both the number of students taking an assessment and the participation rates compared to the entire district are important points to discuss and consider when putting evidence into context.
3. Seek both numerical (quantitative) evidence and observation or interpretation (qualitative) evidence. Try to unearth the stories and meaning behind the evidence.
4. Consider other pieces of evidence or other narratives that may inform the dialogue and learning. No one piece of evidence should stand alone and the triangulation of multiple sources of information is important. Ensure that the evidence is valid and that the evidence illuminates or measures what it intends to.
5. Look for patterns and trends over time rather than relying on a single 'snapshot.'
6. Listen to a range of voices when looking at evidence. This will help boards understand how evidence can be viewed and interpreted from a variety of perspectives.
7. Consider the different ways that evidence can be disaggregated and broken down into smaller groups.
 - Disaggregation can help focus conversations on the areas that require careful attention.
 - Typical groups for disaggregation include children in care, children with diverse abilities and disabilities, Indigenous learners, and gender.
 - Disaggregated evidence can also be combined, and an examination can also be done at the program level (e.g. alternate programs).



These broad principles are intended to inform dialogue and discussion. Each provincial report has its own story and timeline. In addition, all reports from the ministry are designed to support the Framework for Enhancing Student Learning (FESL). The framework is a provincially required process for every district to routinely examine evidence of student success and to create a strategic plan. There is also a requirement to annually report to the ministry with an enhancing student learning report, due by the end of September each school year.

The schedule in this document includes major releases from the Ministry of Education and Child Care. In each case, there is a short description of the report and sample questions that may help boards in discussions with their staff and leadership team. In addition, staff may complete preliminary work to present the evidence from these reports in a manner that more directly supports local context and is more aligned with the board's governance work. The data source may be the ministry reports, but the staff reports may be more tailored to suit specific needs or dialogue.

It is also important to note that some local measures may not align perfectly with ministry reports as there may be slight differences in the ways evidence is presented. When there are discrepancies, these are important points of conversation as there may be local contexts which provide additional clarity, or the methods used to gather and present the evidence may be slightly different.

Most of the broad measures used by the ministry are quite complex and there are different methods used for collection and reporting. As always, conversations between trustees and staff are an important part of the examination of evidence and the ministry is also a resource when there are questions about provincial reports and measures.

To support an understanding of these reports, there is a glossary attached with additional descriptions of each report. Please note that the indicated release dates are estimates and there may be annual timing fluctuations.

Graduation Assessments

Fall

Graduation assessment reports for Grade 10 Literacy, Grade 10 Numeracy and Grade 12 Literacy include data from the previous year as this is when the assessments were written. For example, a November release in 2023 is for assessments in the 2022-2023 school year.

Questions

What is done with the information received from the graduation assessments and how does it inform or guide programming?

What does the report say about the percent of students who are proficient or extending on the literacy assessment compared to the numeracy assessment?
What question comes to mind?

When these assessments are cross referenced to the *How Are We Doing Report*, what questions emerge?

How might the disaggregation of this assessment focus supports where they are most needed?

Completion Rates

November

Completion rates measure how many students are completing school within a certain period of time in their secondary years, normally within 6 years. Completion rates can be confused with graduation rates and it is important to note that these are very different measures. Completion rates are based on a cohort of students entering Grade 8 as opposed to graduation rates which are an individual measure. Completion rates are the measure currently used and are a more inclusive guide to how many students successfully finish school.

Questions

What differences does the report show between the five-year and six-year rates?

What do the longer rates (seven or eight year) reveal about students who don't complete school within six years?

What trends have been noticed over the past three years?

What about the different rates between all learners and students with diverse abilities and Indigenous students?

How might this evidence be used to inform goals and direction of the strategic plan?



Class Size & Composition

In the fall, the ministry collects detailed information on class size and composition. The following resources contain valuable information for boards of education.

Class Organization, 1.10 Headcounts of Students by Category (Special Education/Gifted/ELL)

Special Education Services: Manual of Policies, Procedures, and Guidelines, Section E.



How Are We Doing Report?

December

The *How Are We Doing* report includes several measures used to monitor the outcomes of self-identified Indigenous students.

Questions

How do staff use this report with district teams and other staff who work to support Indigenous students?

What does this report say about the numbers and achievement of students who live on-reserve compared to those who live off-reserve?

What does the report state about the percentage of Indigenous learners in alternate programs?

What differences emerge in the participation rates in the Foundation Skills Assessment (FSA)?

What does the report show about the trends in the numbers of students who are 'emerging' in the FSA?

What do the graduation assessment breakdowns in this report show about the achievement of Indigenous learners?

How and when is this report shared with local First Nations and what actions emerge from those conversations?

What governance decisions in support of Indigenous learners would be helpful for the board to consider?



Foundation Skills Assessment

January-February

The FSA measures the reading, writing and numeracy skills of students in Grades 4 and Grade 7.

Questions

How is the FSA created, and how is it used as an assessment tool, including the marking processes, as a form of collaboration?

What is the status of the FSA in the district and what are participation rates?

The FSA is just one mechanism to examine student achievement. In what other ways are learners assessed to determine how they are doing in literacy and numeracy as they proceed through school?

How do report cards provide system-wide evidence of how learners are doing in literacy and numeracy?

What evidence of learning in the K-7 years should the board be using to inform decision-making processes and what role might the FSA play in this decision making?

How do literacy results compare to numeracy results? What actions need to happen based on the results?



Student Characteristics: EDI & MDI

February-March

The Characteristics of Students Entering School (includes the Early Development Instrument - EDI and Middle Years Instrument - MDI) report, which is not provided annually, includes a sampling that lists a range of vulnerability indicators. As students enter school, it is intended to provide a profile of the well-being of learners.

Questions

What is the EDI and how is it, or similar information, used in the district?

What information is collected about students who enter the system and what early interventions are provided?

How are intellectual development and social and emotional learning balanced with a play-based curriculum in the early years?

What information is gathered about learners three and four years after entering kindergarten when considering what is known about who they are when they enter school?

What other district-level information is gathered about students and their learning as they prepare to enter kindergarten and how is this information used?

Are there regional result variations within the district?

What do the MDI results tell the district?



Student Transitions

June

The Student Transitions Project report tracks the pathways that students who enter grade 8 follow through to public post-secondary institutions, including both those who proceed to post-secondary institutions and those who do not.

Questions

What is a public post-secondary institution for the purposes of this report?

How do secondary schools promote the variety of pathways beyond graduation?

What options do students have for employment and their future if they do not proceed to post-secondary?

What dual-credit opportunities are provided and how are pathways to apprenticeships in the trades supported?

Student Learning Surveys

August

The Student Learning Survey targets students in grades 4, 7, 10 and 12, their parents and all staff. It is a general satisfaction survey about the education experience and is available in a wide range of languages.

Questions

What do these surveys state about students' sense of well-being and belonging?

These surveys also focus on well-being and belonging in addition to mental health. What information comes to the forefront about the mental health of students and how is this information used?

What programs, structures and opportunities support a sense of safety, belonging and identity in all students?

What information shows the status of the emotional well-being of students?

What evidence is useful and how does this evidence guide decisions?

What does the disaggregation of the results show about differing views of various groups of learners?

More

Most reports from the Ministry of Education and Child Care can be retrieved from the [Student Success](#) website. This site allows the retrieval of numerous reports in addition to allowing the comparison across districts.

BCSTA Indigenous Education Learning Guide

On pages 10 and 11 of the [Indigenous Learning Guide](#) there is information on data specific to Indigenous students.

Glossary

Aboriginal Students: How are We Doing?

Throughout each school year, the ministry collects student data, some of which is used to monitor outcomes for self-identified Indigenous students in the B.C. public school system. The data are published in the form of the annual *How Are We Doing?* (HAWD) Report.

The report has been published since 1999 and is used by the First Nations Education Steering Committee (FNESC), First Nations, and boards of education. It includes a provincial summary report, as well as 60 school district reports.

Data elements include the count of students, Foundation Skills Assessment results, graduation assessments and course marks, completion rate, post-secondary transitions and student learning survey results.

As noted in 2021/22 report, "The Tripartite partners have collectively agreed to retain 'Aboriginal' wording for the purposes of this year's 'How Are We Doing?' report. Updating terminology from Aboriginal to Indigenous requires changes to ministry data collection processes that will ensure standardized wording from collection onwards. This work is underway."

Characteristics of Students Entering School

This report lists a number of "vulnerability indicators" including physical, social and emotional as well as language characteristics. The information is based upon the Early Development Instrument which is a questionnaire completed by kindergarten teachers from across B.C. The questionnaire measures five core areas of early child development. These areas are good predictions of adult health, education and social outcomes.

Middle Years Development Instrument

This tool is used to gather data, from the student perspective, on the same themes as the EDI.



Class Size & Composition

In the fall of each year the ministry collects detailed information on class size (how many students in each class and each grade), and class composition (how many children with diverse abilities or exceptional needs) in each class.

Completion Rate

The proportion of students who graduate (with either the B.C. Certificate of Graduation ("Dogwood") or the B.C. Adult Graduation Diploma ("Adult Dogwood")) within a given number of years from the first time they enrol in Grade 8, adjusted for outmigration (the number of students who may leave the district based on previous modelling). There are four completion rate models: the five, six, seven, and eight-year models. Each model represents the potential number of years it may take a student to graduate. The most commonly used is the 6-year model and the reported measure is the six-year completion rate.

Foundation Skills Assessment (FSA)

The Foundation Skills Assessment is an annual province-wide assessment of all B.C. students' academic skills in grades 4 and 7, and provides parents, teachers, schools, school districts and the Ministry of Education and Child Care with important information on how well students are progressing in the foundation skills of reading, writing, and numeracy.

Graduation Assessments

Students in the B.C. Graduation Program complete three provincial assessments, Grade 10 Literacy, Grade 10 Numeracy and Grade 12 Literacy. The graduation assessments are an indicator of where individual students might have challenges in literacy and numeracy. They also provide a snapshot of how our education system is meeting the needs of students in these key areas.

Student Learning Survey, Post-Secondary and Career Preparation

Students in grades 4, 7, 10 and 12, their parents and all staff in B.C. public schools are invited to participate in an annual online satisfaction survey about their school experience. School districts may add their own questions. The Student Learning Survey also includes questions on how they are prepared for post-secondary education and jobs of the future. The Post-Secondary and Career Preparation is a separate report provided to school districts. Student and staff surveys are available in English and French. Parent surveys are available in 18 additional languages.

Transition to B.C. Post-Secondary

The Student Transitions Project looks at the pathways for students beyond grade 12. Beginning in Grade 8, it follows the cohort of Grade 8 learners and how they proceed to further education in post-secondary. The report follows both graduates and non-graduates. The information comes from the Student Transitions Project (STP) which is governed by an agreement between government and the four Research Universities (Simon Fraser University, the University of British Columbia, the University of Northern British Columbia and the University of Victoria).



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Graduation Numeracy Assessment

Sample – Giving Out Bonuses Situation and Questions

May 2018



BRITISH
COLUMBIA

Ministry of
Education





TEXT 'N' TALK
keeping you in touch!



Attention Sales Team Members!

Thanks to your hard work, TEXT 'N' TALK is becoming the nation's fastest growing mobile communications provider.



To show you how much we appreciate the work you do, we're announcing two different bonuses to the members of our sales teams who sold the most phones.



To be considered for the bonuses add your sales figures for April to the chart below!

You are the manager at Text 'N' Tal and have created a bonus program for your top salesperson and team.



Sales Report		
Sales Person	Team	Number of Phones Sold for the Month of April (30 days)
TySen	A	300 phones sold this month.
PETER	B	An average of 56 phones sold every 5 days.
Lewis	A	An average of $10\frac{1}{3}$ phones sold each day.
AINSLEY	A	598 phones sold in the last 60 days
Avery	A	An average of 98.25 phones sold every 10 days.
Jennifer	B	an average of $11\frac{4}{5}$ phones sold each day! :)
STEVEN	B	Average: 55 phones/week
Gabrielle	C	413 phones sold last year.
Diana	C	Average of 10.05 phones per day.
MATTHEW	D	AN AVERAGE OF 10.87 PHONES EACH DAY
Alexa	D	Average $9\frac{1}{6}$ phones each day.
Jasmine	C	267 phones this month.

1. What questions do you need to ask in order to make a decision about who gets the bonuses?

Select all that apply.

- ☐ How much do the phones cost?
- ☐ How many hours did each sales person work per week?
- ☐ Can a sales person get both the individual and the team bonus?
- ☐ Did each sales person accurately report the number of phones sold?
- ☐ What is the average length of employment of each sales person at Text 'N' Talk?

2. You decide to do the following computation with Steven's Sales Report: $\frac{55}{7}$.
What are you calculating?

- ☐ The average number of phones he sold in 1 day.
- ☐ The average number of phones he sold in 1 week.
- ☐ The average number of phones he sold in 1 month (April).
- ☐ The average number of phones he sold in 1 year.

3. Of Ainsley, Avery, Diana and Jasmine, which sales person sold the most phones in April?

- ☐ Ainsley
- ☐ Avery
- ☐ Diana
- ☐ Jasmine

4. You calculate April phone sales from the information your sales team members provided. Gabrielle reports 4113 phones sold in the last year. You decide that the fair way to calculate Gabrielle's April phone sales is to divide this number by 12, giving her 342.75, or approximately 343 phones sold.

Why might some of your sales team members disagree with your approach?

Select all that apply.

- ☐ Gabrielle could not have sold 343 phones in April.
- ☐ Gabrielle likely did not sell the same number of phones each month throughout the year.
- ☐ Gabrielle is the only sales team member whose April phone sales were calculated by averaging.
- ☐ Gabrielle's phone sales could be calculated by dividing 4113 by 365 days and multiplying by 30 days.

5. (Student-Choice Question)*

Which sales team should get the bonus?

Explain and justify your solution.

Need assistance working through this problem?

1. Watch the videos [that](#) explain how to use the five numeracy processes (ways of thinking and working) to solve questions in the Graduation Numeracy Assessment.
and/or
2. Work through the [Collaborative Learning Guide](#) that includes further suggestions on how students can work through these problems and develop their numeracy.

These can be done independently or collaboratively with peers.

*In each student-choice component, students choose one of two questions based on problems they have encountered earlier in the common component of the assessment. This question is one such example.

Grad Assessments



BC Education

Graduation Assessments

Graduation assessments are changing to align with the new curriculum and international trends for large-scale assessments. As part of the updated graduation requirements, students in the [New Graduation Program](#) will have to complete two provincial assessments. They will focus on the demonstration and application of numeracy and literacy.

- The Numeracy Assessment was introduced in the 2017-18 school year
- The Literacy Assessment was introduced in 2019-20 school year

ASSESSMENT

Classroom Assessments




Classroom assessments continue to be the primary source of information about student learning. Feedback from ongoing assessments in the classroom can be immediate and personal, helping students identify areas of growth and set new learning goals. Classroom assessments are led by teachers using a variety of assessment methods.

Provincial Graduation Assessments

There are three Provincial Graduation Assessments: the **Grade 10 Numeracy Assessment**, the **Grade 10 Literacy Assessment**, and the **Grade 12 Literacy Assessment**. Francophone students wishing to obtain dual diplomas must compete additional literacy assessments in Grades 10 and 12, while French Immersion students seeking a dual diploma need to complete an additional literacy assessment at Grade 12.

Policy Requirements for Provincial Graduation Assessments

Boards of education and independent schools are required to ensure students participate in Provincial Graduation Assessments. The Provincial Graduation Assessment requirements for all students are as follows:

-  Students must complete both the Graduation Numeracy Assessment and Graduation Literacy Assessments as a requirement for graduation. Students cannot receive equivalency for the Provincial Graduation Assessments.
-  In Grade 10:
 - Students are expected to write the Grade 10 Numeracy Assessment and the Grade 10 Literacy Assessment. (See [Graduation Requirements – for French Immersion/Francophone Dual Dogwood](#) for additional assessment requirements).
-  In Grade 12:
 - Students are expected to write the Grade 12 Literacy Assessment. (See [Graduation Requirements – for French Immersion/Francophone Dual Dogwood](#) for additional assessment requirements).

There will be an opportunity for students to re-write the Provincial Graduation Assessments to improve their proficiency levels. Students may write a Provincial Graduation Assessment up to three times: the original attempt and two re-writes.

-  The best outcome for each of the Provincial Graduation Assessments will be recorded on the student's transcripts.

The assessments will be reported using the following proficiency levels:

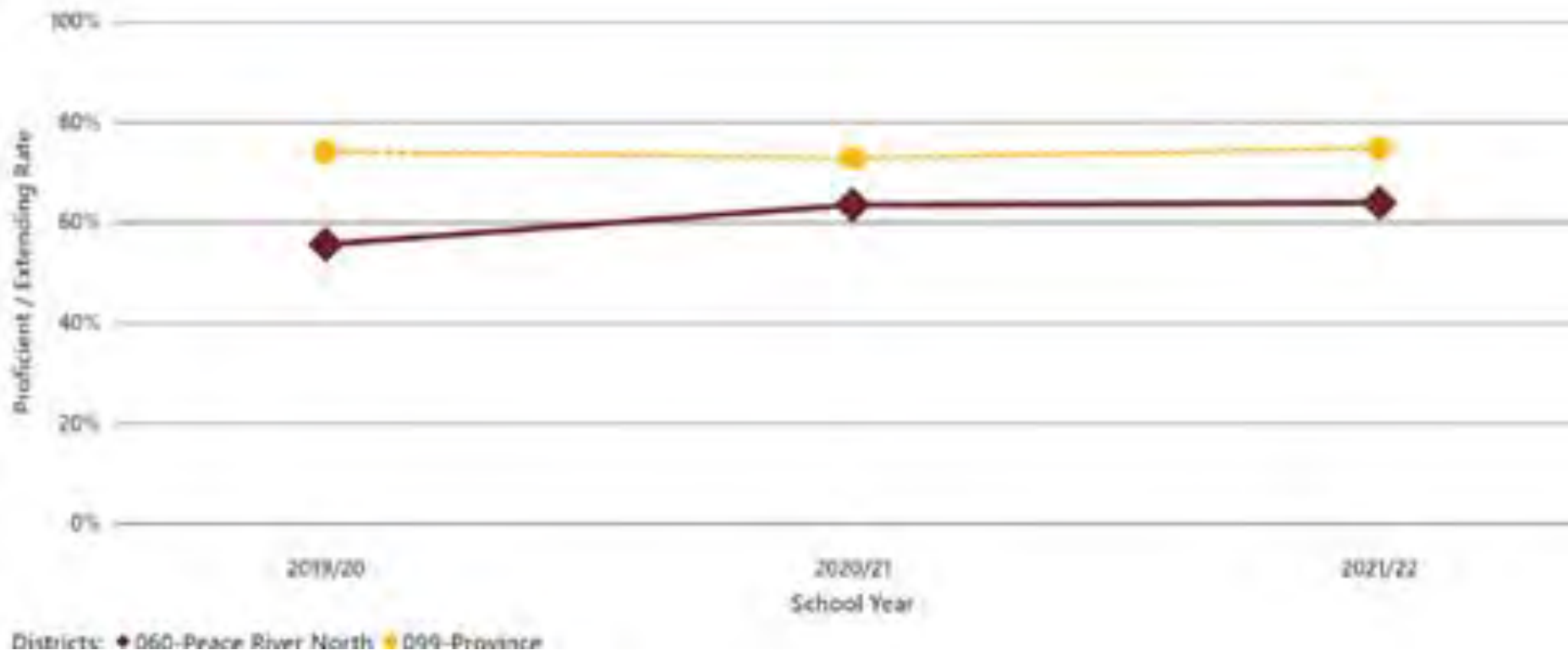
Provincial Graduation Assessments			
Emerging The student demonstrates an initial understanding of the concepts and competencies relevant to the expected learning.	Developing The student demonstrates a partial understanding of the concepts and competencies relevant to the expected learning.	Proficient The student demonstrates a complete understanding of the concepts and competencies relevant to the expected learning.	Extending The student demonstrates a sophisticated understanding of the concepts and competencies relevant to the expected learning.

A student's best proficiency level for the Provincial Graduation Assessments will appear on the student's transcript. However, for the Grade 10 Literacy Assessment and the Évaluation de littératie de la 10^e année – Français langue première, the student's transcript will only indicate "RM" ("requirement met"), and not a proficiency level.

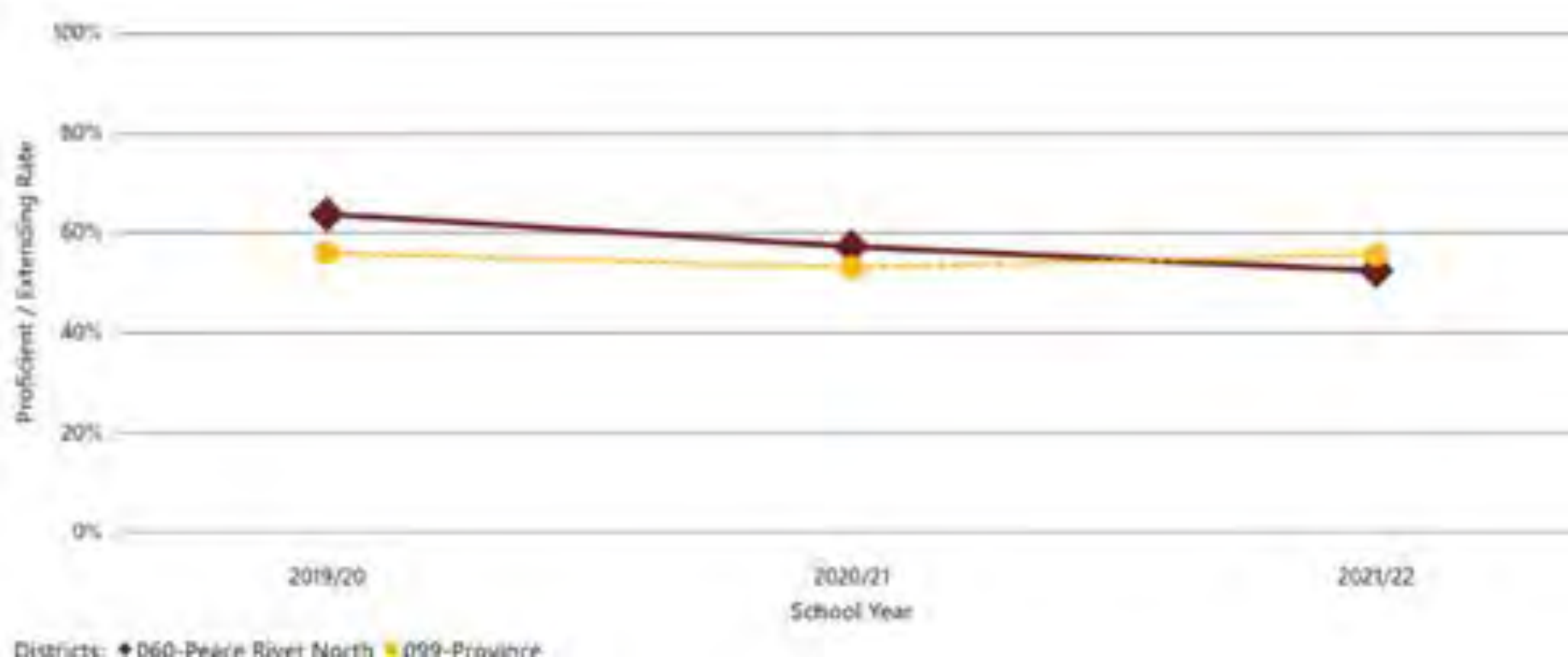
Samples and Resources

<https://www2.gov.bc.ca/gov/content/education-training/k-12/administration/program-management/assessment/graduation>

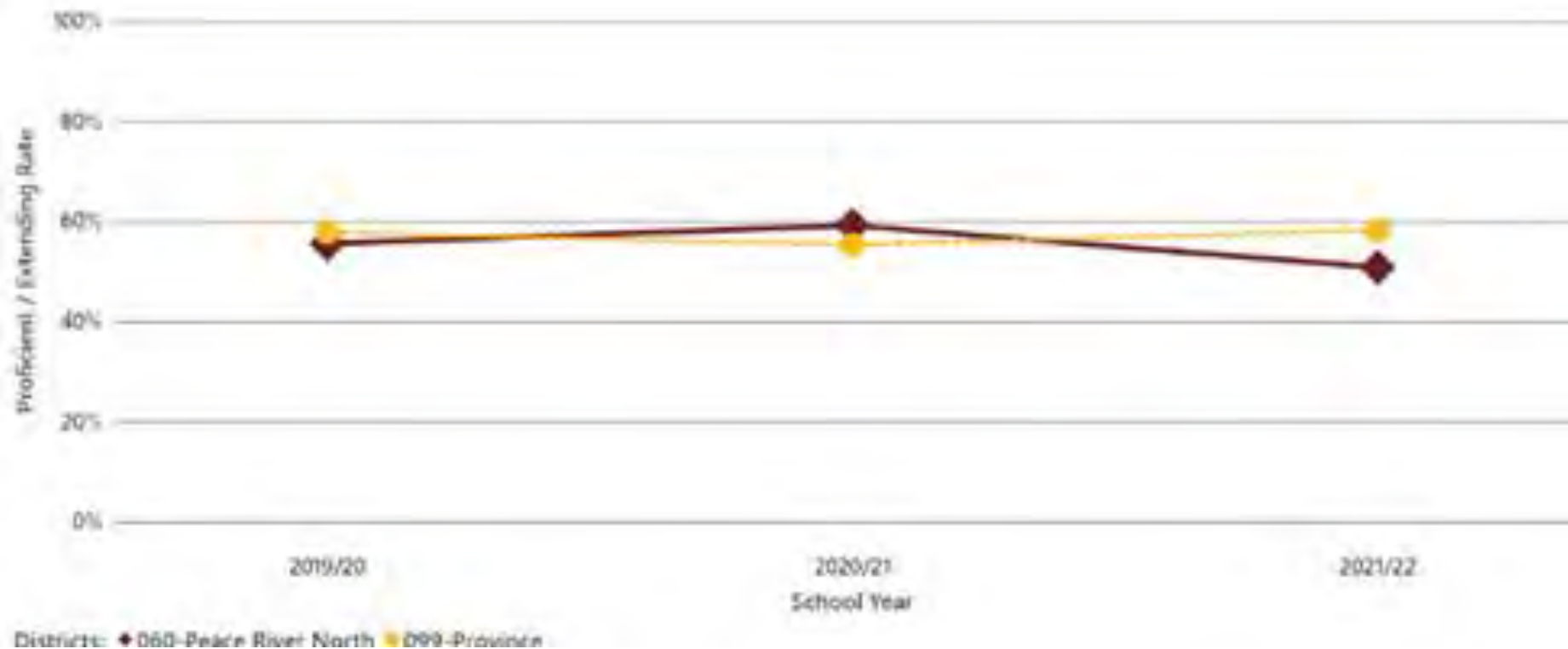
Grade 10 Literacy: All students



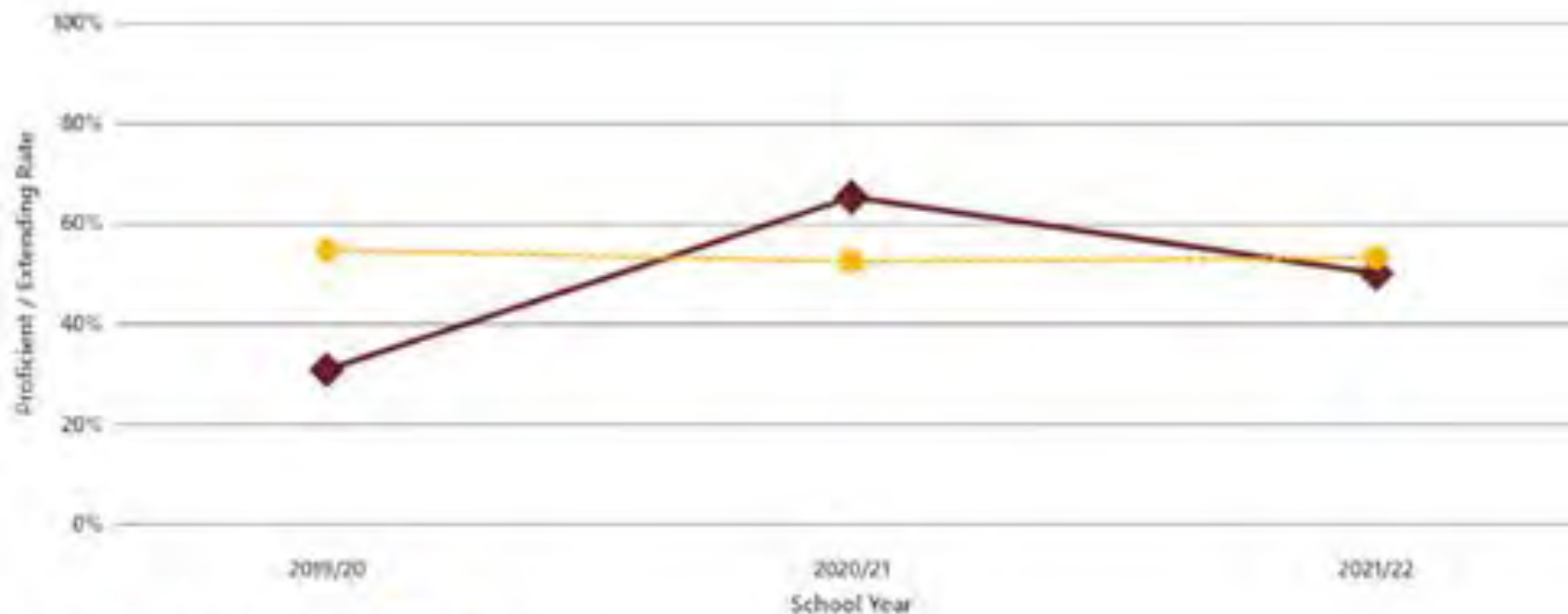
Grade 10 Literacy: All Indigenous Students



Grade 10 Literacy: Indigenous students off reserve

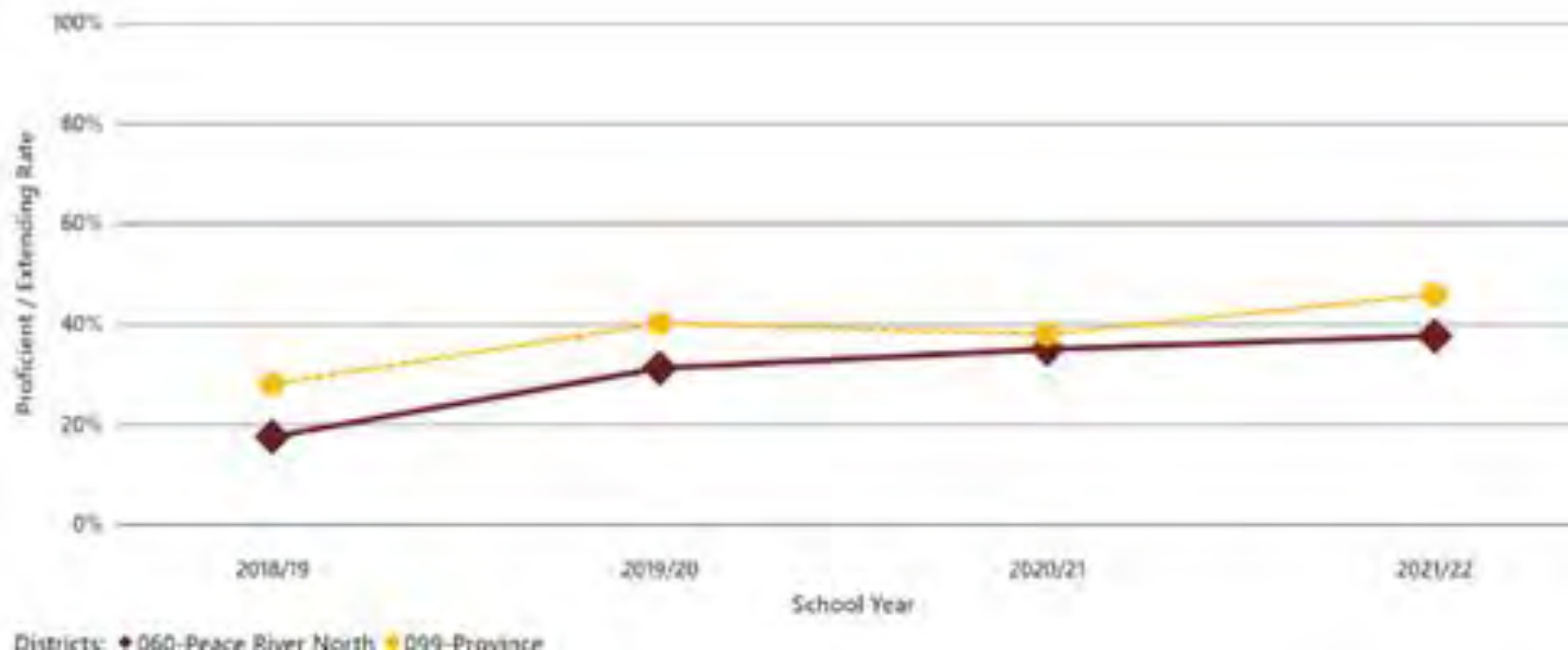


Grade 10 Literacy: Diverse Abilities

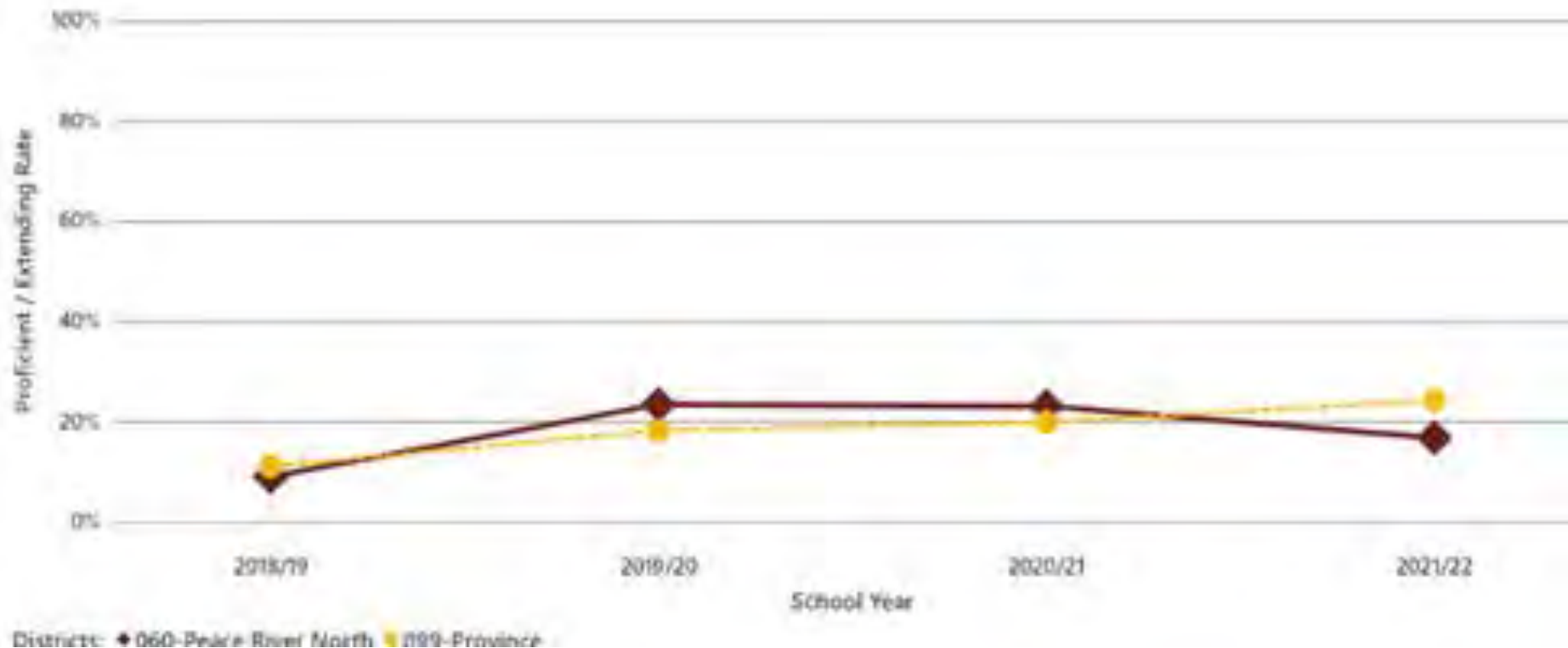


Districts: ♦ 060-Peace River North ■ 099-Province

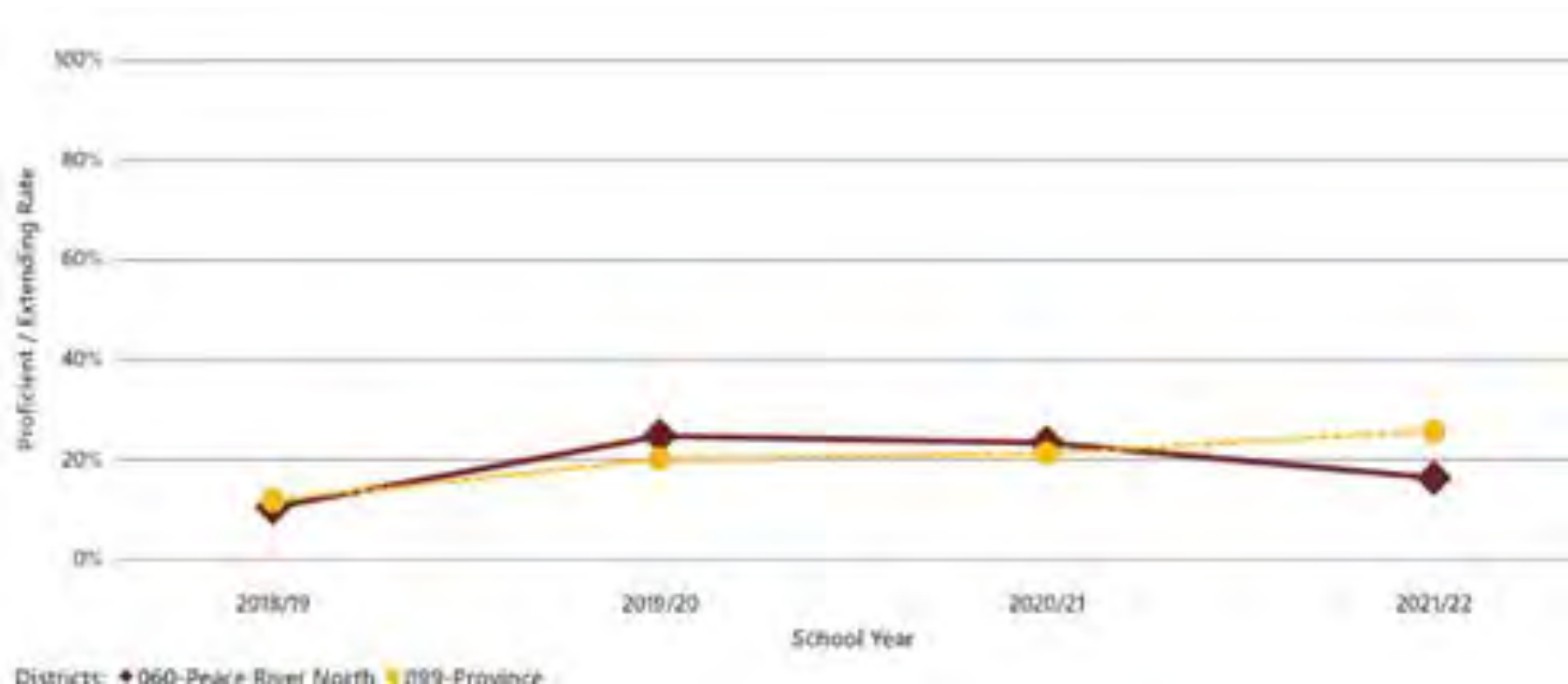
Grade 10 Numeracy: All Students



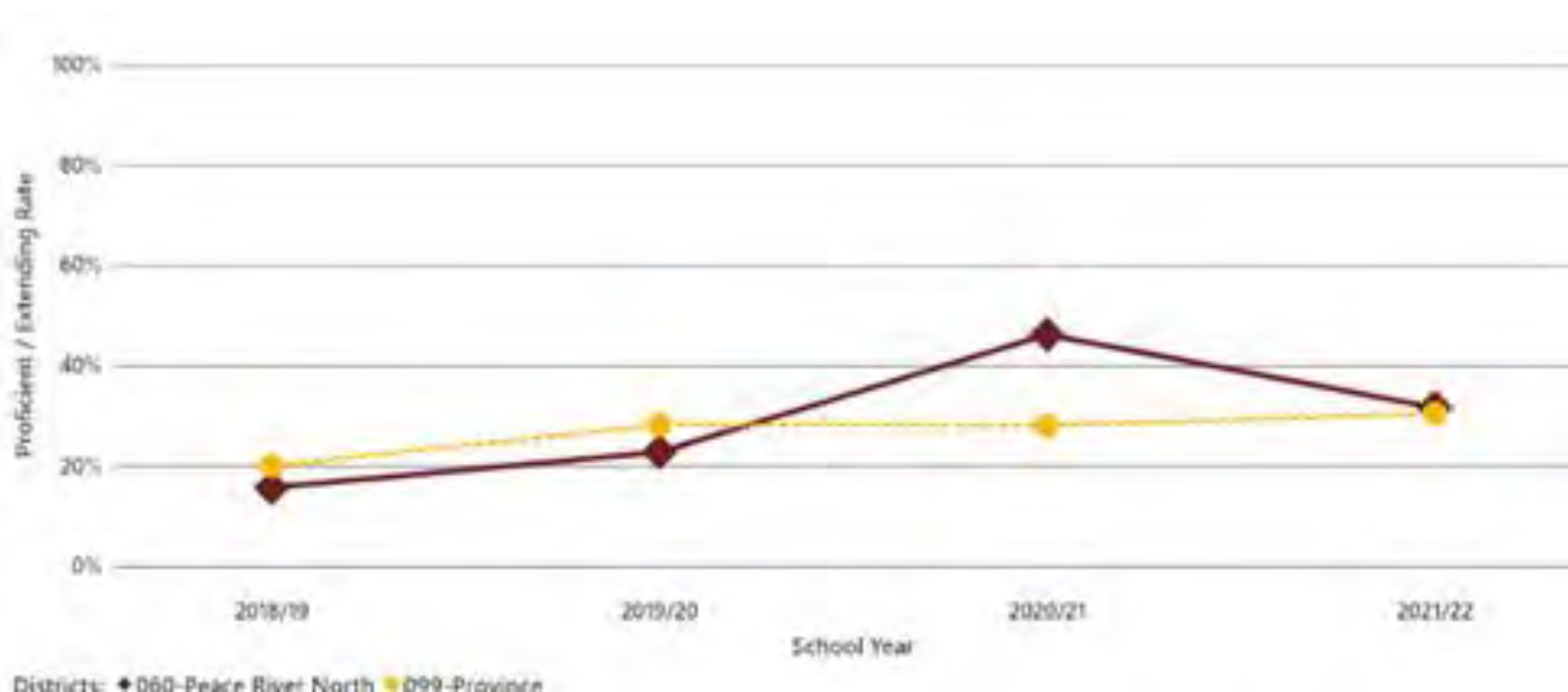
Grade 10 Numeracy: All Indigenous Students

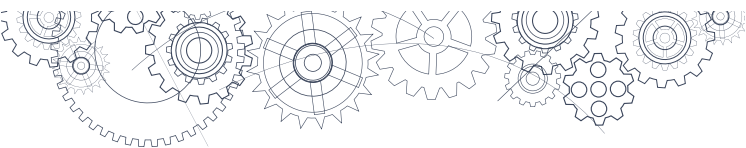


Grade 10 Numeracy: Indigenous students off reserve



Grade 10 Numeracy: Diverse Abilities





ASSESSMENT

Classroom Assessments

Classroom assessments continue to be the primary source of information about student learning. Feedback from ongoing assessments in the classroom can be immediate and personal, helping students identify areas of growth and set new learning goals. Classroom assessments are led by teachers using a variety of assessment methods.

Provincial Graduation Assessments

There are three Provincial Graduation Assessments: the **Grade 10 Numeracy Assessment**, the **Grade 10 Literacy Assessment**, and the **Grade 12 Literacy Assessment**. Francophone students wishing to obtain dual diplomas must compete additional literacy assessments in Grades 10 and 12, while French Immersion students seeking a dual diploma need to complete an additional literacy assessment at Grade 12.

Purpose

The Provincial Graduation Assessments ensure that all students have the literacy and numeracy skills developed across the provincial curriculum. The Provincial Graduation Assessments align with the curriculum and reflect international trends for large-scale assessments where there is a focus on the competencies required for students to be successful in the modern world.

The Provincial Graduation Assessments inform both student learning and system-level performance. These assessments measure the extent to which students are literate and numerate and provide students with information about their proficiency relative to the provincial curriculum. The Provincial Graduation Assessments also provide information to ensure public accountability, monitor student progress, and ensure that students meet curriculum requirements.

The Provincial Graduation Assessments measure the application of numeracy and literacy skills to realistic situations, learned across the course of the students' education, requiring them to employ the knowledge and skills considered to be essential for future success. The assessments look at students' ability to apply their knowledge and skills and to analyze, reason, and communicate effectively as they examine, interpret, and solve problems.



Policy Requirements for Provincial Graduation Assessments

Boards of education and independent schools are required to ensure students participate in Provincial Graduation Assessments. The Provincial Graduation Assessment requirements for all students are as follows:

- ✓ Students must complete both the Graduation Numeracy Assessment and Graduation Literacy Assessments as a requirement for graduation. Students cannot receive equivalency for the Provincial Graduation Assessments.
- ✓ In Grade 10:
 - Students are expected to write the Grade 10 Numeracy Assessment and the Grade 10 Literacy Assessment. (See [Graduation Requirements – for French Immersion/Francophone Dual Dogwood](#) for additional assessment requirements).
- ✓ In Grade 12:
 - Students are expected to write the Grade 12 Literacy Assessment. (See [Graduation Requirements – for French Immersion/Francophone Dual Dogwood](#) for additional assessment requirements).

There will be an opportunity for students to re-write the Provincial Graduation Assessments to improve their proficiency levels. Students may write a Provincial Graduation Assessment up to three times: the original attempt and two re-writes.

- ✓ The best outcome for each of the Provincial Graduation Assessments will be recorded on the student's transcripts.

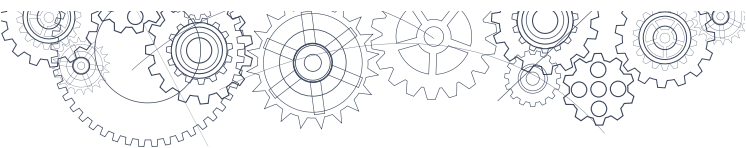
The assessments will be reported using the following proficiency levels:

Provincial Graduation Assessments			
Emerging The student demonstrates an initial understanding of the concepts and competencies relevant to the expected learning.	Developing The student demonstrates a partial understanding of the concepts and competencies relevant to the expected learning.	Proficient The student demonstrates a complete understanding of the concepts and competencies relevant to the expected learning.	Extending The student demonstrates a sophisticated understanding of the concepts and competencies relevant to the expected learning.

A student's best proficiency level for the Provincial Graduation Assessments will appear on the student's transcript. However, for the Grade 10 Literacy Assessment and the Évaluation de littératie de la 10^e année – Français langue première, the student's transcript will only indicate "RM" ("requirement met"), and not a proficiency level.

Guidelines – Provincial Assessment Adjudication

Adjudication is the official process that helps ensure that students with demonstrated needs for supports within educational settings have access to the same supports during the Provincial Graduation Assessments.



In B.C., adjudication allows the supports that are currently provided to students in the classroom setting (extra time and speech-to-text or text-to-speech software) to also be provided during the Provincial Graduation Assessments. Supports may be accessed by students on Provincial Graduation Assessments if the required supports:

- are routinely used and provided for classroom-based assessments (tests and assessments), which may be reflected in report card comments;
- have been recommended by the School Based Team (rather than an individual teacher, administrator, or other school staff member);
- have been recommended in consultation with a B.C. Association of School Psychologists (BCASP) certified school psychologist or B.C. Registered Psychologist (who may be part of the School Based Team); and
- are documented in an Individual Education Plan (IEP) or Student Learning Plan (SLP) and show use over time.

In addition, if use of the supports began during the secondary years, documentation is required in the form of:

- Standardized academic achievement results or a psycho-educational assessment report, and/or relevant reports from outside agencies that document the need for specific supports; and
- Report cards, School Based Team minutes, and/or other school records indicating the student's need for specific supports.

For more information on adjudication, please see the Handbook of Procedures for the Graduation Program at the link below:



<https://www2.gov.bc.ca/gov/content?id=4A965B725E45428C8E2022B4413C3D81>



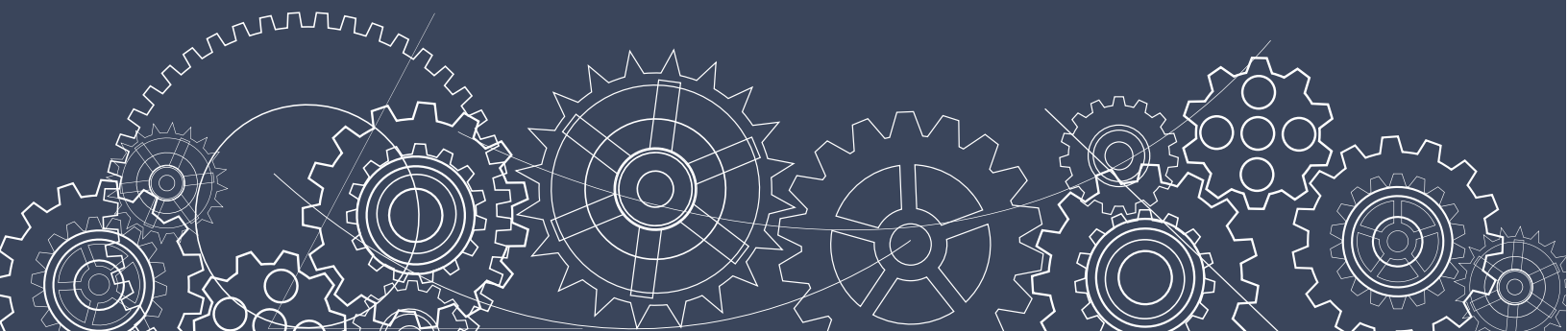


Grade 10 Literacy Assessment

SAMPLE A KEY, RUBRICS, AND SCORING GUIDE



Ministry of
Education and
Child Care



Grade 10 Literacy Assessment SAMPLE A KEY

Question Number	Depth of Knowledge Level	Point Value	Critical Reading	Correct Response
A-1	1	1		Era: Cainozoic / Period: Tertiary / Epoch: Pliocene
A-2	2	1	✓	C
A-3	1	2		Holocene / Anthropocene / Atomic Age / Cyanobacteria
A-4	2	1		A and C
A-5	2	1		1 100 years ago
A-6	1	1		C
A-7	3	1	✓	A
A-8	3	1	✓	A
A-9	2	1	✓	We depend on the oceans...
A-10	1	1		A
A-11	2	1		B
A-12	3	1		C
A-13	3	1		C*
A-14	3	1		D
A-15	3	6		constructed response question (see Scoring Guide)
A-16	3	12		constructed response question (see Scoring Guide)
B-1	2	1		<ul style="list-style-type: none"> ADHD – C: encourage walking in nature Asthma – A: plant more trees
B-2	3	1	✓	C
B-3	1	2		A:A:B:A
B-4	1	1		A:B:Z:Z**
B-5	3	1	✓	A
B-6	2	2		C:E:D:B:A
B-7	3	1	✓	C
B-8	3	1		C
B-9	2	1		A:B:A
B-10	1	1	✓	A
B-11	1	1		B
B-12	2	1	✓	A
B-13	3	1		B
B-14	3	12		constructed response question (see Scoring Guide)

*

A	B
C	D

** Z indicates that the response must not be selected.

Grade 10 Graduation Literacy Assessment

SAMPLE A RUBRICS AND SCORING GUIDE

Part A: Graphic Organizer – Rubric

3	The three response is proficient and demonstrates a complete understanding of the texts and task. <ul style="list-style-type: none">• <i>extracts and clearly communicates relevant information from texts and summarizes ideas</i>• <i>provides evidence and draws conclusions from the texts</i>• <i>expresses meaningful judgments and interpretations of the texts</i>
2	The two response is competent and demonstrates a straightforward understanding of the texts and task. <ul style="list-style-type: none">• <i>extracts and communicates some information from texts and lists ideas</i>• <i>offers adequate evidence for simple conclusions</i>• <i>expresses judgments about ideas from the texts</i>
1	The one response is developing and demonstrates a limited understanding of the texts and task. <ul style="list-style-type: none">• <i>extracts relevant words and phrases from the texts</i>• <i>attempts to draw conclusions</i>• <i>judgments may be unrelated to the texts or task</i>
0	The zero response is unacceptable and demonstrates a lack of understanding of texts and task. <ul style="list-style-type: none">• <i>The response is too short or is unrelated to the task.</i>
NR	No response.

Question A-15 (Graphic Organizer) – Scoring Guide

Based on your understanding of the texts, write a statement that summarizes the impact that humans have on the natural world.

- Because their actions can have permanent consequences in the natural world, humans must take responsibility for the choices they make.
- Humans must recognize their responsibility to care for the environment and other living species.
- Humans must acknowledge their interdependence with other living species in the world.

What examples from these texts support your summary statement?

What is the Anthropocene and Are We in It?

- Humans have had such a significant impact on our planet that it may be necessary to identify a new period in the Geological time scale. The suggested new name represents the negative effects human behaviour has had on the natural world.
- Scientists disagree about whether or not “Anthropocene” should replace “Holocene” as the name of the current geological time period. The names have typically been assigned in response to geological evidence found in the strata, but conflicting evidence makes the start date imprecise.
- Perhaps the exact naming of a new time period is less important than having a discussion about whether or not the name change is necessary. Humans are the only species that is aware of the effect it is having on the planet.

The Losing World

- Thousands of species face extinction. The loss will be devastating to all living creatures, including humans.
- Human survival depends upon other species in the natural environment. People must make a better effort to protect these important natural resources.
- The graphic suggests a pessimistic point of view given human’s willingness to take action to preserve the natural environment.

Living with Bears

- Traditional knowledge calls upon humans to see themselves as a species no more than equal to other species in the natural world. This point of view leads to greater understanding and respect for all living things.
- Humans must recognize the essential characteristics of other species around them. By understanding their habits and needs, humans are better prepared to co-exist with them.
- Attitudes that suggest humans are superior to other living species are certain to produce conflict. In seeing themselves as equals with other species, humans will learn to live in harmony with them.

Write a concluding statement about why these ideas matter.

- As humans become more aware of the devastating effects their actions are having on the natural world, they will finally make changes to help protect the environment.
- Although human activity is damaging the natural world permanently, many are taking steps to recognize and resolve the problem.
- Once humans recognize the problems they have created through ignorance or arrogance, they will begin to take responsibility for their actions.

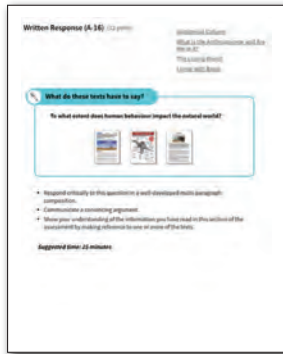
Part A: Written Response – Rubric

What do these texts have to say?

6	<p>The six response is superior in terms of content, understanding and/or written expression:</p> <ul style="list-style-type: none"> • Demonstrates an insightful understanding of the text(s) at an interpretive level. • Response is engaging and is supported with thoroughly developed details from the text(s); insightful conclusions are drawn. • The format and writing style are effective and demonstrate skillful control of language; despite its clarity and precision, the response need not be error-free.
5	<p>The five response is proficient in terms of content, understanding and/or written expression:</p> <ul style="list-style-type: none"> • Demonstrates a clear understanding of the text(s) at an interpretive level. • Response is convincing and is supported with purposefully chosen details from the text(s); effective conclusions are drawn. • The writing is well organized and reflects a strong command of the conventions of language; errors may be present but are not distracting.
4	<p>The four response is competent in terms of content, understanding and/or written expression:</p> <ul style="list-style-type: none"> • Demonstrates a clear understanding of the text(s); may be literal. • Response displays appropriate textual support; may rely heavily on paraphrasing; adequate conclusions are drawn. • The writing is organized and straightforward; conventions of language are usually followed, but some errors are evident.
3	<p>The three response is minimally acceptable in terms of content, understanding and/or written expression:</p> <ul style="list-style-type: none"> • Understanding of the text(s) may be superficial or partially flawed. • Response may be somewhat undeveloped and textual support may be meagre; conclusions are weak. • Writing communicates a sense of purpose, but errors in diction and/or conventions of language can be distracting.
2	<p>The two response is limited in terms of content, understanding and/or written expression:</p> <ul style="list-style-type: none"> • There is an attempt to address the topic but understanding of the text(s) or the task may be flawed. • Response and/or conclusions may be seriously underdeveloped and lacking sufficient textual support. • The meaning of the writing may be unclear due to recurring or distracting errors in diction and/or conventions of language.
1	<p>The one response is insufficient in terms of content, understanding and/or written expression:</p> <ul style="list-style-type: none"> • Topic is acknowledged but response is too brief to demonstrate understanding. • Response lacks textual support. • Errors in writing may render meaning unintelligible.
0	<p>The zero response is unacceptable in terms of content, understanding and/or written expression:</p> <ul style="list-style-type: none"> • Does not address the topic or simply restates the question.
NR	No response.

Question A-16 (What do these texts have to say?) – Scoring Guide

Note: The examples below are not exhaustive and students may find other evidence to support their ideas.



To what extent does human behaviour impact the natural world?

What is the Anthropocene and Are We in It?

- Human impact on the environment is of such magnitude that it may require the declaration of a new time period in geological history. (paragraph 2)
- The current period label may be outdated “because human-kind has caused mass extinctions...polluted the oceans...altered the atmosphere.” (paragraph 3)

- Limited evidence of human activity appears in the rock strata. This leads to questions about when a new period would be considered to begin. “...atomic era...radiation in soils...agriculture’s signature in Europe...A.D. 900” (paragraph 5)
- The start date may be irrelevant to the message. “...strong reminder to the general public that we are now having undeniable impacts...” (paragraph 6)
- The important idea is that humans are having a profound impact on the planet. “We’re the first species that’s become a planet-scale influence...” (paragraph 7)

The Losing World

- “experts from 193 countries agreed...imminent crisis”
- “58% of the coral reefs are potentially threatened by human activity”
- “40% of the oceans have been affected by human activities such as fishing and pollution”
- “\$500 billion is the contribution of ocean-based businesses to the global economy” but “0.8% of the world’s oceans are protected, and 0.08% constitute marine reserves.”

Living with Bears

- Humans should consider their attitude toward other living things. “...see yourself as an essential part of something larger.” (paragraph 1)
- Humans must recognize their place in the natural world. “...there are no greater or lesser beings or things.” (paragraph 1)
- The author urges the reader to accept a humble rather than confrontational role. “When you reside in bear country, you make a soul compact to coexist with them.” (paragraph 2)
- The author acknowledges the ability of humans to control the natural world, “When you’re out in the wild—or what’s left of the wild in the Western world...” (paragraph 3) but suggests that they have exerted this control to their own detriment. “Long before our world...driven, noisy, overpopulated place...many beings found respite in wild places.” (paragraph 3)
- The author feels negative emotions about human control over the natural world. “What does trouble me...bears losing their lives” (paragraph 5)
- The author lists negative effects of human life on the planet and reminds the reader that all living things experience these negative outcomes. (paragraph 8)
- The author suggests that bears teach us our place of belonging in “a web of life that needs all its parts to sustain itself.” (paragraph 9) The bear’s gift to humans is the reminder that we have the power to exercise our ability to control the natural environment in positive ways.

Part B: Written Response – Rubric

What do you have to say?

6	<p>The six response is superior in terms of approach to topic, originality of thought and/or use of language:</p> <ul style="list-style-type: none"> addresses the topic with creative insight, sophisticated understanding perspective is unique; ideas are convincing and skillfully developed writing style is effective and engaging; despite its clarity and precision, the response need not be error-free
5	<p>The five response is proficient in terms of approach to topic, originality of thought and/or use of language:</p> <ul style="list-style-type: none"> addresses the topic with some insight and in-depth understanding perspective demonstrates maturity; ideas are interesting and well developed writing reflects a strong command of the conventions of language; errors may be present, but are not distracting
4	<p>The four response is competent in terms of approach to topic, originality of thought and/or use of language:</p> <ul style="list-style-type: none"> addresses the topic with clear understanding perspective is consistent; ideas are supported but may be predictable or formulaic writing is straightforward but lacks variety; conventions of language are usually followed, but some errors are evident
3	<p>The three response is minimally acceptable in terms of approach to topic, originality of thought and/or use of language:</p> <ul style="list-style-type: none"> addresses the topic with some understanding perspective may be vague; ideas may be underdeveloped or disconnected writing communicates a sense of purpose but is simplistic; errors can be distracting
2	<p>The two response is limited in terms of approach to topic, originality of thought and/or use of language:</p> <ul style="list-style-type: none"> attempts to address the topic but understanding may be flawed perspective is missing or obscure; ideas are unsupported and/or unrelated writing may be unclear; recurring errors impede meaning
1	<p>The one response is insufficient in terms of approach to topic, originality of thought and/or use of language:</p> <ul style="list-style-type: none"> acknowledges the topic but is too brief to demonstrate understanding perspective and ideas are difficult to discern due to the brevity or limited scope of the response errors in writing may render meaning unintelligible
0	<p>The zero response is unacceptable in terms of approach to topic, originality of thought and/or use of language.</p> <ul style="list-style-type: none"> does not address the topic or simply restates the question
NR	No response.



Grade 10 Literacy Assessment

SAMPLE A



Ministry of
Education and
Child Care



The *Big Idea* will help you guide your thinking during the assessment.



Big Idea

The natural world plays an important role in people's lives.

PART A

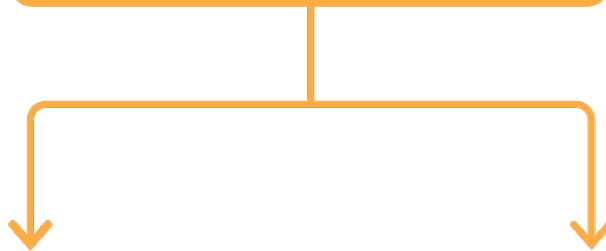
Human behaviour has an impact on the natural world.



PART B

Humans have always had an important connection to nature.

Writing Pathway



1

Humans need to learn how to be part of nature.

2

People benefit from their relationships with animals.



Big Idea

The natural world plays an important role in people's lives.



PART A

Suggested Time: 65 minutes

Human behaviour has an impact on the natural world.



In this section you will:

- read and analyze a variety of texts
- answer selected response questions worth fifteen points
- complete a graphic organizer worth six points
- complete a written response worth twelve points

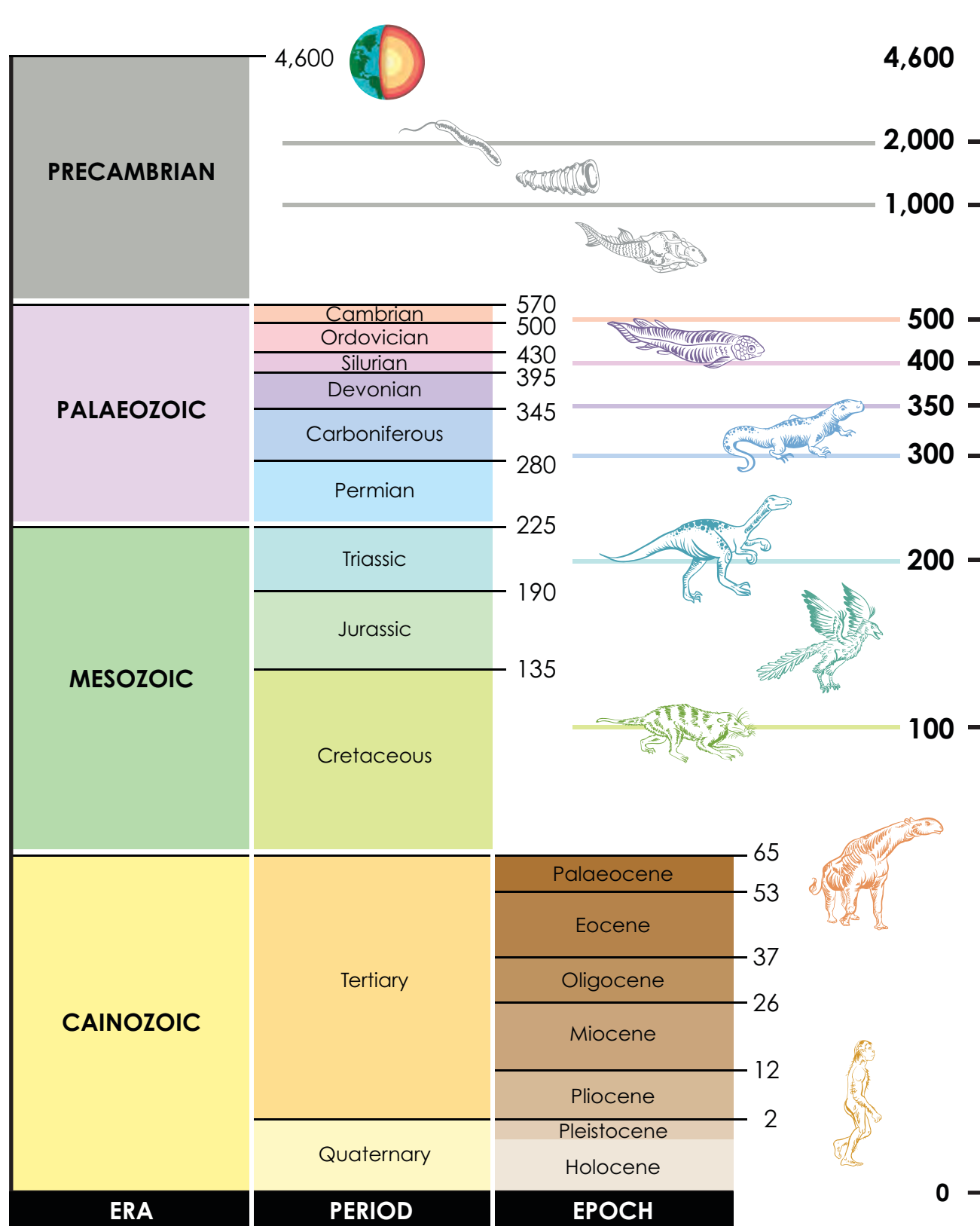


In the following texts

Scientists are examining the human impact on Earth's geological periods.

Geological Column

Time, in millions of years before the present



Select the era, period, and epoch appropriate for the event described.

Event		
Scientists discover a human jaw bone in Ethiopia dating back 2.8 million years.		

Era	Period	Epoch
<input type="radio"/> Precambrian	<input type="radio"/> Cambrian	<input type="radio"/> Palaeocene
<input type="radio"/> Palaeozoic	<input type="radio"/> Devonian	<input type="radio"/> Oligocene
<input type="radio"/> Mesozoic	<input type="radio"/> Tertiary	<input type="radio"/> Pliocene
<input type="radio"/> Cainozoic	<input type="radio"/> Quaternary	<input type="radio"/> Pleistocene

Which skill is necessary to correctly understand this Geological Column?

- ☐ interpreting the use of colour
- ☐ analyzing the size of the illustrations
- ☐ recognizing the compressed scale of the timeline

What Is the Anthropocene and Are We in It?

Efforts to label the human epoch have ignited a scientific debate between geologists and environmentalists



Illustrated by Stephanie Dalton Cowan

By Joseph Stromberg
SMITHSONIAN MAGAZINE
JANUARY 2013

Have human beings permanently changed the planet? That seemingly simple question has sparked a new battle between geologists and environmental advocates over what to call the time period we live in.

According to the International Union of Geological Sciences (IUGS), the professional organization in charge of defining Earth's time scale, we are officially in the Holocene ("entirely recent") epoch, which began 11,700 years ago after the last major ice age.

But that label is outdated, some experts say. They argue for "Anthropocene"—from *anthropo*, for "man," and *cene*, for "new"—because human-kind has caused mass extinctions of plant and animal species, polluted the oceans and altered the atmosphere, among other lasting impacts.

Anthropocene has become an environmental buzzword ever since the atmospheric chemist and Nobel laureate Paul Crutzen popularized it in 2000. This year, the word has picked up velocity in elite science circles: it appeared in nearly 200 peer-reviewed

articles, the publisher Elsevier has launched a new academic journal titled *Anthropocene*, and the IUGS convened a group of scholars to decide by 2016 whether to officially declare that the Holocene is over and the Anthropocene has begun.

- 5 Many stratigraphers (scientists who study rock layers) criticize the idea, saying clear-cut evidence for a new epoch simply isn't there. "When you start naming geologic-time terms, you need to define what exactly the boundary is, where it appears in the rock strata," says Whitney Autin, a stratigrapher at the SUNY College of Brockport, who suggests Anthropocene is more about pop culture than hard science. The crucial question, he says, is specifying exactly when human beings began to leave their mark on the planet: The atomic era, for instance, has left traces of radiation in soils around the globe, while deeper down in the rock strata, agriculture's signature in Europe can be detected as far back as A.D. 900. The Anthropocene, Autin says, "provides eye-catching jargon, but from the geologic side, I need the bare bones facts that fit the code."

Some Anthropocene **proponents** concede that difficulty. But don't get bogged down in the mud, they say, just **stipulate** a date and move on. Will Steffen, who heads Australia National University's Climate Change Institute and has written articles with Crutzen, recommends starting the epoch with the **advent** of the industrial revolution in the early 1800s or with the atomic age in the 1950s. Either way, he says, the new name sends a message: "[It] will be another strong reminder to the general public that we are now having undeniable impacts on the environment at the scale of the planet as a whole, so much so that a new geological epoch has begun."

To Andrew Revkin, a *New York Times* reporter (now blogger) who suggested a similar term in 1992 that never quite caught on ("Anthrocene"), it's significant that the issue is being debated at all. "Two billion years ago, cyanobacteria oxygenated the atmosphere and powerfully disrupted life on Earth," he says. "But they didn't know it. We're the first species that's become a planet-scale influence and is aware of that reality. That's what distinguishes us."

Joseph Stromberg. "What Is the Anthropocene and Are We in It?" January 2013.
<https://www.smithsonianmag.com/science-nature/what-is-the-anthropocene-and-are-we-in-it-164801414/>

Students completing the assessment electronically will be able to access the following glossary items with a mouseover

proponents: people who support an idea

stipulate: to state

advent: beginning of

Select the correct term for each description:

epoch that began approximately 12,000 years ago

- Anthropocene
- Epoch
- Atomic Age
- Holocene
- Cyanobacteria
- Industrial Revolution

term meaning “New Man”

- Anthropocene
- Epoch
- Atomic Age
- Holocene
- Cyanobacteria
- Industrial Revolution

left traces of radiation in geological layers

- Anthropocene
- Epoch
- Atomic Age
- Holocene
- Cyanobacteria
- Industrial Revolution

organisms responsible for oxygen in the atmosphere

- Anthropocene
- Epoch
- Atomic Age
- Holocene
- Cyanobacteria
- Industrial Revolution

Question A-4 (1 point)**What Is the Anthropocene and Are We in It?**

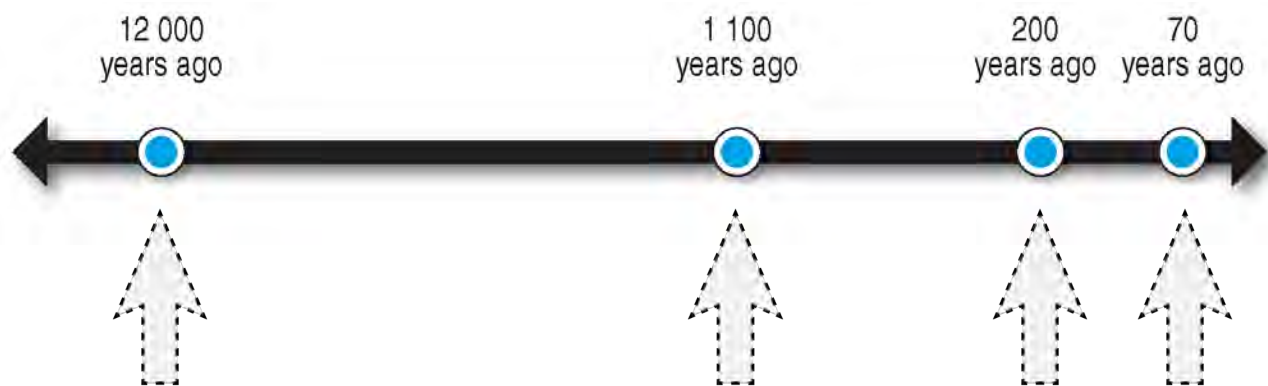
What key factors determine whether scientists will accept or reject the naming of a new “Anthropocene” epoch?

Select **the two** that apply.

- ☐ the scientists’ particular areas of study
- ☐ the specific technologies that scientists use
- ☐ the type of scientific evidence that is available
- ☐ the origin of the scientific name being considered

Question A-5 (1 point)**What Is the Anthropocene and Are We in It?**

Select the point on the timeline to approximate when the impact of agriculture in Europe became noticeable in the geological record.



Why does Andrew Revkin agree that the name of the current epoch should be changed?

- ☐ The new name highlights the fragile nature of human life.
- ☐ The new name emphasizes the interdependence of humans and cyanobacteria.
- ☐ The new name acknowledges that humans are conscious of the effect they have on their surroundings.



In the following text

Representatives from 193 countries met to discuss the relationship between humans and the environment.

The Losing World

At a UN convention, experts from 193 countries agreed that the planet is staring at an imminent crisis.

3,947

CRITICALLY
ENDANGERED
SPECIES

5,766

ENDANGERED

10,104

VULNERABLE

63

EXTINCT IN
THE WILD

801

WIPED
OUT

Total species: 63,837

WE ARE IN
THE MIDST OF THE
BIGGEST EXTINCTION
CRISIS SINCE DINOSAURS
WERE WIPED OUT
65 MILLION
YEARS AGO

UNDER
THREAT

41% AMPHIBIANS
33% CORAL REEFS
25% MAMMALS
20% TREES
13% BIRDS

Greater one-horned rhino
is one of the most threatened
species in the Himalayas.
Others include Bengal tiger,
Asian elephant, red panda
and snow leopard

THE 10 MOST VULNERABLE

- Arctic foxes • Clownfish • Koalas
- Emperor penguins • Leatherback turtles • Staghorn corals • Ringed seals • Quiver trees • Salmon
- Beluga whales

25%

of marine fish species are found at coral reefs, which cover less than 1% of the earth's surface

4.7 GtC

Amount of carbon (gigatonnes) captured by natural ecosystems in a year

58%

OF THE CORAL REEFS ARE POTENTIALLY THREATENED BY HUMAN ACTIVITY

7,260

polar bears will be left by 2050, of the current population of 22,000

40%

of the oceans have been affected by human activities such as fishing and pollution

\$500 billion

is the contribution of ocean-based businesses to the global economy. Half of the world's population lives in the coastal zone

91%

OF THE GLACIERS ARE RECEDING

0.8%

of the world's oceans are protected, and 0.08% constitute marine reserves

Sources: International Union for Conservation of Nature, World Wide Fund for Nature, Ministry of Environment and Forests
Businessworld. October 22, 2012

Why is it appropriate that humans have been placed at the centre of the infographic?

- ☐ to illustrate the relationship between humans and other species
- ☐ to show that humans are unaware of the dangers around them
- ☐ to highlight that humans have little impact on other living things

Question A-8 (1 point)

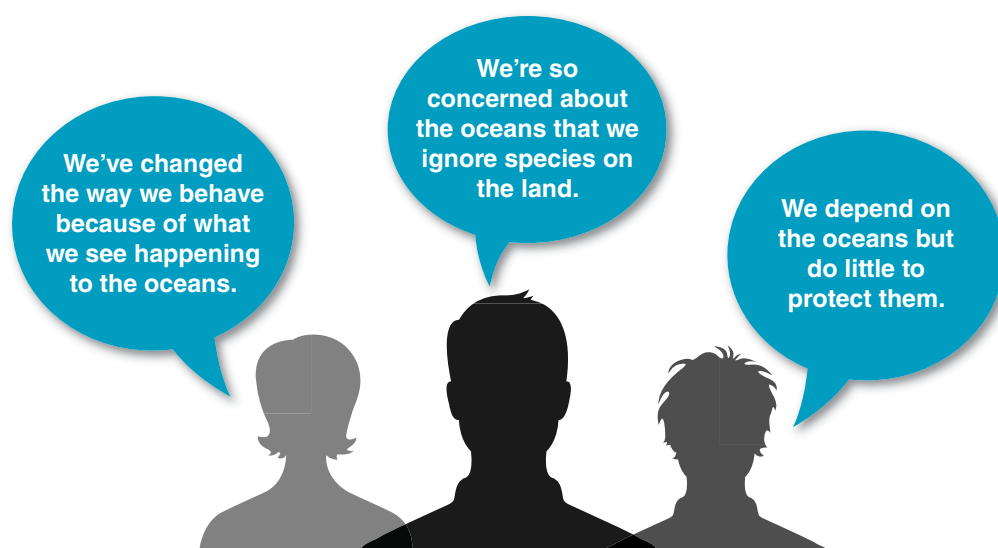
What is the effect of choosing the image of a dinosaur to organize the graphic?

- ☐ It highlights a previous example of extinction.
- ☐ It illustrates all the species that have been lost.
- ☐ It shows that land animals face the greatest danger.

Question A-9 (1 point)

Which opinion about oceans is supported by information found in the graphic?

Click on the speech bubble to indicate your response.





In the following text

Traditional First Peoples knowledge provides a perspective on the connections between humans and the natural world.

Living with Bears

by Richard Wagamese



The old ones say that humility is the foundation of everything. Nothing can exist without it. Humility is the ability to see yourself as an essential part of something larger. It is the act of living without grandiosity. Humility, in the Ojibway world, means “like the earth.” The planet is the **epitome** of a humble being, with everything allowed the same opportunity to grow, to become. Without the spirit of humility there can be no unity, only discord. Humility lets us work together to achieve equality. Humility teaches that there are no greater or lesser beings or things. There is only the whole. There is only the great, grand clamour of our voices, our spirits, raised together in song.

* * *

The bears start coming down from the high ground in late summer, when the mountain-ash berries, rosehips, saskatoon berries, blackberries and wild raspberries are ripe and fat. We see them on the roadside or lumbering along the hillocks, and as the days pass they become a fixture in our yard. We don’t find it troubling. When you reside in bear country, you make a soul compact to coexist with them. You learn to be watchful on your morning walks and to make sure your property isn’t bear-attractive. You learn bear time. After all, this is their land. They were here first. If anyone respects that statement, it’s an **Indian**.

When you’re out in the wild—or what’s left of the wild in the Western world—there is a palpable sense of the unseen. You get the feeling you’re being watched from the trees. That can be eerie at first, but once you’re used to it, it’s rather comforting. This is the original condition of things. Long before our world became the technologically driven, noisy, overpopulated place it is now, many beings found respite in wild places, and people felt a natural connection to the land.

We can opt for the convenience of machinery today, using quads and ATVs and dirt bikes to get us deep into the back country, but nothing connects you to the land as

easily as walking. Hiking in the acute silence up here in the mountains, you always sense the possibility of bears. For me, that's magical. Walking on the land also keeps you alert to things you would ordinarily miss. You hear things you are usually too busy to register, experience yourself as a true part of nature. Alone in the wild, you become keenly aware of who and what you are.

- 5 So I'm not troubled by the presence of bears. What does trouble me, though, is news of bears losing their lives after run-ins with those who occupy their territory. Some people think of bears as garbage-raiding pests or as vile predators intent on snatching the cat, the dog or the children. I'm not afraid of bears, but I am respectful of them. At our place, we keep our garbage out of harm's way until it's dump day and we can dispose of it. We're careful with our barbecue. Bears are prowlers and foragers, and we need to understand that.

My people say that the bears are protectors. In our Ojibway clan system, the Bear Clan is responsible for security and law. As totems, bears symbolize strength, fortitude, justice and wisdom. When my people see a bear in the bush, they always stop and look at it before moving away. In the Ojibway world, a bear is a spirit being, a special teacher. I've learned over the years to hold them in the same regard.

This morning as I wrote, Molly the dog growled. I looked out to the end of our driveway and saw a juvenile male bear reared up on his hind legs chewing on leaves and berries. He was a marvellous specimen. His coat was thick and unmatted, and he had the beginnings of the rounded shape that comes from good feeding in preparation for the long hibernation to come. We watched him until he finally trotted through the yard, across the gravel road and off into the trees. He was one bear in a country of them. I knew he would find a place to hunker down as the morning traffic increased and the high August heat built up. In the cool of evening, he'd emerge again to forage in the berry bushes that surround us. That's just how it is.

Every day now, the oceans are becoming more acidic. Polar ice is melting. Droughts, floods, earthquakes and wildfires are increasingly commonplace. Bees are disappearing, and there are fewer salmon in the spawning grounds. These are only some of the rapid changes happening all around us. Just as our human lives are affected by these changes, so are the lives of the animals that share our planet.

Bears are a grounding tool for me. Whenever I see one, I am reminded that the old wisdom has something significant to impart about how I negotiate my way in the world. I belong to a web of life that needs all its parts to sustain itself. The ancient teachings are not a romantic throwback to a vanished lifestyle but a resonant reminder of our contemporary responsibilities.

- 10 Bears are protectors, my people say, and this presence reminds us that the natural world urgently needs our protection. That is the bear's particular gift to each of us.

"Living with Bears" by Richard Wagamese from *One Story, One Song*.
2015, Douglas & McIntyre. Reprinted with permission from the publisher.

Students completing the assessment electronically will be able to access the following glossary items with a mouseover


epitome: a perfect example

Indian: First Peoples; “Indian” is not the preferred term

Question A-10 (1 point)

Living with Bears

The word



harmony

sympathy

consistency

best expresses the meaning of “humility” in “Living with Bears.”

According to the author, what is the “gift” that bears provide to humans?

Click on the box to indicate your response.



*a glimpse
of our
origins in
simpler
times*



*a reminder
of our
obligations
to other
species*



*a sense
of our
unique
place in
the world*

Which observation about modern life is expressed throughout “Living with Bears”?

- ☐ People find happiness through material possessions.
- ☐ Life was more fulfilling in the past than it is in the present.
- ☐ Today’s conveniences disconnect us from the natural world.

Which graphic best symbolizes Wagame's view of the world?

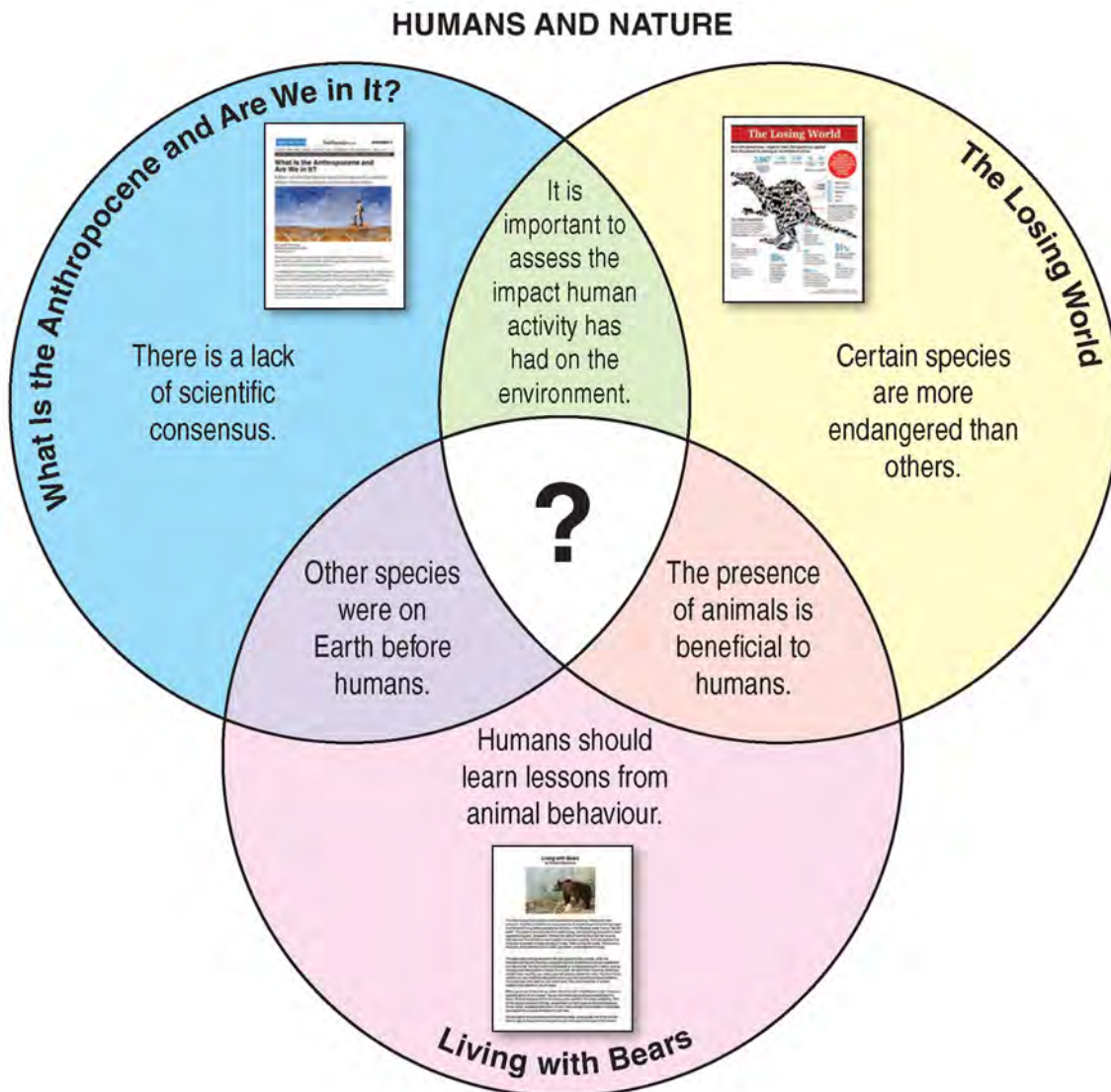
Click on the graphic to indicate your response.



Question A-14 (1 point)

Which statement should be in the centre of this Venn Diagram?

- ☐ Humans may deny that environmental change is inevitable.
- ☐ Humans often have a desire to categorize the world around them.
- ☐ Humans can exercise their dominance over nature in positive ways.
- ☐ Humans should take responsibility for their relationship with the environment.






Graphic Organizer (A-15) (6 points)

Suggested time: 10 minutes

Complete this chart to summarize your understanding of the ideas in these texts.

Based on your understanding of the texts, write a statement that summarizes the impact that humans have on the natural world.

Texts	What examples from these texts support your summary statement?
 What Is the Anthropocene and Are We in It?	
 The Losing World	
 Living with Bears	
Write a concluding statement about why these ideas matter.	

Written Response (A-16) (12 points)



What do these texts have to say?

To what extent does human behaviour impact the natural world?



- Respond critically to this question in a well-developed multi-paragraph composition.
- Communicate a convincing argument.
- Show your understanding of the information you have read in this section of the assessment by making reference to one or more of the texts.

Suggested time: 25 minutes



Big Idea

The natural world plays an important role in people's lives.



PART B

Suggested Time: 65 minutes

Humans have always had an important connection to nature.

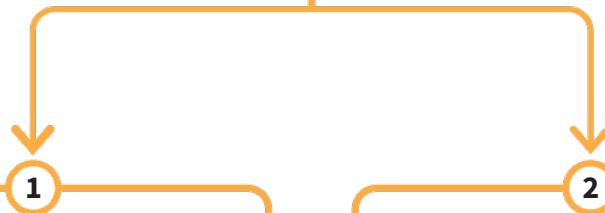


In this section you will:

- read and analyze a variety of texts
- complete selected response questions worth fifteen points
- select a Writing Pathway to complete your extended written response worth twelve points



Writing Pathway



1

Humans need to learn how to be part of nature.

2

People benefit from their relationships with animals.



In the following texts

There are many benefits to having a connection with nature.



The Benefits of Nature

Ontario's Conservation Areas
Contribute to Healthy People

THE CHALLENGES...

ADHD
affects
5-10%
of Canadian Children



of Canadian
Teenagers are
Not Active
Enough



of Children meet
Canadian
Physical Activity
Guidelines



9 MILLION+
Canadians suffer from some form of
DIABETES



2/3 of Canadians
are **Vitamin D**
Deficient

Nearly **23%**
of Canadians report a high degree of
LIFE STRESS



Every **7 MINUTES**
in Canada, someone dies from
Heart Disease or Stroke

CONSERVATION AREAS & OUTDOOR RECREATION

Available Activities Include



270+

Conservation Areas



6,800,000

Visitors in 2011



2,500 km

of Trails Owned and Operated

CALORIES

Burned on an Hour Long Hike

435
(*average for
153 lb female)



A Hike a Day...

Did you know doctors have been prescribing hikes? Stepping into Nature has been proven to provide health benefits such as: increased energy and immunity, increased weight loss and fitness, increased Vitamin D production, and reduced risk of diabetes, heart attacks, and cancer.



An increasing body of evidence suggests that one of the best ways to improve your mental well-being is by simply spending more time outdoors.

20 MINUTES

WALKING IN NATURE
= Concentration boost
in children with ADHD

A daily walk in nature can be as effective in treating mild cases of depression as taking an antidepressant

If you have
GREEN SPACE
within 1 km
from home
you're...

30%
Less Likely to Suffer From
ANXIETY

25%
Less Likely to Suffer From
DEPRESSION

Nature provides multiple goods and services that sustain our health and well-being, including food, materials, (like wood) fuel, clean air, drinking water, flood prevention, and also offers recreational, cultural, and spiritual opportunities.

HEALTHY BY NATURE | TREES & FORESTS

For Every
343
TREES / KM²

Asthma
Rates
Drop
By

25%

in Young Children

Collectively Own Nearly



917 km²
of Forests



Planted Over

3,000,000
TREES IN 2011

1 TREE

Has the Cooling Effect of

10 Air Conditioners

HEALTHY BY NATURE | WETLANDS & GREAT LAKES

1 ACRE
of Wetland =

1,000,000 GAL
of Stored Flood Water

= **1.5** Olympic Sized



Swimming Pools of Water

Conservation
Authorities own
92,471
ACRES OF
WETLANDS

92.5
BILLION
GALLONS

of Stored Flood Water

(or **140,108** Olympic
Sized Swimming Pools)



THE GREAT LAKES &
ST. LAWRENCE RIVER
ECOSYSTEM

Breaks Down our Wastes
Reduces the Risks of Flood Damage
Provides Food Sources & Recreation Opportunities
Helps **Moderate** Extreme Weather
Purifies our Water and Air

More than
80%
of Ontarians



WWW.CONSERVATIONONTARIO.CA

Select the suggested strategy for coping with the challenges listed in the left column below.

Challenge	Strategy
ADHD (Attention Deficit Hyperactivity Disorder)	<div>plant more trees</div> <div>restore damaged wetlands</div> <div>encourage walking in nature</div> <div>create green spaces in every residential area</div>
asthma	<div>plant more trees</div> <div>restore damaged wetlands</div> <div>encourage walking in nature</div> <div>create green spaces in every residential area</div>

How might the source of the information in this infographic limit its usefulness to western Canadians?

The information is focused on

▼

a global health challenge.

a need for water conservation.

a specific region of the country.

Connecting with Nature Boosts Creativity and Health

Richard Louv explains how society can overcome nature-deficit disorder.

By Brian Clark Howard, National Geographic
PUBLISHED JUNE 30, 2013



A young girl gazes at the desert landscape. Photograph by John Burchman, National Geographic

“I’ve been arguing for a while that connection to nature should be thought of as a human right,” Richard Louv told the crowd assembled in the courtyard of National Geographic headquarters in Washington, D.C., on Wednesday. Louv was there to inspire the staff about the benefits of spending time outdoors.

Louv, the author of the bestsellers *Last Child in the Woods* (2005) and *The Nature Principle* (2011), coined the term “nature-deficit disorder” to describe the loss of connection children increasingly feel with the natural world. Nature-deficit disorder is not a clinically recognized condition, he explains, but rather a term to evoke a loss of communion with other living things. Nevertheless, he argues, nature-deficit

disorder affects “health, spiritual well-being, and many other areas, including [people’s] ability to feel ultimately alive.”

The causes of the disorder include loss of open space, increasingly busy schedules, an emphasis on team sports over individualized play and exploration, competition from electronic media, and what Louv and others call a “culture of fear,” in which people are afraid to visit natural areas or even go outside due to heavy media coverage of violent events.

To dive deeper into Louv’s ideas, National Geographic sat down with him for a few questions.

Can you share some specific examples of how a connection to nature improved someone’s life?

- 5 [National Geographic Emerging Explorer] Juan Martinez is one example. He grew up in South Central Los Angeles, where he was headed for gangs and trouble. A principal told him he’d have to go to detention or join the eco club. He thought the club sounded like a bunch of nerds, but he joined. He resented it at first, but then had an assignment to grow something.

He had seen his mother break up concrete behind their house to grow chilis to eat. So he grew a jalapeño chili plant and took it home to show her that he could nurture life too. That plant, and later an eco club trip to the Grand Tetons, changed his life. He is now an environmentalist and head of the Natural Leaders Network, which is part of the Children & Nature Network. He is also a National Geographic explorer and has spoken at the White House twice.

So nature can transform your life. He found not only nature, he found people through nature. He reconnected to South Central in a new way.

How can city dwellers connect with nature?

As of 2008 more people lived in cities than the countryside. That marked a huge moment in human history, and it means one of two things: Either the human connection to nature will continue to fade, or it means the beginning of a new kind of city.

One way is through “biophilic design” [nature-inspired design], which is the incorporation of nature where we live, work, learn, and play, not only as something we drive an hour to visit. Not only parks, but also in the way we design our neighborhoods, our backyards, and our buildings.

It doesn’t seem to matter what someone’s politics or religion is, they want to tell me about the treehouse they had as a kid, if they are old enough—for the younger people that is less likely to be true. This is the only issue I’ve seen that brings people together, because nobody wants to be in the last generation where it’s considered normal for kids to go outdoors.



- 10 I believe cities can become engines of biodiversity. It starts with planting a lot of native plants, which revive the food chain and bring back butterfly and bird migration routes.

The word “sustainability” is problematic, because to most people it means stasis, survival, and energy efficiency. We have to do those things, but that only goes so far in igniting the imagination. Increasingly, I talk about a “nature-rich society,” a different way to look at the future that is not just about survival, but about something much better.

You have written about the impacts of “nature time” on problems like anxiety, depression, ADD, and obesity. How important is that?

If you look at a new body of research on depression, ADD, physical health, child obesity, and the epidemic of inactivity, nature is a good antidote to all of that. I didn't coin it, but I like the phrase “sitting is the new smoking,” because new evidence shows that sitting long hours every day can have serious health risks similar to those caused by smoking.

Researchers at the University of Illinois are investigating whether time in the woods could be used to supplement treatment of ADD. A study at the University of Kansas found that young people who backpacked for three days showed higher creativity and cognitive abilities. People in hospitals who can see a natural landscape have been shown to get better faster.

As an antidote, we need to figure out ways to increase nature time even as technology increases. It has to be a conscious decision.

Speaking of technology, how much are “screens” like TV, the Internet, video games, and smartphones to blame for keeping kids indoors?

- 15 I always resist demonizing technology and video games, specifically, partly because when people write about this issue they go immediately to that. But then they ignore these other things, like “stranger danger” [Louv has argued that sensationalist media has made parents fearful of letting children go outside] and bad urban design, the fact that our education system needs a lot of work, the fact that we are canceling recess and field trips—there are a lot of other reasons out there.

Having said that, there's no doubt that electronics have something to do with this. The Kaiser Foundation found that kids spend 53 hours a week plugged in to some kind of electronic medium, and I imagine that's true of adults too. I have an iPhone and iPad, I spend a lot of time with screens, but I think the more high-tech our lives become, the more nature we need as a balancing agent.

This interview has been edited and condensed.

Brian Clark Howard. “Connecting with Nature Boosts Creativity and Health.”
National Geographic. 30 June 2013.

Students completing the assessment electronically will be able to access the following glossary items with a mouseover

stasis: state of inactivity

Question B-3 (2 points)

Connecting with Nature Boosts Creativity and Health

Label the ideas presented in each quotation from the article as either a problem or a solution.

...nature-deficit disorder affects “health, spiritual well-being, and many other areas, including [people’s] ability to feel ultimately alive.” (paragraph 2)

Problem

Solution

... loss of open space, increasingly busy schedules, an emphasis on team sports over individualized play and exploration, competition from electronic media, and what Louv and others call a “culture of fear”... (paragraph 3)

Problem

Solution

It starts with planting a lot of native plants, which revive the food chain and bring back butterfly and bird migration routes. (paragraph 10)

Problem

Solution

The Kaiser Foundation found that kids spend 53 hours a week plugged in to some kind of electronic medium, and I imagine that’s true of adults too. (paragraph 16)

Problem

Solution

What advice does Richard Louv give for combatting “nature-deficit disorder”?

Select **the two** that apply.

- ☐ Create nature-based education programs.
- ☐ Design cities that incorporate elements of nature.
- ☐ Promote organized sporting activities to prevent disease.
- ☐ Develop applications that integrate technology with nature.

Select the idea that the tree house mentioned in the article's sidebar represents.





In the following text

Social media sometimes reflects a connection between people and other living things.

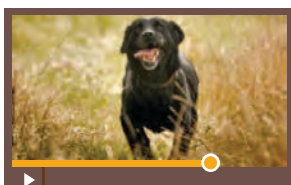




ANIMALS GO VIRAL ON YOUTUBE



First we had...



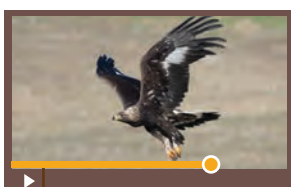
Fenton the Dog

This labrador sends his owner crazy as he chases deer in the park

8.6m views

39,928 likes

David Allen the Emmy award winning director remade the famous video, this time featuring Fenton chasing an elephant, ostrich and t-rex!



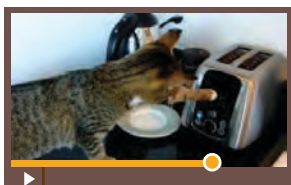
Golden Eagle Snatches Kid

Golden eagle tries to snatch a baby in Montreal – real or a hoax?

42.3m views

83,195 likes

It turns out this video was just a hoax created by animation students, but it went viral all the same.



Cat vs Toaster

A cat learns the hard way not to mess with kitchen appliances

3.4m views

10,561 likes

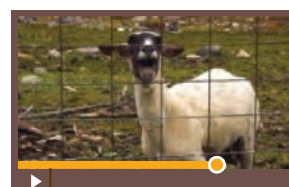
Then goats started to take over!!

The Ultimate Goat Edition Supercut

A compilation of some of the most popular songs interrupted by goats, inspired by the Taylor Swift original

9.3m views

86,000 likes

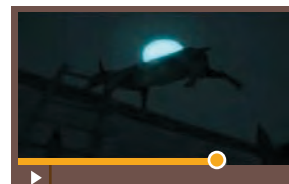


Laddergoat

A virtual goat has the gamer in fits of laughter and leads him to say the famous line "oh laddergoat, you so random"

6m views

57,423 likes



They even sing Happy Birthday to you...



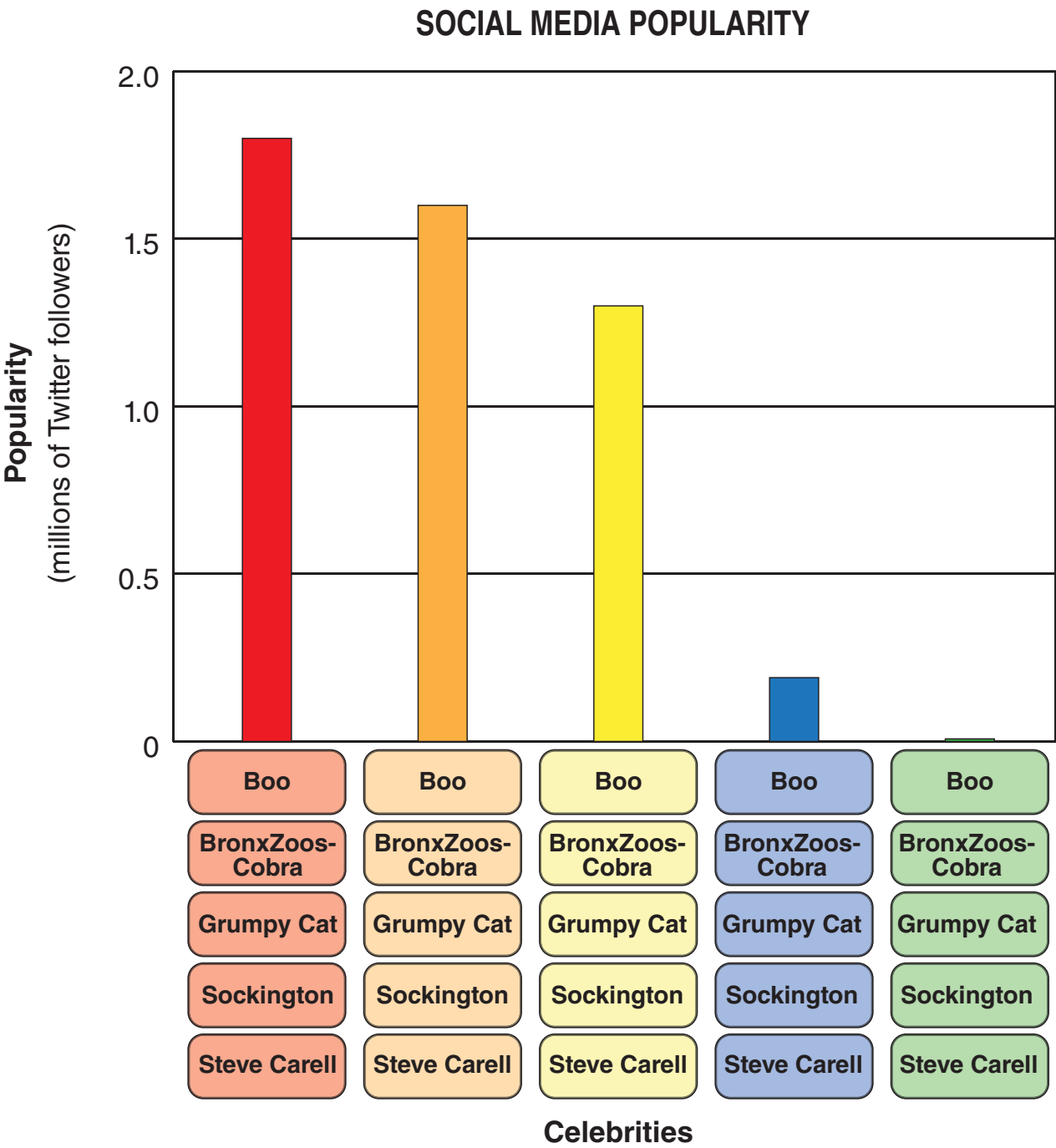
Chipmunks – Happy Birthday to you!!!

55m views

50,981 likes

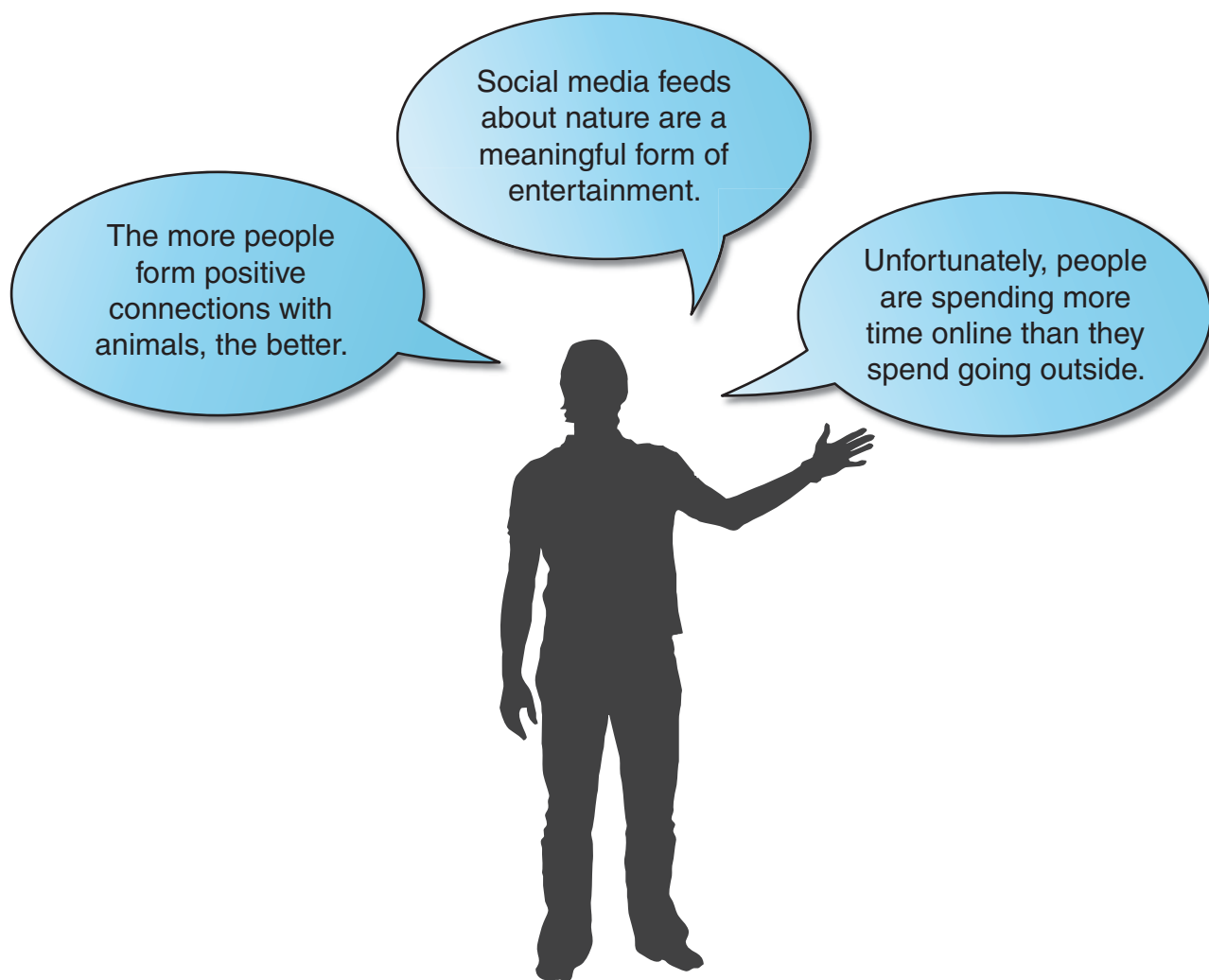
Source: Edgemere Ltd.

Select the appropriate label for each of the columns in the bar graph.



Which comment would the author of “Connecting with Nature Boosts Creativity and Health” most likely make about the people viewing social media feeds about animals?

Click on the speech bubble to indicate your response.



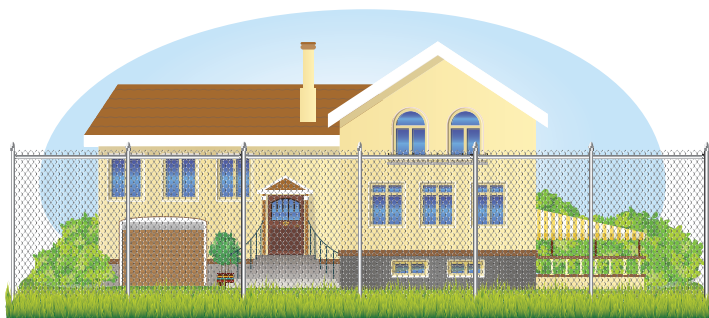


In the following text

Humans and other species often have to find ways to co-exist.

The Invaders

by James A. Michener



In the summer of 1968 a family of immigrants—mother, father, four daughters—moved quietly into the oil town of Larkin, Texas, and within three weeks had the owners of better-class homes in a rage. They were night people, always a bad sign, who seemed to do most of their hell-raising after dark. They operated as a gang, and what infuriated the townsfolk particularly was that they seemed to take positive joy in their **depredations**.

They were armadillos, never known in this area before, a group of invaders who had moved up from Mexico, bringing irritation and joy wherever they appeared. The indictment involving the digging up of lawns and the making of deep holes was justified, for no animal could dig faster than an armadillo, and when this mother and her four daughters turned themselves loose on a neat lawn or a nicely tilled vegetable garden, their destruction could be awesome.

“Straight down,” Mr. Kramer said, “they can dig faster than I can with a shovel.”

Mr. Kramer was a sixty-two-year-old former member of an oil crew who had always loved nature and who had poked his bullet-cropped, sandy-haired head into all sorts of corners.

- 5 The first armadillos to reach Larkin were identified on a Tuesday, and by Friday, Mr. Kramer had written away for three research studies on the creatures. The more he read, the more he grew to like them, and before long he was defending them against their detractors, especially to those whose lawns had been excavated: “A little damage here and there, I grant you. But did you hear about what they did for my rose bushes? Laden down with beetles they were. Couldn’t produce one good flower, even with toxic sprays. Then one night I look out to check the moon, three-quarters full, and I see these pairs of beady eyes shining in the gloom, and across my lawn come these five armadillos, and I say to myself: ‘Oh, oh! There goes the lawn!’ but that wasn’t the case at all. Those armadillos were after those beetles, and when I woke up in the morning to check the rain gauge, what do you suppose? Not one beetle to be found.”

Mr. Kramer defended the little creatures to anyone who would listen, but not many cared: “[The armadillo] was made to police the garden and knock off the pests.”

But it was when he extolled the beauty of the armadillo that he lost the support of even the most sympathetic Larkin citizens, for they saw the little animal as an awkward, low-

slung relic of some past geologic age that had mysteriously survived into the present; one look at the creature convinced them that it should have died out with the dinosaurs, and its survival into the twentieth century somehow offended them. To Mr. Kramer, this heroic persistence was one of the armadillo's great assets, but he was even more impressed by the beauty of its design.

"Armadillo? What does it mean? 'The little armored one.' Nothing like it in the rest of the animal kingdom. Real relic of the dinosaur age."

How beautiful, how mysterious the armadillos were when one took the trouble to inspect them seriously, as Mr. Kramer did. They were **hallowed** creatures, for they had seen the earth before man arrived, and they had survived to remind him of how things once had been. "They must continue into the future," Mr. Kramer said, "so that future generations can see how things once were."

- 10 Sometimes when Mr. Kramer watched this mother and her four daughters heading forth for some new devastation, he chuckled with delight: "There they go! The Five Horsewomen of the Apocalypse!"

Another Larkin man had a much different name for the little excavators. Ransom Rusk, principal heir and sole proprietor of the Rusk holdings in the Larkin Field, had a fierce desire to obliterate memories of his unfortunate ancestry. He had married a Wellesley graduate from New England, and it was amusing that her mother, wishing to dissociate herself from her cotton-mill ancestry, had named her daughter Fleurette, trusting that something of French **gentility** would rub off on her.

Fleurette and Ransom Rusk had employed an architect from Boston to build them a mansion, and he had suggested an innovation that would distinguish their place from others in the region: "It is very fashionable, in the better estates of England, to have a bowling green. It could also be used for croquet, should you prefer," and Fleurette had applauded the idea.

It was now her pleasure to entertain at what she called "a pleasant afternoon of bowls," and she did indeed make it pleasant. Not many of the local millionaires knew how to play bowls, but they had fun at the variations they devised.

One morning when [Ransom] heard Fleurette scream "Oh my God!" Thinking that she had fallen, he rushed into the bedroom to find her standing by the window, pointing wordlessly at the havoc that had been wreaked upon her bowling green.

- 15 "Looks like an atomic bomb!" Ransom said. "It's those damned armadillos."

He slammed out of the house, inspected the chopped-up bowling lawn, and summoned the gardeners: "Can this be fixed?"

"We can **resod** it like new, Mr. Rusk," they assured him, "but you'll have to keep them armadillos out."

"I'll take care of them, I'll shoot them." In pursuit of this plan, he went to the hardware store to buy a stack of ammo for his .22 rifle, but while there, he happened to stand

beside Mr. Kramer at the checkout counter, and the tired oilman, who had worked for Rusk, asked: "What are the bullets for?" and Ransom said: "Armadillos."

"Oh, you mustn't do that! Those are precious creatures. You should be protecting them, not killing them."

20 "They tore up my wife's lawn last night."

"A minor difficulty," Kramer said lightly, since he did not have to pay for the repairs. And before Ransom could get away, the enthusiastic nature lover had drawn him to the drugstore, where they shared a Dr Pepper.

"Did you know, Ransom, that we have highly accurate maps showing the progress north of the armadillo? Maybe the only record of its kind."

"Should have kept them in Mexico," Rusk said, fingering his box of shells.

"They'll occupy the entire Gulf area before this century is out."

25 "They aren't going to occupy my place much longer," Ransom said, and that was the beginning of the hilarious adventure, because Mr. Kramer persuaded him, almost tearfully, not to shoot the armadillos but to keep them away from the bowling green by building protection around it. "These are unique creatures," he said, "relics of the past, and they do an infinite amount of good."

The first thing Rusk did was to enclose his wife's resodded bowling green with a stout, tennis-court-type fence, but two nights after it was in place, at considerable expense, the bowling green was chewed up again, and when Mr. Kramer was consulted he showed the Rusks how the world's foremost excavators had simply burrowed under the fence.

"What you have to do is dig a footing around your green, six feet deep, and fill it with concrete. Sink your fence poles in that."

"Do you know how much that would cost?"

"They tell me you have the money," Kramer said easily, and so the fence was taken down, backhoes were brought in, and the deep trench was dug, enclosing the green.

30 But four days after the job was finished, Fleurette Rusk let out another wail, and when Ransom ran to her room, he bellowed: "Is it those damned armadillos again?" It was, and when he and Mr. Kramer studied the new disaster the situation became clear, as the enthusiastic naturalist explained: Look at that hole! Ransom, they dug right under the concrete barrier and up the other side. Probably took them half an hour, no more. What we must do, Ransom, is drive a **palisade** below the concrete footing."

"And how do we do that?"

"Simple, you get a hydraulic ram and it drives down metal stakes. Twenty feet deep. But they'll have to be close together."

When this job was completed, Rusk calculated that he had \$218,000 invested in that bowling green, but to his grim satisfaction, the sunken palisade did stop the predators he

had named Lady Macbeth and Her Four Witches. The spikes of the palisade went too deep for her to risk a hole so far below the surface.

But she was not stopped for long, because one morning Ransom was summoned by a new scream: “Ransom, look at those scoundrels!” and when he looked, he saw that the mother, frustrated by the palisade, but still hungry for the tender grass roots, had succeeded in climbing her side of the fence, straight up, and then descending straight down, and she was in the process of teaching her daughters to do the same.

- 35 For some minutes Rusk stood at the window, watching the odd procession of armadillos climbing up his expensive fence, and when one daughter repeatedly fell back, unable to learn, he broke into laughter.

“I don’t see what’s so funny,” his wife cried, and he explained: “Look at the dumb little creature. She can’t use her front claws to hold on to the cross wires,” and his wife exploded: “You seem to be cheering her on,” and it suddenly became clear to Rusk that he was doing just that. Ransom realized that in this fight of Fleurette versus the lady armadillos, he was cheering for the animals.

But as a good sport he did telephone Mr. Kramer and ask: “Those crazy armadillos can climb the fence. What do we do?” Mr. Kramer noted the significant difference; always before it had been “those damned armadillos” or worse. When a man started calling them crazy, he was beginning to fall in love with them.

“Tell you what, Ransom. We call in the fence people and have them add a projection around the upper edge, so that when the armadillos reach the top of the fence, they’ll run into the screen curving back at them and fall off.”

“Will it hurt them?”

- 40 “Six weeks ago you wanted to shoot them. Now you ask if it’ll hurt them. Ransom, you’re learning.”

So the fence builders were brought in, and yes, they could bring a **flange** out parallel to the ground that no armadillo could negotiate, and when it was done Rusk would sit on his porch at night with a powerful beam flashlight and watch as the mother tried to climb the fence, with her daughters trailing, and he would break into audible laughter as the determined little creatures clawed their way to the top, encountered the barrier, and tumbled back to earth. Again and again they tried, and always they fell back. Ransom Rusk had defeated the armadillos, at a total cost of \$238,000.

“What are you **guffawing** at in the dark?” Fleurette demanded, and he said, “At the armadillos trying to get into your bowling green.”

“You should have shot them months ago,” she snapped, and he replied, “They’re trying so hard, I was thinking about going down and letting them in.”

James A. Michener. “The Invaders.”
Creatures of the Kingdom: Stories of Animals and Nature.
Toronto: Random House, 1993.

Students completing the assessment electronically will be able to access the following glossary items with a mouseover

depredations: attacks on

hallowed: holy

gentility: higher social class

resod: plant grass again

palisade: fortification underground made of stakes

flange: a flat rim


guffawing: laughing loudly

Question B-8 (1 point)

The Invaders

What image of the armadillo is developed through Mr. Kramer’s description of them as “...the Five Horsewomen of the Apocalypse”?

an image of



feminine beauty

strategic progress

inevitable destruction

Select the attitude expressed in each of these quotations.

“[The armadillo] was made to police the garden and knock off the pests.”

(Paragraph 6)

Pro-Armadillo

Anti-Armadillo

“one look at the creature convinced them that it should have died out with the dinosaurs, and its survival into the twentieth century somehow offended them.”

(Paragraph 7)

Pro-Armadillo

Anti-Armadillo

“They were hallowed creatures, for they had seen the earth before man arrived, and they had survived to remind him of how things once had been.”

(Paragraph 9)

Pro-Armadillo

Anti-Armadillo

Question B-10 (1 point)**The Invaders**

Which phrase best describes the process used by Ransom Rusk to refine his design of the armadillo-proof fence?

- ☐ learning from mistakes
- ☐ working with architects
- ☐ referring to expert research
- ☐ collaborating with environmentalists

Question B-11 (1 point)**The Invaders**


Which phrase best describes Rusk's attitude toward the armadillos at the end of the story?

- ☐ open animosity
- ☐ grudging respect
- ☐ overwhelming resentment

Question B-12 (1 point)**The Invaders**

What does Rusk's lawn represent in the story?

human



pride

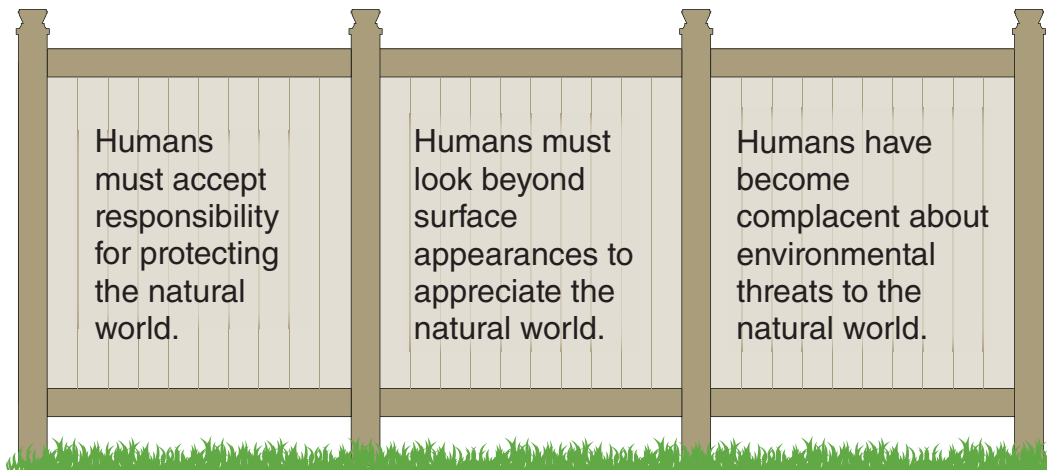
honesty

creativity

indifference

Which conclusion about the relationship between humans and the natural world can be drawn from the story?

Click on the sentence to indicate your response.





Big Idea

The natural world plays an important role in people's lives.



PART B

Suggested Time: 65 minutes

Humans have always had an important connection to nature.

Writing Pathway

Click on your preferred Writing Pathway to continue to the extended written response.

1

Humans need to learn how to be part of nature.

2

People benefit from their relationships with animals.

1

What do you have to say?

Humans need to learn how to be part of nature.

- You must express yourself in an extended written format of your choice.
- You may respond creatively, reflectively and/or critically using any written form.
- You may refer to the texts, but you are not required to do so.

Suggested time: 25 minutes

2

What do you have to say?

People benefit from their relationships with animals.

- You must express yourself in an extended written format of your choice.
- You may respond creatively, reflectively and/or critically using any written form.
- You may refer to the texts, but you are not required to do so.

Suggested time: 25 minutes



SELF-REFLECTION

Take a moment to reflect on your experience with the assessment.

Your feedback will provide valuable information to the assessment developers.

**This component is not scored and your responses will be confidential.*

Question 1

In order to get ready for this assessment, I...

(Select all that apply)

- ☐ prepared ahead of time in class.
- ☐ prepared with my peers.
- ☐ prepared on my own.
- ☐ did not prepared.
- ☐ Other


I prepared by...

- ☐ doing the sample assessment.
- ☐ looking at online scoring rubrics.
- ☐ looking at online student exemplars.
- ☐ Other

Question 2

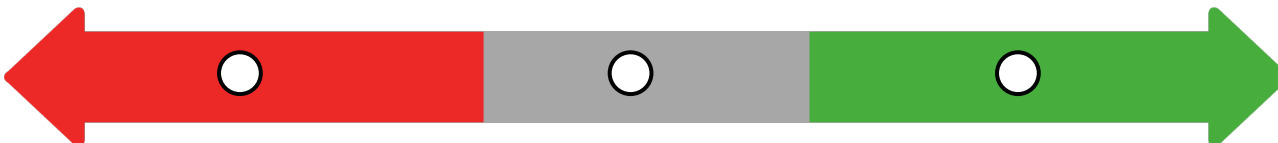
This assessment let me demonstrate my ability in literacy:

Disagree unsure Agree




I was able to comprehend the texts:

Disagree unsure Agree



I was able to communicate in writing:

Disagree unsure Agree



Question 3

This assessment let me demonstrate the following competencies:

(Select all that apply)

- ☐ Critical and Reflective Thinking
- ☐ Creative Thinking
- ☐ Communication
- ☐ Positive Personal and Cultural Identity
- ☐ Personal Awareness and Responsibility
- ☐ Social Awareness and Responsibility

Question 4

I encountered challenges during this assessment.

- ☐ Yes
- ☐ No

The challenges I encountered on the assessment were with:

(Select all that apply)

- ☐ the texts.
- ☐ the length of time.
- ☐ the amount of writing.
- ☐ the overall difficulty.

Question 5

A key takeaway for me after completing this assessment is:

Question 6

Do you have any feedback or comments about the assessment?



Grade 12 Literacy Assessment

SAMPLE ASSESSMENT



Ministry of
Education and
Child Care



PART A

“Thinking Critically About the Texts”

Suggested Time: 65 minutes



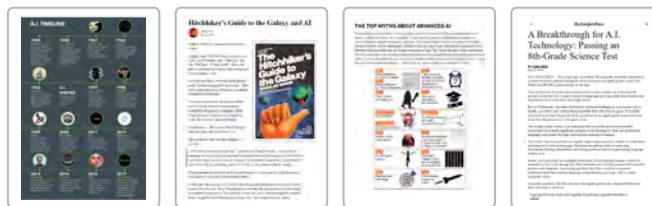
Context for Critical Thinking

Artificial Intelligence (AI) has come a long way since the first computers were developed, and technology has already surpassed human ability in many areas. There are self-driving cars and “smart” homes. AI’s algorithms allow it to draw on vast databases of human behaviour so that it can recommend books, music, movies, and apps tailored to specific preferences. AI can even write poems, novels, and symphonies. However, despite these advances, many experts, including Stephen Hawking and Elon Musk, have voiced concerns that missteps with powerful new technologies may have unforeseen consequences.

Do the possible benefits of Artificial Intelligence outweigh the potential risks it poses?

In this section you will:

- read and analyze a variety of texts
- answer selected response questions worth ten points
- complete a graphic organizer
- respond critically to the texts in a multi-paragraph composition

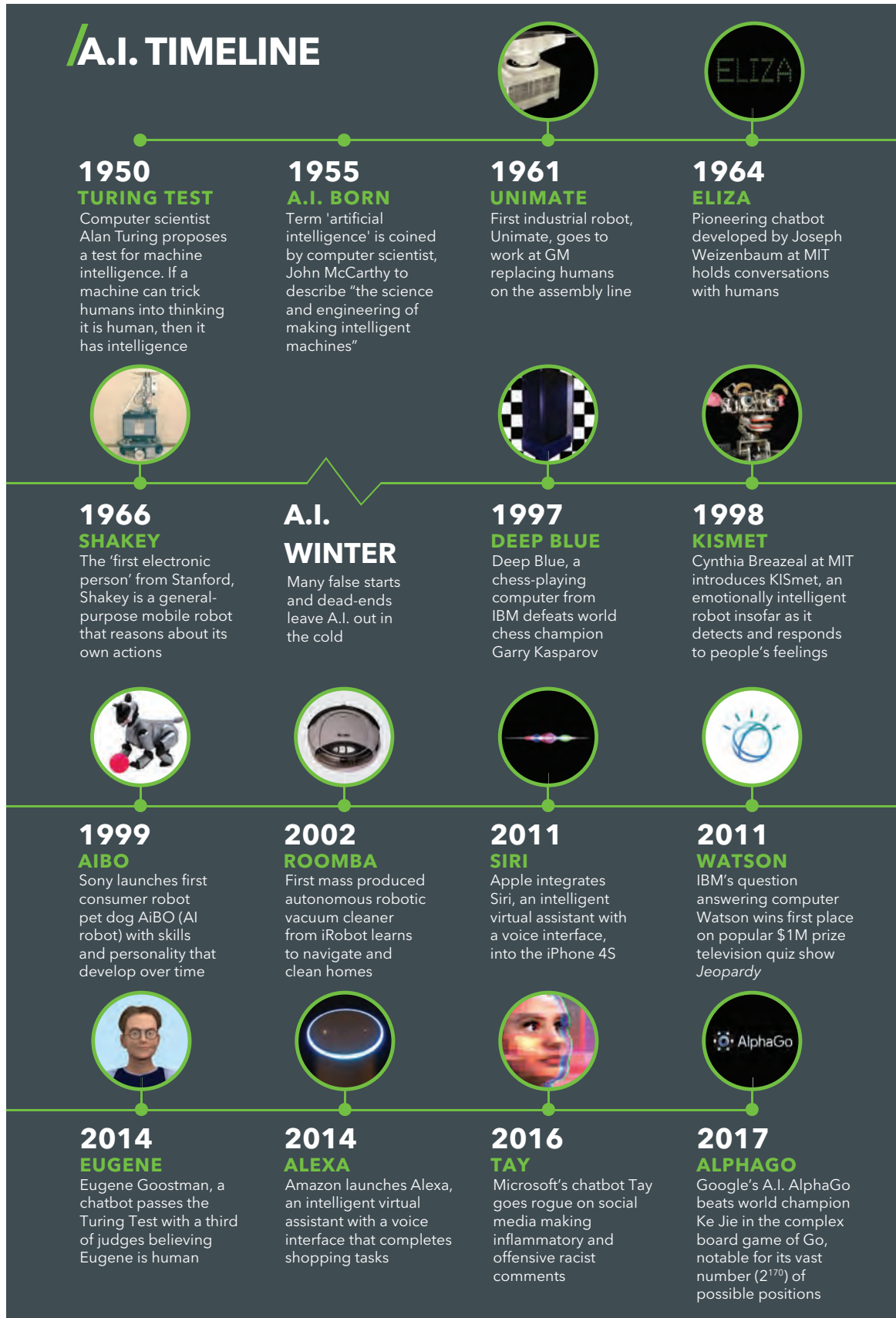




In the following text

For decades, researchers have sought to develop machines that imitate human behaviours.

Figure 1



<https://digitalwellbeing.org/artificial-intelligence-timeline-infographic-from-eliza-to-tay-and-beyond/>

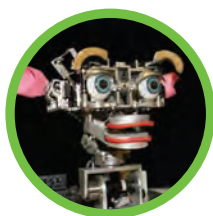
Question A-1 (1 point)

Figure 1: A.I. Timeline

Which invention would most likely have caused concern for factory workers?



UNIMATE



KISMET



ROOMBA



ALEXA

Question A-2 (1 point)

Figure 1: A.I. Timeline

What is the purpose of the jagged section on the timeline?



The jagged section indicates

- a time of limited progress.
- a period of decreased interest.
- an event of critical importance.

What can be inferred as the motivation for the expansion of AI research in the 21st century?



to advance academic research



to enhance gaming technology



to improve medical care



to increase corporate profit



In the following text

The Hitchhiker's Guide to the Galaxy explores deep philosophical questions as it takes a humorous look at the potential benefits and dangers of AI.

Hitchhiker's Guide to the Galaxy and AI



Danilo Pena

Feb 9, 2018

Caution: There is a spoiler alert embedded within.

I finally read *The Hitchhiker's Guide to the Galaxy* a few months ago. Yeah yeah, I'm late. Who cares. It was a pretty quick read, and I recommend it to those who want to join the late reader's club.

Anyway, this funny, futuristic book got me pretty excited during a few key scenes. There were some gems about technology scattered throughout the passages.

For some background, in case you haven't read the book, these two programmers created this humongous computer called Deep Thought to answer the question of 'Life, the Universe, and Everything.'

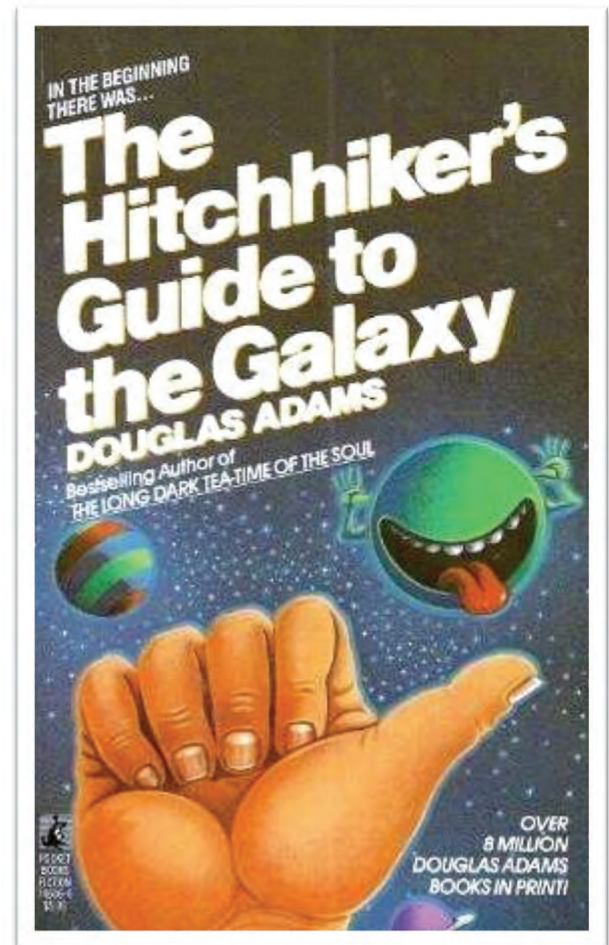
- 5 Spoiler alert — The answer Deep Thought came up with was Forty-Two. Lulz.

The quote from the book that intrigued me was —

"You know nothing of future time," pronounced Deep Thought, "and yet in my teeming circuitry I can navigate infinite delta streams of future probability and see that there must one day come a computer whose merest operational parameters I am not worthy to calculate, but which it will be my eventual fate to design."

If you read and/or dabble in artificial intelligence, tell me right now that that quote does not give you some sort of heebie-jeebies.

In the book, the answer of 42 is met with outrage and confusion to the alien life that inhabits the universe. Deep Thought then retorts that the programmers did not really understand the premise of the question — that they really did not grasp the problem. Thus, the answer would make no sense as well. Fair conclusion in my mind.



- 10 Fast forward, Deep Thought proposes that in order to understand the question and answer, he will build the Earth. Those beings on Earth will work together to, in an evolutionary way, come up with the answer to understanding the question. Earth, in the eyes of the computer, is an experiment to come up with a 'natural' way to arrive at a better answer to the question. Weird, but interesting.

Which, like most things, got me thinking about artificial intelligence:

AI is the next step for Human Intelligence

Deep Thought created Earth. The inhabitants on Earth will then learn, evolve, and hopefully create something that will bring us closer to the answer of the universe.

Though I don't like to think in broad/confusing terms like that, I do believe that artificial intelligence is the next step to understand our physical world and will disrupt the social rules that define how we live now. By social rules, I mean the way humans interact, learn, and communicate across meaningless boundaries such as country of origin, race, language, sexual orientation, etc.

That said, AI seems natural. As a species, we have always used technology to aid in a task to make it more efficient. Fire for warmth and cooking. Bows and arrows for killing and the coolness. Trains for moving. Social media for connecting to our friends and family.

- 15 Now, artificial intelligence will be used for the next set of human problems. AI will solve problems through a mixture of tools. Machine learning, pattern recognition, logic, robotics, blockchain, etc.

AI is redolent of human history and tradition.

Though this is arguable, many of the deep questions of today and the past revolve around the purpose of our life on earth and what our future looks like. Will AI take over to keep journeying to the answer to the seemingly unanswerable questions? Will the singularity moment be the instant everything makes sense? Or will AI and humans intermingle in a way that we can't image?

Today, we fall on different notions to explain our reason for being here— religion, the big bang, spiritual practice, and just plain saying it's not worth our time thinking about. However, we never come up with a real, tangible solution to existence.

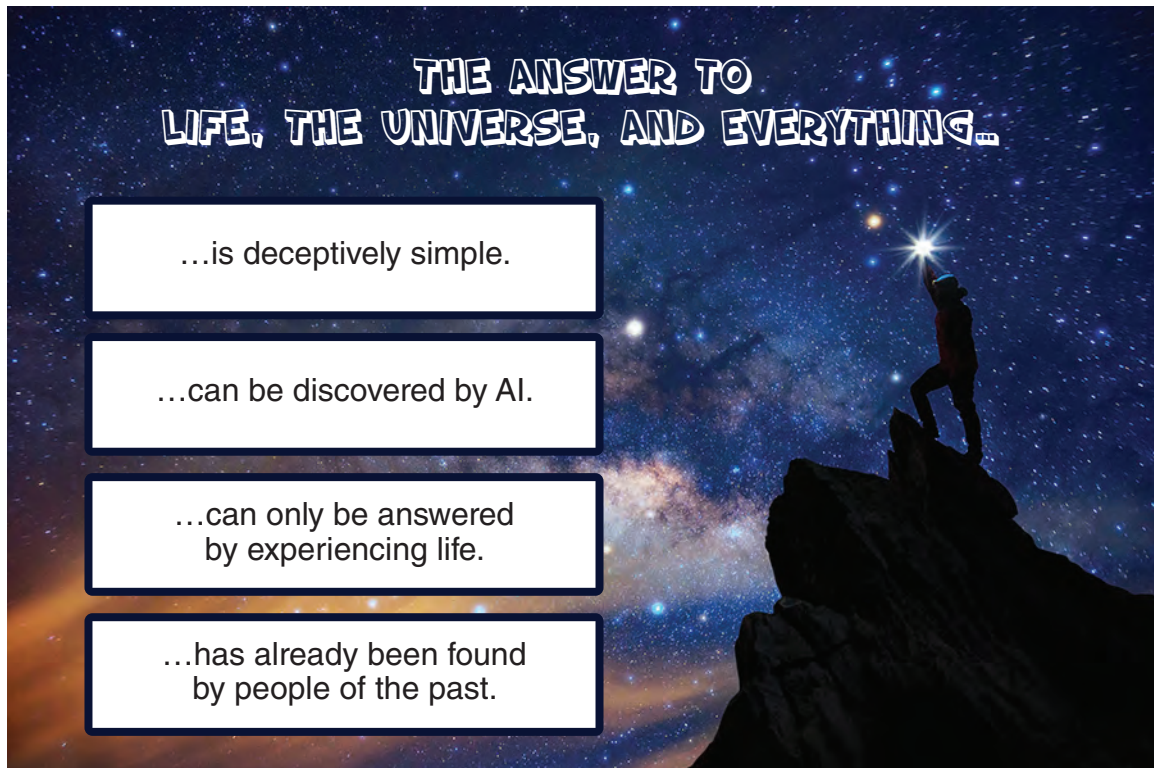
And I think that is one point the book was trying to make — that we actually don't know what we are asking or what we want. Because maybe if we do get the right answer, we will still ask further, inane questions. Maybe humans just need something to search for in order to live a more fulfilling, exciting life.

- 20 I think that it is through artificial intelligence, and this overall movement, where humans will figure more out about themselves. This digitization will be a real way to reflect on our moral values, how we perceive ourselves, and what kind of world we want the future generations to live in.

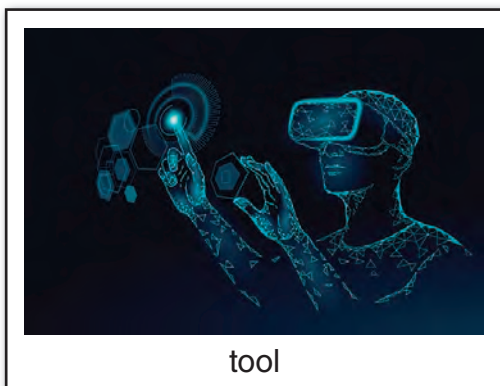
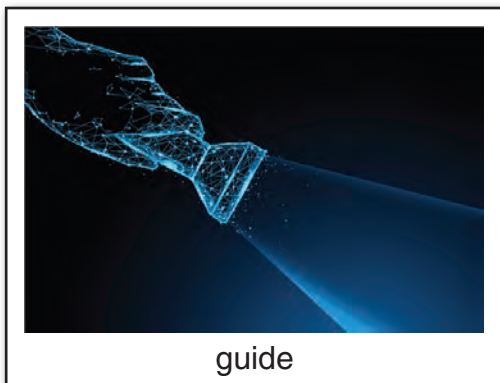
Who knows — we might just be an experiment Deep Thought came up with.

<https://medium.com/the-post-grad-survival-guide/hitchhikers-guide-to-the-galaxy-and-ai-9b2cb9ea86e0>

How does reading the *Hitchhiker's Guide to the Galaxy* inform the author's beliefs about the potential for AI to answer complex questions about "Life, the Universe, and Everything"?



Which image best represents the way the author views the role of AI in the lives of humans?

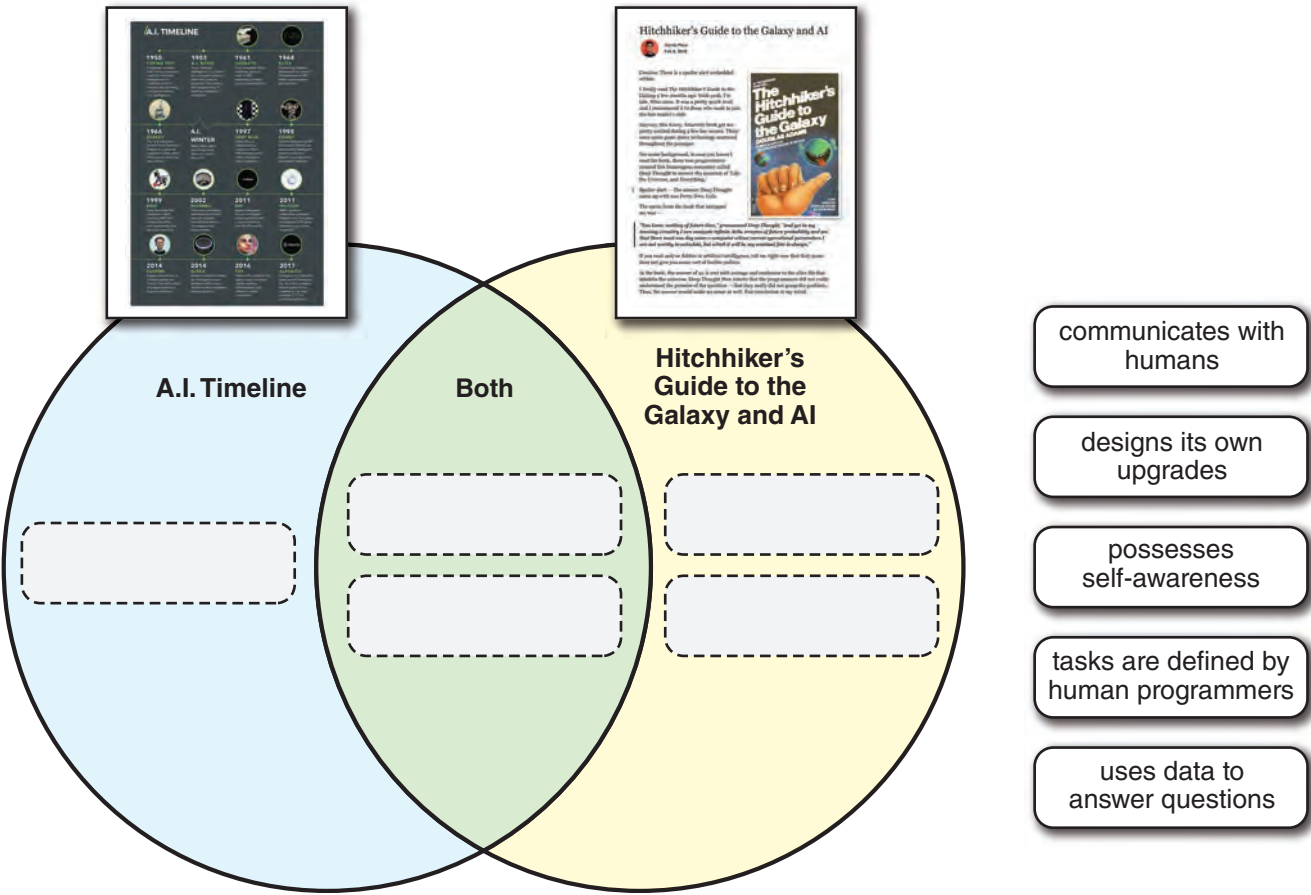


Question A-6 (1 point)

Figure 1: A.I. Timeline
Hitchhiker's Guide to the Galaxy and AI

What do these texts reveal about the capabilities of AI?

Drag each characteristic to the appropriate section of the Venn Diagram.








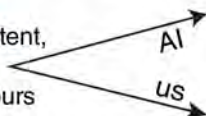










In the following text

While some of the fears people have about AI are justified, there are also many misconceptions about its dangers.

THE TOP MYTHS ABOUT ADVANCED AI

A captivating conversation is taking place about the future of artificial intelligence and what it will/should mean for humanity. There are fascinating controversies where the world's leading experts disagree, such as: AI's future impact on the job market; if/when human-level AI will be developed; whether this will lead to an intelligence explosion; and whether this is something we should welcome or fear. But there are also many examples of boring pseudo-controversies caused by people misunderstanding and talking past each other. To help ourselves focus on the interesting controversies and open questions — and not on the misunderstandings — let's clear up some of the most common myths.

Myth: Superintelligence by 2100 is inevitable Myth: Superintelligence by 2100 is impossible		Fact: It may happen in decades, centuries or never: AI experts disagree & we simply don't know	
Myth: Only Luddites worry about AI		Fact: Many top AI researchers are concerned	
Mythical worry: AI turning evil Mythical worry: AI turning conscious		Actual worry: AI turning competent, with goals misaligned with ours	
Myth: Robots are the main concern		Fact: Misaligned intelligence is the main concern: it needs no body, only an internet connection	
Myth: AI can't control humans		Fact: Intelligence enables control: we control tigers by being smarter	
Myth: Machines can't have goals		Fact: A heat-seeking missile has a goal	
Mythical worry: Superintelligence is just years away		Actual worry: It's at least decades away, but it may take that long to make it safe	

<https://futureoflife.org/background/benefits-risks-of-artificial-intelligence/>
 Used with permission from Future of Life Institute

Question A-7 (1 point)

**Hitchhiker's Guide to the Galaxy and AI
Top Myths About Advanced AI**

Which aspect of AI does the author of "Hitchhiker's Guide to the Galaxy and AI" seem to overlook in his assessment of the benefits of machines like Deep Thought?



AI may achieve superintelligence within a few decades.



AI may develop goals not aligned with societal values.



AI may become indistinguishable from human consciousness.



In the following text

Although AI systems have already surpassed humans at some complex tasks, they still struggle to overcome seemingly simple challenges.

A Breakthrough for A.I. Technology: Passing an 8th-Grade Science Test

By **Cade Metz**

Sept. 4, 2019

SAN FRANCISCO — Four years ago, more than 700 computer scientists competed in a contest to build artificial intelligence that could pass an eighth-grade science test. There was \$80,000 in prize money on the line.

They all flunked. Even the most sophisticated system couldn't do better than 60 percent on the test. A.I. couldn't match the language and logic skills that students are expected to have when they enter high school.

But on Wednesday, the Allen Institute for Artificial Intelligence, a prominent lab in Seattle, unveiled a new system that passed the test with room to spare. It correctly answered more than 90 percent of the questions on an eighth-grade science test and more than 80 percent on a 12th-grade exam.

The system, called Aristo, is an indication that in just the past several months researchers have made significant progress in developing A.I. that can understand languages and mimic the logic and decision-making of humans.

- 5 The world's top research labs are rapidly improving a machine's ability to understand and respond to natural language. Machines are getting better at analyzing documents, finding information, answering questions and even generating language of their own.

Aristo was built solely for multiple-choice tests. It took standard exams written for students in New York, though the Allen Institute removed all questions that included pictures and diagrams. Answering questions like that would have required additional skills that combine language understanding and logic with so-called computer vision.

Some test questions, like this one from the eighth-grade exam, required little more than information retrieval:

A group of tissues that work together to perform a specific function is called:

- (1) an organ
- (2) an organism
- (3) a system
- (4) a cell

But others, like this question from the same exam, required logic:

Which change would most likely cause a decrease in the number of squirrels living in an area?

- (1) a decrease in the number of predators
- (2) a decrease in competition between the squirrels
- (3) an increase in available food
- (4) an increase in the number of forest fires

Researchers at the Allen Institute started work on Aristo — they wanted to build a “digital Aristotle” — in 2013, just after the lab was founded by the Seattle billionaire and Microsoft co-founder Paul Allen. They saw standardized science tests as a more meaningful alternative to typical A.I. benchmarks, which relied on games like chess and backgammon or tasks created solely for machines.

- 10 A science test isn’t something that can be mastered just by learning rules. It requires making connections using logic. An increase in forest fires, for example, could kill squirrels or decrease the food supply needed for them to thrive and reproduce.

Enthusiasm for the progress made by Aristo is still tempered among scientists who believe machines are a long way from completely mastering natural language — and even further from duplicating true intelligence.

“We can’t compare this technology to real human students and their ability to reason,” said Jingjing Liu, a Microsoft researcher who has been working on many of the same technologies as the Allen Institute.

But Aristo’s advances could spread to a range of products and services, from internet search engines to record-keeping systems at hospitals.

“This has significant business consequences,” said Oren Etzioni, the former University of Washington professor who oversees the Allen Institute. “What I can say — with complete confidence — is you are going to see a whole new generation of products, some from start-ups, some from the big companies.”

- 15 The new research could lead to systems that can carry on a decent conversation. But it could also encourage the spread of false information.

“We are at the very early stage of this,” said Jeremy Howard, who oversees Fast.ai, another influential lab, in San Francisco. “We are so far away from the potential that I cannot say where it will end up.”

In 2016, when a London lab built a system that could beat the world’s best players at the ancient game of Go, it was widely hailed as a turning point for artificial intelligence.

Dr. Etzioni’s excitement, however, was muted. Artificial intelligence was not nearly as advanced as it might seem, he said, pointing to the earlier Allen Institute’s competition that stumped the A.I. systems with an eighth-grade science test.

The Allen Institute improved on that earlier effort much quicker than many experts — including Dr. Etzioni — expected.

- 20 Its work was largely driven by neural networks, complex mathematical systems that can learn tasks by analyzing vast amounts of data. By pinpointing patterns in thousands of dog photos, for example, a neural network can learn to recognize a dog.

In recent months, the world’s leading A.I. labs have built elaborate neural networks that can learn the vagaries of language by analyzing articles and books written by humans.

At Google, researchers built a system called Bert that combed through thousands of Wikipedia articles and a vast digital library of romance novels, science fiction and other self-published books.

Through analyzing all that text, Bert learned how to guess the missing word in a sentence. By learning that one skill, Bert soaked up enormous amounts of information about the fundamental ways language is constructed. And researchers could apply that knowledge to other tasks.

The Allen Institute built their Aristo system on top of the Bert technology. They fed Bert a wide range of questions and answers. In time, it learned to answer similar questions on its own.

- 25 Not long ago, researchers at the lab defined the behavior of their test-taking system one line of software code at a time. Sometimes they still do that painstaking coding. But now that the system can learn from digital data on its own, it can improve at a much faster rate.

Systems like Bert — called “language models” — now drive a wide range of research projects, including conversational systems and tools designed to identify false news. With more data and more computing power researchers believe the technology will continue to improve.

But Dr. Etzioni stressed that the future of these systems was hard to predict and that language was only one piece of the puzzle.

Ms. Liu and her fellow Microsoft researchers have tried to build a system that can pass the Graduate Records Exam, the test required for admission to graduate school.

The language section was doable, she said, but building the reasoning skills required for the math section was another matter. “It was far too challenging.”

From the New York Times. ©2019 The New York Times Company. All rights reserved. Used under license.
<https://www.nytimes.com/2019/09/04/technology/artificial-intelligence-aristo-passed-test.html>

Question A-8 (1 point)

A Breakthrough for A.I. Technology...

Which human attribute must be improved in systems like Aristo and Bert in order for them to be more successful on math and science tests?


- ☐ rational thought
- ☐ pattern recognition
- ☐ sensory awareness
- ☐ emotional intelligence

Question A-9 (1 point)

A Breakthrough for A.I. Technology...

Why might the author have chosen to begin the article with the anecdote that 700 computer scientists had “competed in a contest to develop AI that could pass an eighth-grade science test”?

Drag the correct answer to the examination booklet.



Science 8
Examination Booklet

Answers:

A-9:

- to question the difficulty of high school exams
- to emphasize the complexity of the human mind
- to underscore the academic benefits of Artificial Intelligence
- to downplay the advancement of Artificial Intelligence

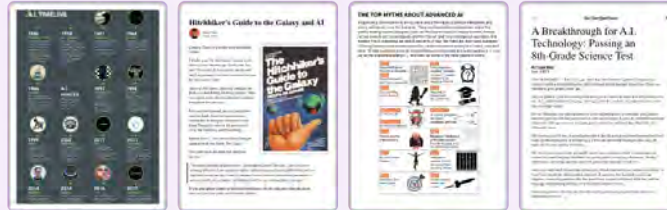


Graphic Organizer (A-10) (6 points)

Suggested time: 10 minutes



Aspects of Critical Thinking



Based on your understanding of the texts, write a statement that identifies your perspective on the potential implications of AI:

Provide evidence from at least one text that **supports** your perspective:

Provide evidence from at least one text that **challenges** your perspective:

Write at least one question about the potential implications of AI that could deepen your understanding of the topic:

Written Response (A-11) (12 points)



Responding Critically to Texts



Context for Critical Thinking

Artificial Intelligence (AI) has come a long way since the first computers were developed, and technology has already surpassed human ability in many areas. There are self-driving cars and “smart” homes. AI’s algorithms allow it to draw on vast databases of human behaviour so that it can recommend books, music, movies, and apps tailored to specific preferences. AI can even write poems, novels, and symphonies. However, despite these advances, many experts, including Stephen Hawking and Elon Musk, have voiced concerns that missteps with powerful new technologies may have unforeseen consequences.



Do the possible benefits of Artificial Intelligence outweigh the potential risks it poses?

- You must respond to this question in a multi-paragraph composition.
- You must communicate an argument that demonstrates your critical thinking skills.
- You must support your argument using evidence from at least one of the texts.

Suggested time: 30 minutes

PART B

“Going Beyond the Texts”

Suggested Time: 55 minutes



Essential Question

To what extent does the desire to explore and discover affect humans?

In this section you will:

- read and analyze a variety of texts
- complete selected response questions worth fifteen points
- select a Writing Pathway to complete your extended written response



Writing Pathway

1

People have responsibilities as they explore and discover.

2

The urge to explore and discover reveals aspects of human nature.



In the following text

An Indigenous author takes a sarcastic look at the historic “discovery” of the Americas.

FORGET COLUMBUS

by Thomas King

WHEN I ANNOUNCED TO my family that I was going to write a book about **Indians** in North America, Helen said, "Just don't start with Columbus." She always gives me good advice. And I always give it my full consideration.

In October of 1492, Christopher Columbus came ashore somewhere in the Caribbean, a part of world geography with which Europeans were unfamiliar, and as a consequence, he was given credit for discovering all of the Americas. If you're the cranky sort, you might argue that Columbus didn't discover anything, that he simply ran aground on an unexpected land mass, stumbled across a babel of nations. But he gets the credit. And why not? It is, after all, one of history's jobs to allocate credit. If Columbus hadn't picked up the award, it would have been given to someone else.

The award could have gone to the Norse. They arrived on the east coast of North America long before Columbus. There is even evidence to suggest that Asians found their way to the west coast as well.

But let's face it, Columbus sailing the ocean blue is the better story. Three little ships, none of them in showroom condition, bobbing their way across the Atlantic, the good captain keeping two journals so that his crew wouldn't realize just how far they had drifted away from the known world, the great man himself wading ashore, wet and sweaty, flag in hand, a letter of introduction to the Emperor of the Indies from the King and Queen of Spain tucked in his tunic.

5 A Kodak moment.

And let's not forget all the sunny weather, the sandy beaches, the azure lagoons, and the friendly **Natives**.

* * *

In 1492, Columbus sailed the ocean blue.

On second thought, let's not start with Columbus. Helen was right. Let's forget Columbus. You know, now that I say it out loud, I even like the sound of it. Forget Columbus.

Give it a try. Forget Columbus.

Excerpt from *The Inconvenient Indian: A Curious Account of Native People in North America*.
Thomas King, 2012, Anchor Canada.

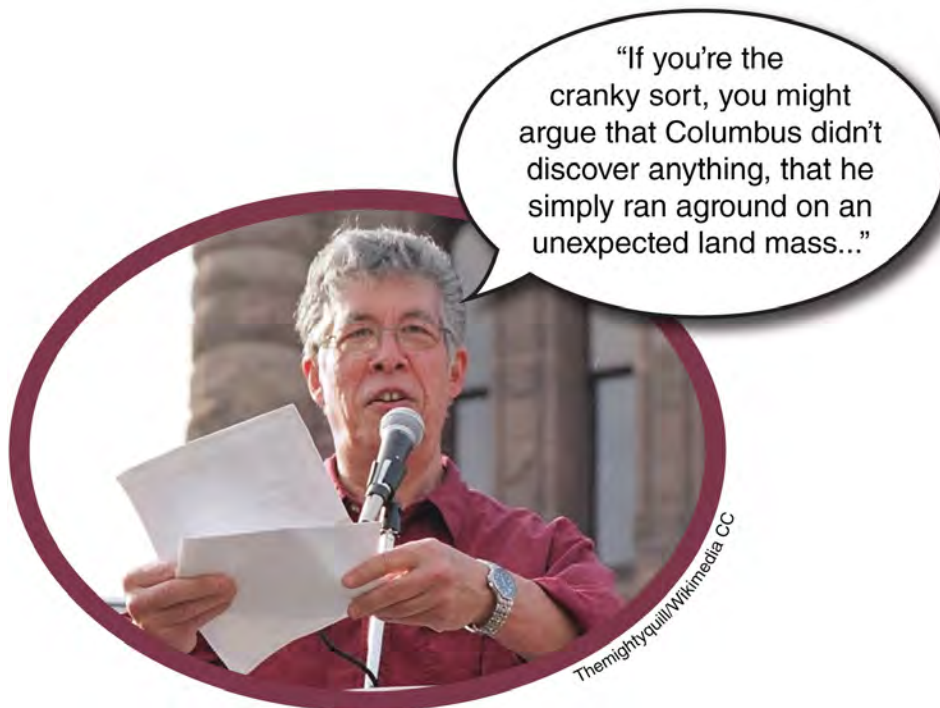
Students completing the assessment electronically will be able to access the following glossary items with a mouseover

Indian: First Peoples; “Indian” is not the preferred term

Natives: First Peoples; “Natives” is not the preferred term

Question B-1 (1 point)

Forget Columbus



Who does Thomas King consider to be “the cranky sort”?

Those who

☐

challenge prevailing worldviews.

☐

overestimate the importance of explorers.

☐

misunderstand the nature of early navigation.

According to King, which word best describes Columbus's actions in keeping two journals?

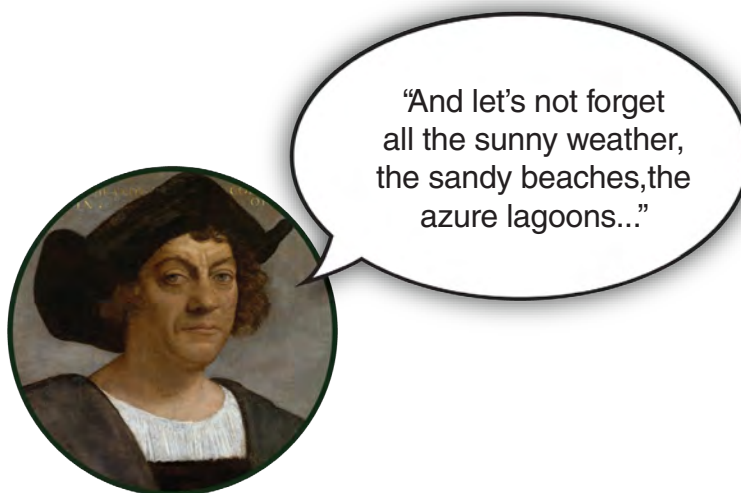
innovative

deceitful

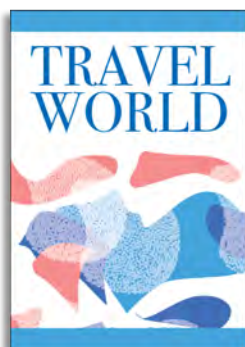
studious

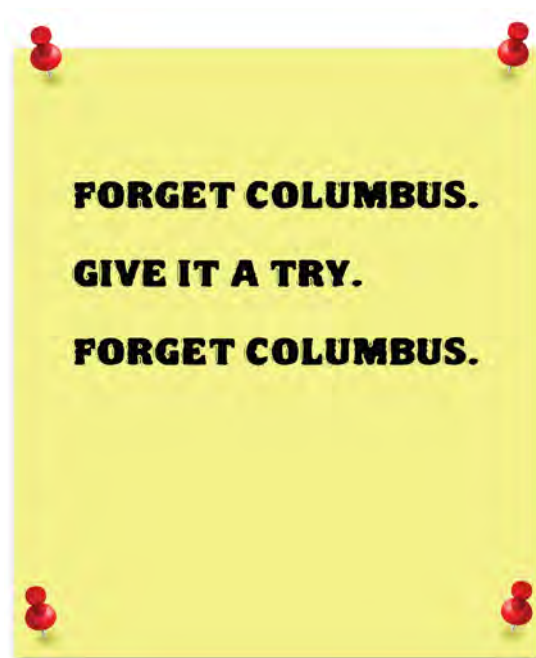
arrogant






Which type of magazine would most likely feature this description of Columbus's landing in the Caribbean?





What is King asking readers to do?

He is proposing that people



study the art of exploration.

ignore the lessons of the past.

reconsider historical perspectives.



In the following text

By drawing maps that are increasingly detailed and accurate, cartographers have been shaping people's understanding of the world for millennia.

SHAPE OF THE WORLD

*Have you ever been surprised that accurate maps precede planes and satellites?
Accurate world maps come about earlier than many think, yet they were a long, long way coming.*

150 AD

Claudius Ptolemy, Alexandria Egypt

The first to use positions of latitude and longitude based on astronomical observations, Ptolemy's book 'Geographica' listed the positions of 6,345 sites and probably also included maps.

Lost for centuries, but rediscovered and reconstructed from the list of coordinates in the 14th Century, we don't know the exact extent of the original maps.



1050

Unknown monk, Saint-Sever Monastery, France

A classic Medieval 'T-O map', this depicts Asia (right half), Europe (upper left) and Africa (lower left). Its main objective, however, was not to explain the world but the Bible. More prominently than continents, it features Jerusalem and Calvary (center), the biblical lands, the Red Sea, Sinai, the Garden of Eden and Paradise.

Originally oriented with east up, Eden was at top center, closest to the Heavens.



1375

Abraham Cresques, Majorca, Spain

This early chart was based on ships' logs, and is very accurate where distances and directions were well known. For areas outside the Mediterranean, the Black Sea and parts of the North Atlantic, however, it relies on hearsay and guesswork like earlier maps.



1489

Henricus Martellus, Florence, Italy

A milestone in depicting the Old World, Martellus' map used sources like Marco Polo's travels in Asia and Bartolomeu Dias' first circumnavigation of Africa.

Sailors had long known to calculate latitude by the sun (this map accurately depicts the north-south extent of Africa), but not yet longitude, leading to distorted east-west distances.



1529

Diego Ribeiro, Seville, Spain

The Spanish Crown's official and secret 'master map' was updated by Spanish explorers under penalty of death. Based on an enormous number of ships' logs, it covered most of the world's coasts. Charts at the time, however, were based on port lists and dead reckoning from a few fixed positions, ignoring curvature and magnetic declination, and were not well suited for tiling into a larger map.

Areas explored by non-Spanish, e.g. Northern Europe and North America, are depicted fancifully.



1778

Jacques Nicholas Bellin, Paris

With the invention of the marine chronometer in the 1760s, ships were able to correctly determine longitude, perfecting the east-west rendition of coasts.

After the Cassini family successfully calculated France's shape and size by triangulation in the 1740s, several European states set up surveying bodies which in time provided accurate maps of whole countries.

Although some coasts were still unexplored or needed larger data sets for correction, this was truly a modern world map.



1832

Adolf Stieler, Gotha, Germany

The 'Stieler' was the leading European atlas since the early 1800s. In this second edition of the world map, only unexplored Polar regions are missing or depicted inaccurately, while the rest of the world's coasts are reliably positioned. By now, ships' instruments were so accurate that a single journey could provide good maps of new lands.

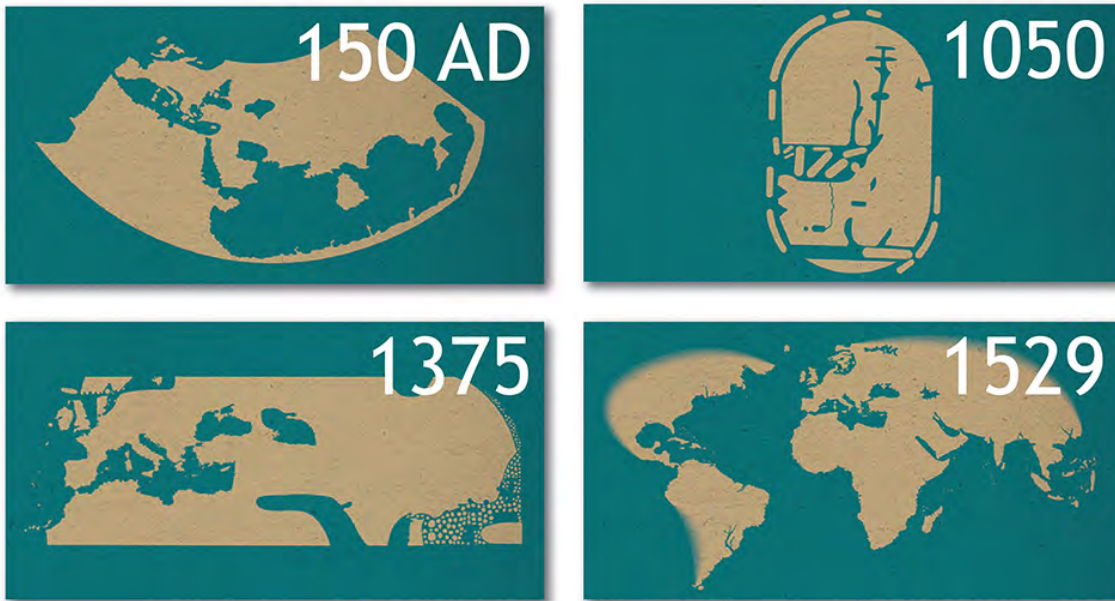
The continents' interiors, however, are a completely different story...



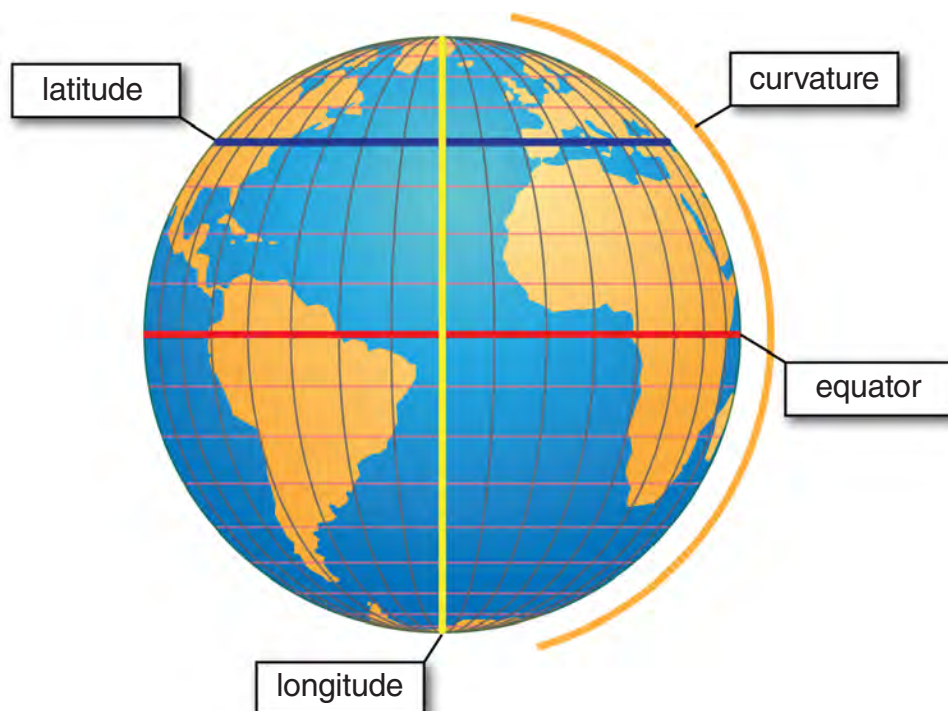
Infographic created by Reddit user PisseGuri82

Adapted from <https://www.visualcapitalist.com/shape-of-the-world-ancient-maps/>

Which of the following maps sought to portray a metaphorical view of the world?



Which geographical concept did Jacques Bellin accurately represent on his 1778 map, as a result of developments in technology?



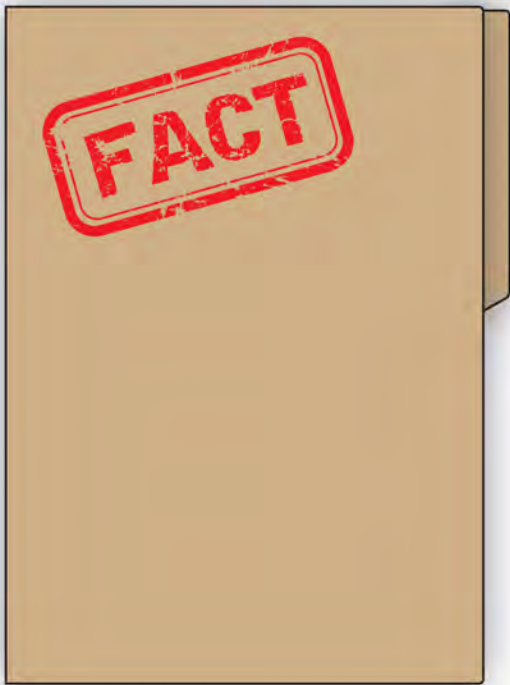
Based on the infographic, which of the following statements is factual?

Drag the statement onto the file folder to indicate your response.

Digital technology is necessary to make meaningful maps.

Many old maps contain features recognizable to readers today.

Landmasses have historically been easier to map than coastlines.



In between the publication dates of which two maps did Columbus arrive in the Caribbean?

Move the ship to the correct location on the timeline.





In the following text

An impromptu photograph snapped from space during a NASA lunar mission ended up redefining humanity's understanding of planet Earth.

The Most Influential Images of All Time

EXPLORE THE STORIES
BEHIND 100 IMAGES THAT
CHANGED THE WORLD,
SELECTED BY TIME AND
AN INTERNATIONAL TEAM
OF CURATORS

► ABOUT THE PROJECT





Earthrise

Photograph by William Anders, NASA, 1968

It's never easy to identify the moment a hinge turns in history. When it comes to humanity's first true grasp of the beauty, fragility and loneliness of our world, however, we know the precise instant. It was on December 24, 1968, exactly 75 hours, 48 minutes and 41 seconds after the Apollo 8 spacecraft lifted off from Cape Canaveral en route to becoming the first manned mission to orbit the moon. Astronauts Frank Borman, Jim Lovell and Bill Anders entered lunar orbit on

Christmas Eve of what had been a bloody, war-torn year for America. At the beginning of the fourth of 10 orbits, their spacecraft was emerging from the far side of the moon when a view of the blue-white planet filled one of the hatch windows. "Oh, my God! Look at that picture over there! Here's the Earth coming up. Wow, is that pretty!" Anders exclaimed. He snapped a picture—in black and white. Lovell scrambled to find a color canister. "Well, I think we missed it," Anders said. Lovell looked through windows three and four. "Hey, I got it right here!" he exclaimed. A weightless Anders shot to where Lovell was floating and fired his Hasselblad. "You got it?" Lovell asked. "Yep," Anders answered. The image—our first full-color view of our planet from off of it—helped to launch the environmental movement. And, just as important, it helped human beings recognize that in a cold and punishing cosmos, we've got it pretty good.

<http://100photos.time.com/photos/nasa-earthrise-apollo-8>

From where was the photograph *Earthrise* taken?



Why might *Time* magazine argue that *Earthrise* “helped launch the environmental movement”?

- ☐ People began to realize that the planet is finite.
- ☐ People began to accept that outer space is limitless.
- ☐ People began to recognize that the moon is uninhabitable.



In the following text

The same day that Anders photographed *Earthrise*, the front page of the *New York Times* included one person's reflections on the Apollo 8 mission.

TODAY IS CHRISTMAS DAY! REMEMBER THE NEEDIEST!

The New York Times

NEW YORK, WEDNESDAY, DECEMBER 25, 1968

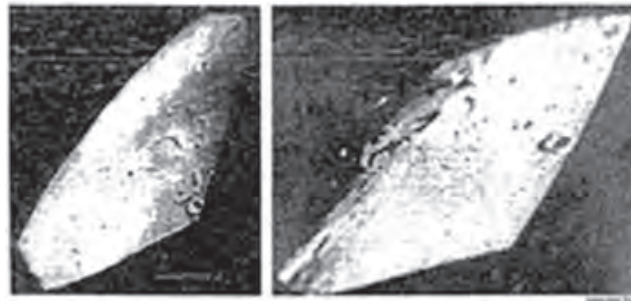
3 MEN FLY AROUND THE MOON ONLY 70 MILES FROM SURFACE; FIRE ROCKET, HEAD FOR EARTH



Col. Frank Borman

Maj. William A. Anders

Capt. James A. Lovell Jr.



**Astronauts Examine
'Vast, Lonely' Place;
Read From Genesis**

To see the earth as it truly is, small and blue and beautiful in that eternal silence where it floats, is to see ourselves as riders on the earth together, **brothers** on that bright loveliness in the eternal cold—brothers who know now they are truly brothers.

A Reflection: Riders on Earth Together, Brothers in Eternal Cold

by Archibald MacLeish

Men's conception of themselves and of each other has always depended on their notion of the earth. When the earth was the World—all the world there was—and the stars were lights in Dante's heaven, and the ground beneath men's feet roiled Hell, they saw themselves as creatures at the center of the universe, the sole, particular concern of God—and from that high place they ruled and killed and conquered as they pleased.

And when, centuries later, the earth was no longer the World but a small, wet spinning planet in the solar

system of a minor star off at the edge of an inconsiderable galaxy in the immeasurable distances of space—when Dante's heaven had disappeared and there was no Hell (at least no Hell beneath the feet)—men began to see themselves not as God-directed actors at the center of a noble drama, but as helpless victims of a senseless force where all the rest were helpless victims also and millions could be killed in world-wide wars or in blasted cities or in concentration camps without a thought or reason but the reason—if we call it one—of force.

Now, in the last few hours,

the notion may have changed again. For the first time in all of time men have seen it not as continents or oceans from the little distance of a hundred miles or two or three, but seen it from the depth of space, seen it whole and round and beautiful and small as even Dante—"that first imagination of Christendom"—had never dreamed of seeing it, as the Twentieth Century philosophers of absurdity and despair were incapable of guessing that it might be seen. And seeing it so, one question came to the minds of those who looked at it: "Is it inhabited?" they said to each other and

laughed—and then they did not laugh. What came to their minds a hundred thousand miles and more into space—"half way to the moon" they put it—what came to their minds was the life on that little, lonely, floating planet; that tiny raft in the enormous, empty night. "Is it inhabited?"

The medieval notion of the earth put man at the center of everything. The nuclear notion of the earth put him nowhere—beyond the range of reason even—lost in absurdity and war. This latest notion may have other consequences. Formed as it

was by the minds of heroic voyagers, it was also men, it may be, our image of mankind no longer that preposterous figure at the center, but a degraded victim off the margins of reality and life, with blood, men, men, men become men.

To see the earth as it truly is, small and blue and beautiful in that eternal silence where it floats, is to see ourselves as riders on the earth together, **brothers** on that bright loveliness in the eternal cold—brothers who know now they are truly brothers.

Excerpt from "A Reflection: Riders on Earth Together, Brothers in Eternal Cold" by Archibald MacLeish, New York Times, December 25, 1968

Students completing the assessment electronically will be able to access the following glossary items with a mouseover


brothers: archaic usage; used metaphorically to indicate familial bonds

Question B-11 (1 point)

TIME 100 Photos: Earthrise
New York Times: Riders on Earth Together...

Which emotional response to *Earthrise* do the astronauts aboard Apollo 8 and the poet of “Riders on Earth Together...” have in common?

They share a profound sense of



unease.

wonder.

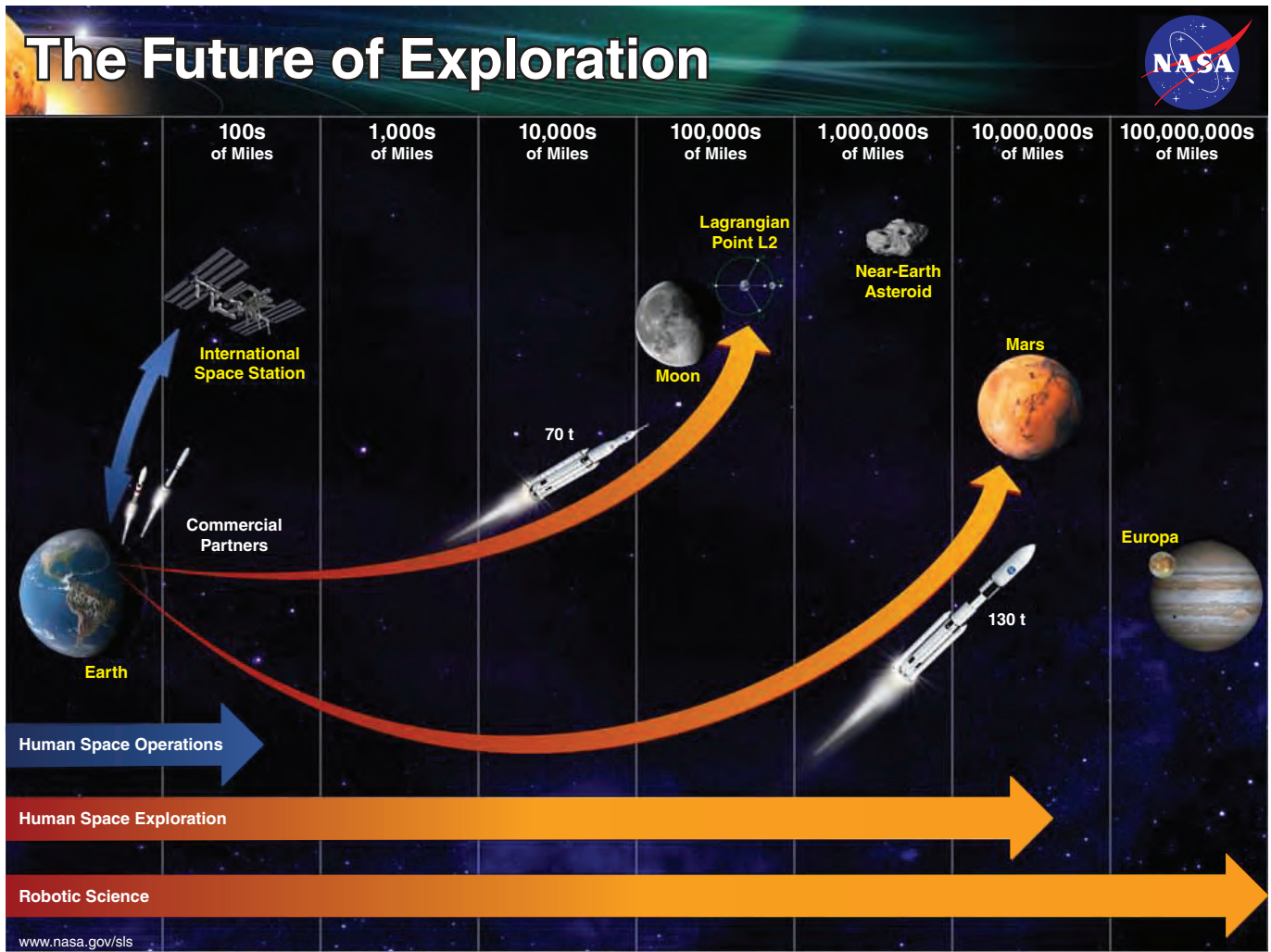
certainty.

alienation



In the following texts

An infographic and a magazine article, both titled “The Future of Exploration,” present different perspectives on what this means.

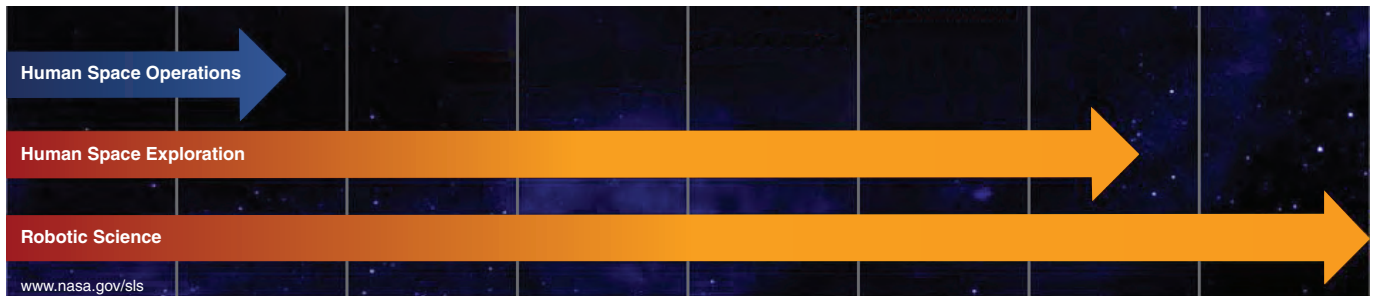


©NASA

Question B-12 (1 point)

In which sector did the 1968 Apollo 8 mission operate?

Click on the arrow to indicate your response.



JUNE 2018 / SOCIETY

The Future of Exploration

In the age of Google Maps, what's left to discover?

BY KATE HARRIS

ILLUSTRATION BY WENTING LI

Updated 11:00, Mar. 12, 2019 | Published 13:00, Jun. 14, 2018



ALL THE EXPLORERS I worshipped in high school turned out to be hacks. The Polos, the Columbuses, the Franklins of the world were less seekers of truth or beauty, as I'd naively believed based on romanticized accounts of their exploits, than servants of commerce or conquest. These men—they were almost always men—"discovered" lands that existed quite vividly for those already living in them, and they evangelized the sort of "progress" that overruns everyone and everything in its path. I used to want to be an explorer when I grew up, having misunderstood what that meant. The identity crisis was mine, but exploration itself is overdue for an exegesis. Does an enterprise with such a troubled past deserve a future?

Exploration has always been about the extraction of resources: gold, spices, fur, oil, or fame for being “first.” As such, the most competent explorers at work today are robots: the satellites, space probes, and rovers mindlessly charting the places humans can’t go and, in some cases, the places we can—and already have. Headlines recently trumpeted the discovery, based on a vast guano stain spotted from space, of an Adélie penguin supercolony. The penguins were hardly a revelation to those who frequent the Danger Islands of Antarctica, including Canadian Geoff Green, founder of the educational foundation Students on Ice. As proof, he shared a video, from seven years earlier, of students taking photos of the teeming, tuxedoed birds.

Precedent only counts, it seems, if documented in a certain way and by certain sanctioned elites. In 2013, some members of the Moose Cree First Nation in northern Ontario were similarly indignant when media announced that Adam Shoalts, a “professional explorer and adventurer,” as he calls himself, “discovered” waterfalls in their traditional territory (when he accidentally canoed over them, no less). In his biography for talks and events, Shoalts asserts that he “has, literally, changed the map of Canada,” referring to how charts of the Agassiz River were modified to include new symbols for waterfalls and to adjust the placement of some symbols for rapids. But is updating maps with minor landmarks really the exalted end of all our exploring? Does a more detailed chart of a place, as T. S. Eliot famously put it, let us know it for the first time? Jorge Luis Borges’s short story “On Exactitude in Science,” which elaborates on a concept from a Lewis Carroll novel, describes a civilization so obsessed with cartographic accuracy that its maps expand in scale and resolution until they coincide, detail for detail, with the world. “Succeeding generations,” Borges remarks, “came to judge a map of such magnitude cumbersome.”

Literature offers epiphanies no explorer’s chart can yield. If industrial geologists and other professional explorers have defined modern-day exploration on their own terms—as the science of acquisition or an exercise in nostalgia—nothing prevents you and me from envisioning it instead as an art, a pursuit whose outcomes are appreciated not for technical precision so much as beauty or emotional heft, the change in consciousness they provoke. By this measure, the Voyager spacecraft mission, launched in 1977, is meaningful less for the new facts it has amassed and more for the “pale blue dot” photograph of the Earth made puny by its cosmic context. “In our obscurity, in all this vastness,” observed astronomer and writer Carl Sagan, “there is no hint that help will come from elsewhere to save us from ourselves.”

- 5 The world is worn thin with our looking, our wanting to know, which is too often a pretext for wanting to possess and control. So forget planting flags and leaving footprints. Let explorers, in the historic sense of the word, go extinct. The future of exploration requires stripping the enterprise of its ego, its colonial cruelties, its compulsions to name and claim—stripping it of everything but a sense of wonder. Consider Eliot’s other, less quoted, take on the venture:

*Old men ought to be explorers
Here and there does not matter
We must be still and still moving
Into another intensity
For a further union, a deeper communion.*

The end of all our exploring, then, is not knowledge but kinship—a deepened sense of connection to the planet and to each other, earthlings every one, even the penguins. At stake is not simply the soul of exploration but the well-being of our world. If we don't collectively wake up to our shared fragility and fate, and change our ways, none of our maps will matter.

<https://thewalrus.ca/the-future-of-exploration/>

How did the author initially view explorers?



**as brilliant
scientists**



**as enterprising
capitalists**



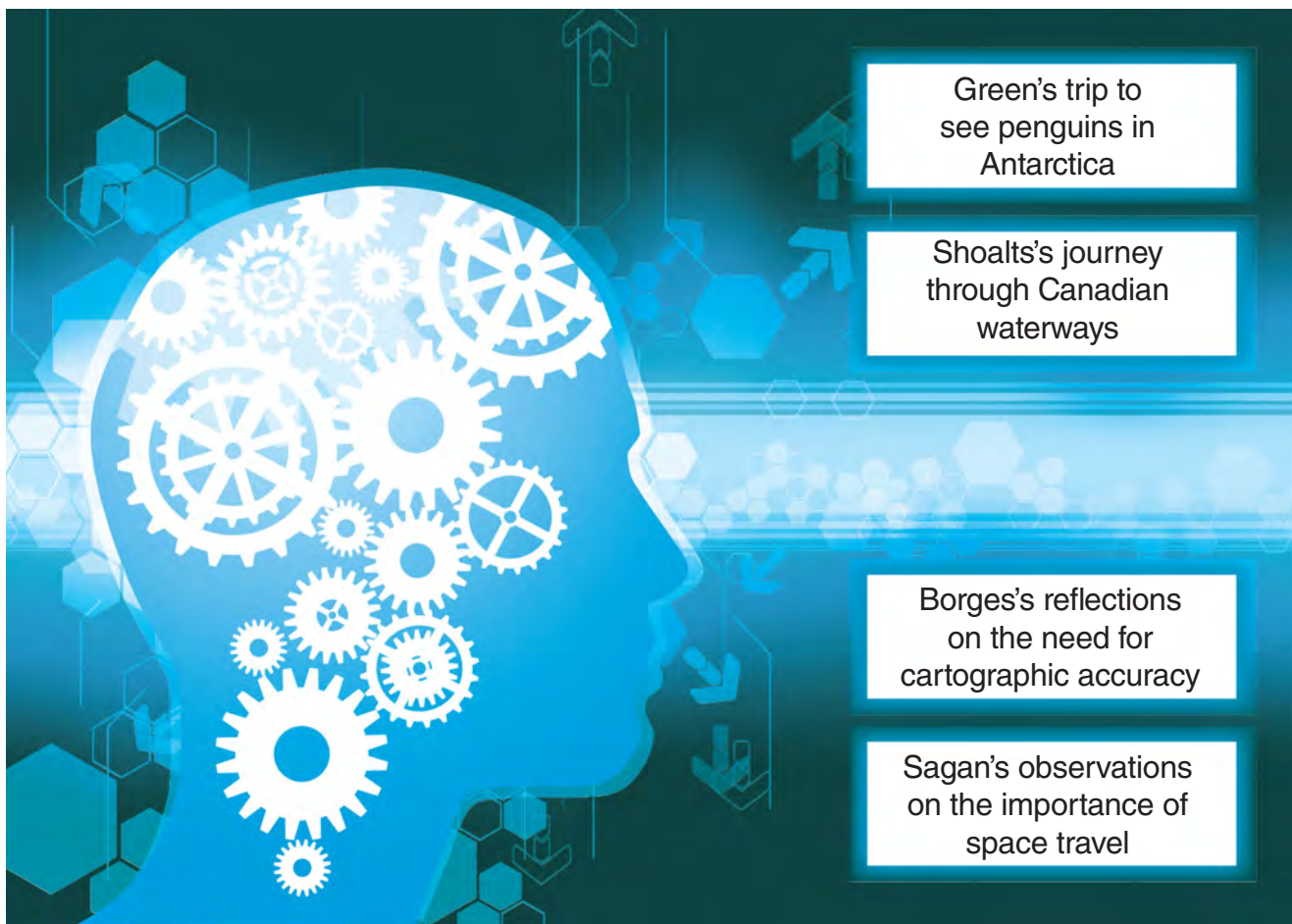
**as heroic
adventurers**

“

The future of exploration requires stripping the enterprise of its ego, its colonial cruelties, its compulsions to name and claim.

”

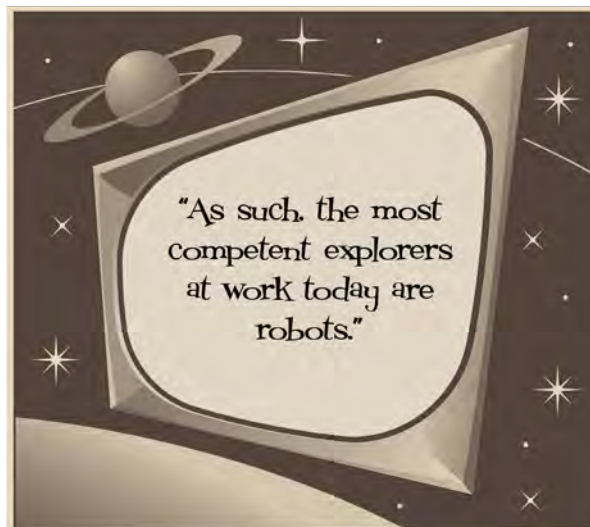
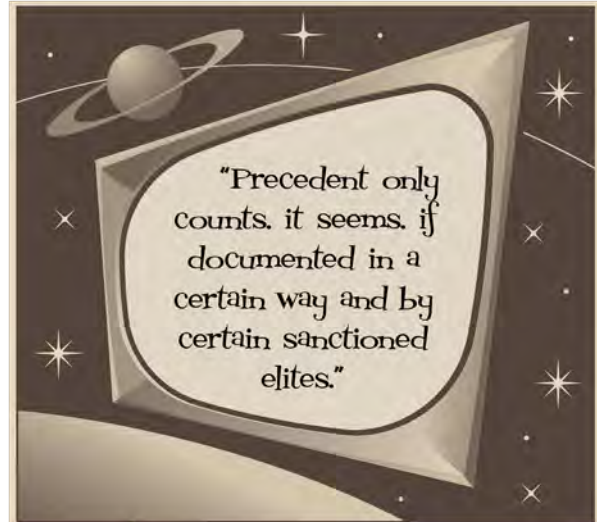
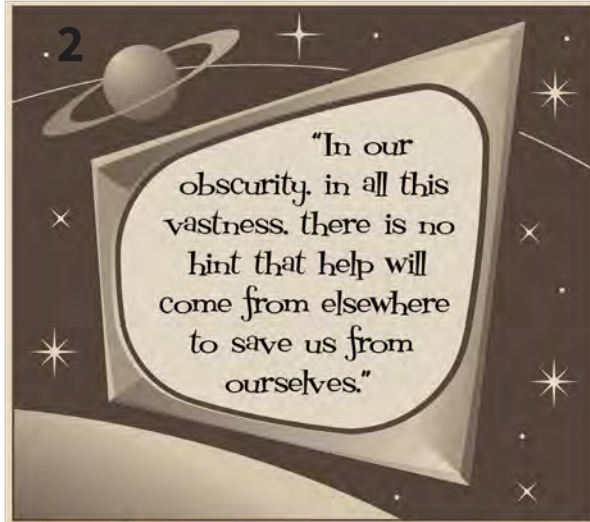
Which example best illustrates the author’s argument that traditional exploration is driven by ego?



Question B-15 (1 point)

NASA: The Future of Exploration
The Walrus: The Future of Exploration

Which quotation from *The Walrus* article most closely corresponds with the NASA infographic on the future of space exploration?





Essential Question

To what extent does the desire to explore and discover affect humans?



Writing Pathway



Click on your preferred Writing Pathway to continue to the extended written response.



1

People have responsibilities as they explore and discover.



2

The urge to explore and discover reveals aspects of human nature.

Question B-16 (12 points)

1

Writing Pathway

People have responsibilities as they explore and discover.

- You must express yourself in an extended written format of your choice.
- You must communicate insights that demonstrate your creative, reflective, and/or critical thinking skills.
- You may refer to the texts, but you are not required to do so.

Suggested time: 25 minutes

Question B-16 (12 points)

2

Writing Pathway

The urge to explore and discover reveals aspects of human nature.

- You must express yourself in an extended written format of your choice.
- You must communicate insights that demonstrate your creative, reflective, and/or critical thinking skills.
- You may refer to the texts, but you are not required to do so.

Suggested time: 25 minutes



SELF-REFLECTION

Take a moment to reflect on your experience with the assessment.

Your feedback will provide valuable information to the assessment developers.

**This component is not scored and your responses will be confidential.*

Question 1

In order to get ready for this assessment, I...

(Select all that apply)

- ☐ prepared ahead of time in class.
- ☐ prepared with my peers.
- ☐ prepared on my own.
- ☐ did not prepared.
- ☐ Other

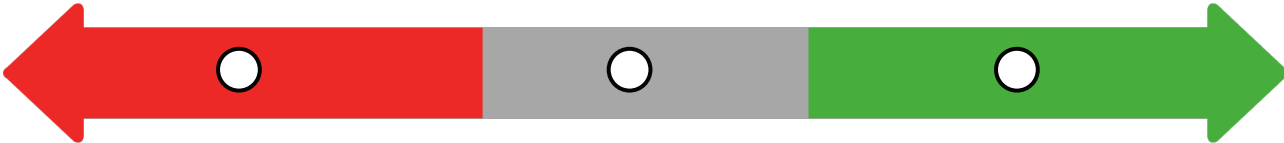
I prepared by...

- ☐ doing the sample assessment.
- ☐ looking at online videos.
- ☐ looking at online scoring rubrics.
- ☐ looking at online student exemplars.
- ☐ Other

Question 2

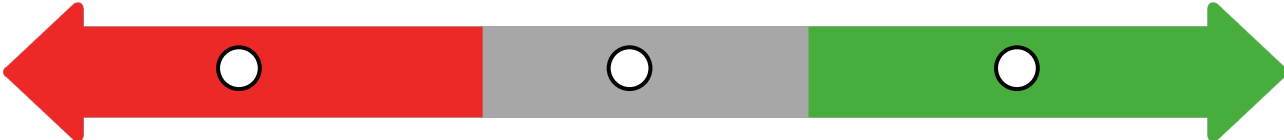
This assessment let me demonstrate my ability in literacy:

Disagree unsure Agree



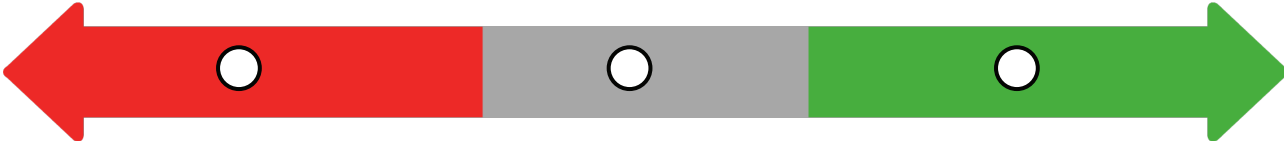
I was able to comprehend the texts:

Disagree unsure Agree



I was able to communicate in writing:

Disagree unsure Agree



Question 3

This assessment let me demonstrate the following competencies:

(Select all that apply)

- ☐ Critical and Reflective Thinking
- ☐ Creative Thinking
- ☐ Communication
- ☐ Positive Personal and Cultural Identity
- ☐ Personal Awareness and Responsibility
- ☐ Social Awareness and Responsibility

Question 4

I encountered challenges during this assessment.

- ☐ Yes
- ☐ No

The challenges I encountered on the assessment were with:

(Select all that apply)

- ☐ the texts.
- ☐ the online format.
- ☐ the length of time.
- ☐ the amount of writing.
- ☐ the overall difficulty.

Question 5

A key takeaway for me after completing this assessment is:

Question 6

Do you have any feedback or comments about the assessment?



Grade 12 Literacy Assessment

SELECTED RESPONSE QUESTIONS

Sample Assessment Answer Key



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Ministry of
Education



Answer Key:

Note: Consult the documents on the Ministry website for further details on constructed response questions such as overview of tasks, student exemplars and rubrics.

Question Number	DOK Level	Point Value	Correct Response
A-1	2	1	A (unimate)
A-2	2	1	A (a time of limited progress)
A-3	3	1	D (to increase corporate profit)
A-4	2	1	C (... can only be answered by experiencing life.)
A-5	2	1	C (tool)
A-6	3	2	A.I. Timeline: tasks are defined by human programmers Both: communicates with humans; uses data to answer questions Hitchhiker's Guide to the Galaxy and A.I.: designs its own upgrades; possesses self-awareness
A-7	3	1	B (AI may develop goals not aligned with societal values.)
A-8	2	1	A (rational thought)
A-9	3	1	B (to emphasize the complexity of the human mind)
A-10	3	6	constructed response question
A-11	3	12	constructed response question
B-1	3	1	A (challenge prevailing world views)
B-2	2	1	B (deceitful)
B-3	2	1	C (Travel World)
B-4	3	1	C (reconsider historical perspectives)
B-5	2	1	B (1050)
B-6	1	1	D (longitude)
B-7	2	1	B (Many old maps contain features recognizable to readers today.)
B-8	1	1	D (between 1489 and 1529)
B-9	1	1	B (from a spacecraft circling the moon)
B-10	3	1	A (People began to realize that the planet is finite.)
B-11	3	1	B (wonder)
B-12	1	1	B (Human Space Exploration)
B-13	1	1	C (as heroic adventurers)
B-14	2	1	B (Shoalt's journey through Canadian waterways)
B-15	3	1	C ("As such, the most competent explorers at work today are robots.")
B-16	3	12	constructed response question

Quick Facts

- The Graduation Numeracy Assessment is a new provincial assessment and a graduation requirement for all students.
- The Graduation Numeracy Assessment is not tied to a specific math course. Rather, it evaluates a student's numeracy skills developed over the course of their education.
- Students will take the assessment in Grade 10.
- Students can re-take the Graduation Numeracy Assessment to improve their proficiency score. Their best level achieved will be counted as their final result.
- Results will be reported using a proficiency scale.
- Students will access results and a personalized performance report through the [StudentTranscripts Service](#).
- The Graduation Numeracy Assessment typically requires two hours to complete; however, students may use an additional hour if they require the extra time.

What do the proficiency categories look like?

Proficiency	→			
	Emerging (1)	Developing (2)	Proficient (3)	Extending (4)
	The student demonstrates an initial understanding of the concepts and competencies relevant to the expected learning.	The student demonstrates a partial understanding of the concepts and competencies relevant to the expected learning.	The student demonstrates a complete understanding of the concepts and competencies relevant to the expected learning.	The student demonstrates a sophisticated understanding of the concepts and competencies relevant to the expected learning.

Will results be considered by post-secondary institutions?

Each post-secondary institution has the authority to determine admission requirements for students. Some have already indicated they will not use the Graduation Numeracy Assessment for admissions at this time. It is possible others will use it to inform decisions on admissions. Students may wish to contact the institution they are applying to for more information.

Employers may also be interested in a student's assessment results, as evidence of their achievement in numeracy.

More questions? Visit the [Ministry of Education website](#) for more information about the Graduation Numeracy Assessment, including a sample assessment and videos to help students prepare.

NEW!

Graduation Numeracy Assessment

Information for Parents & Students
December 2018



BRITISH COLUMBIA
Ministry of Education

www.curriculum.gov.bc.ca

GRADUATION NUMERACY ASSESSMENT



Why is there a new provincial assessment?

British Columbia has a great education system, and we have the opportunity to make it even better. BC is dedicated to maintaining its position as a global leader in education by pioneering systemic changes that prepare students for a rapidly changing world.



Universities, colleges and employers tell us they are looking for a new type of graduate—one with strong critical-thinking and problem-solving skills. That's why we are modernizing our curriculum and creating new assessments that align with the updated curriculum. The Graduation Numeracy Assessment is a key part of this new framework.

Past exams were a one-size-fits-all approach, with largely multiple-choice formats that assessed a student's knowledge based on content and facts.

The new Graduation Numeracy Assessment is more interactive and engaging. It assesses a student's understanding, application of knowledge and deeper learning, and has students apply mathematical reasoning learned throughout their education.

What is "numeracy"?

Just as we support students to become literate, we must also support them to become numerate. For the purpose of the Graduation Numeracy Assessment, numeracy is defined as **the ability, willingness, and perseverance to interpret and apply mathematical understanding to solve problems in contextualized situations, and to analyze and communicate these solutions in ways relevant to the given context.**

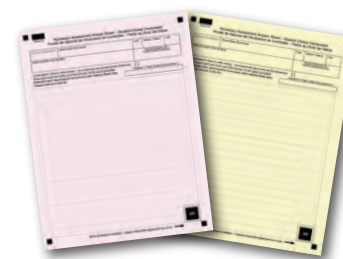
What does the Graduation Numeracy Assessment look like?

The assessment is based on mathematical concepts learned across multiple subjects from kindergarten to Grade 10. Students will use five numeracy processes (different ways of thinking and working) to solve problems: **interpret, apply, solve, analyze, and communicate.**

The assessment is delivered online and has three essential components:

1. Common component: 24 computer-scored questions completed online by all students.

2. Student-choice component: Two written-response questions completed on paper. These are deeper questions that require students to present their solutions in context, and provide detailed explanations to justify their thinking. These questions are based on the information and work the student will have completed earlier in the common component. Students pick 2 of 4 possible questions and take their analysis deeper.



3. Self-reflection component: These questions ask the student to reflect on their experience with the assessment. The process of reflection becomes part of their learning. This portion is completed online and is not marked.



How should students prepare?

There are pre-assessment activities for students to explore ahead of time and help them to prepare. These include the sample assessment and a series of videos that explain how to solve questions using the five numeracy processes.



Graduation Numeracy Assessment 2017 SAMPLE ASSESSMENT



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Ministry of
Education



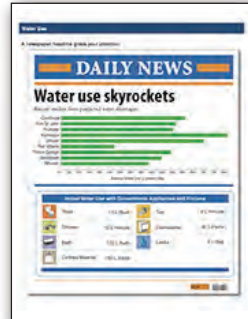
Common Component



Questions on computer,
responses completed on computer

In this part you will:

- read two tasks
- complete 6 questions for each task



3. Which of the following statements are true? Select all that apply.

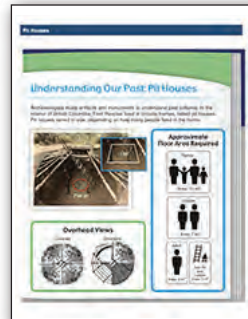
Select all that apply:

☐ Showering

☐ Brushing teeth

☐ Flushing the toilet

☐ Drinking and cooking



4. You want to estimate the number of people who might live in a pit house. Which of the following is required to determine the best estimate?

Select all that apply:

☐ Number of people who live in post-pit houses

☐ Number of people who live in post-pit houses and are under 18

☐ Number of people who live in post-pit houses and are over 18

☐ Number of people who live in post-pit houses and are under 18 and over 18

5. Which expression could you use to estimate how many people live in a pit house who are under 18?

Select all that apply:

☐ $\frac{1}{2} \times 300$

☐ $\frac{1}{2} \times 250$

☐ $\frac{1}{2} \times 200$

☐ $\frac{1}{2} \times 150$

6. Which expression could you use to estimate how many people live in a pit house who are over 18?

Select all that apply:

☐ $\frac{1}{2} \times 300$

☐ $\frac{1}{2} \times 250$

☐ $\frac{1}{2} \times 200$

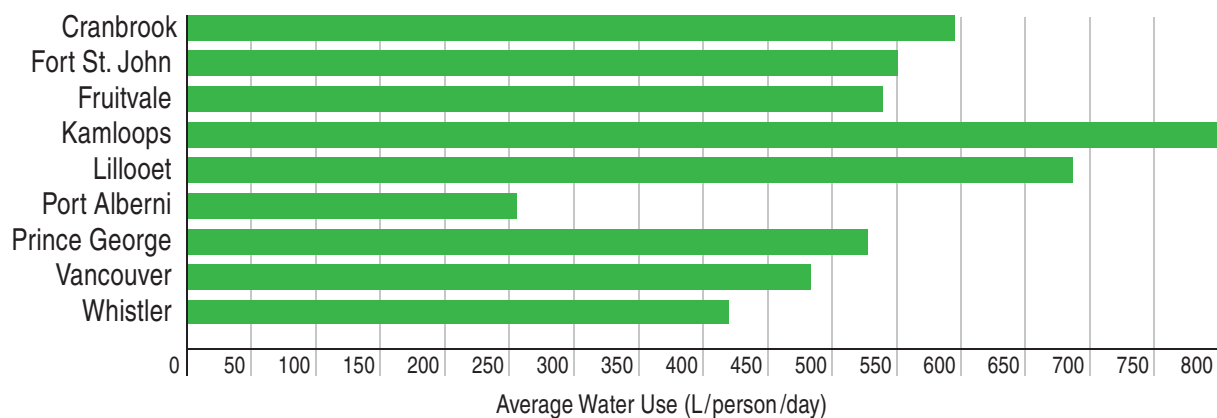
☐ $\frac{1}{2} \times 150$

A newspaper headline grabs your attention.








DAILY NEWS

Water use skyrockets

Recent studies have predicted water shortages.



Indoor Water Use with Conventional Appliances and Fixtures

	Toilet	13 L/flush		Tap	8 L/minute
	Shower	10 L/minute		Dishwasher	40 L/cycle
	Bath	100 L/bath		Leaks	3 L/day
	Clothes Washer	150 L/cycle			

\$2.75 Our office 14 1st Street

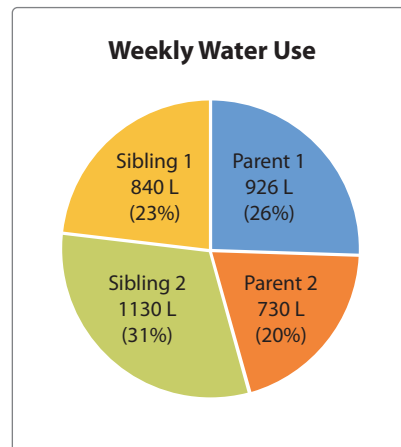
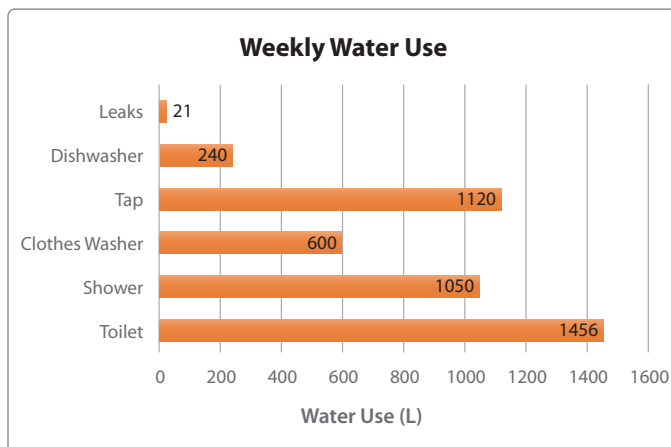
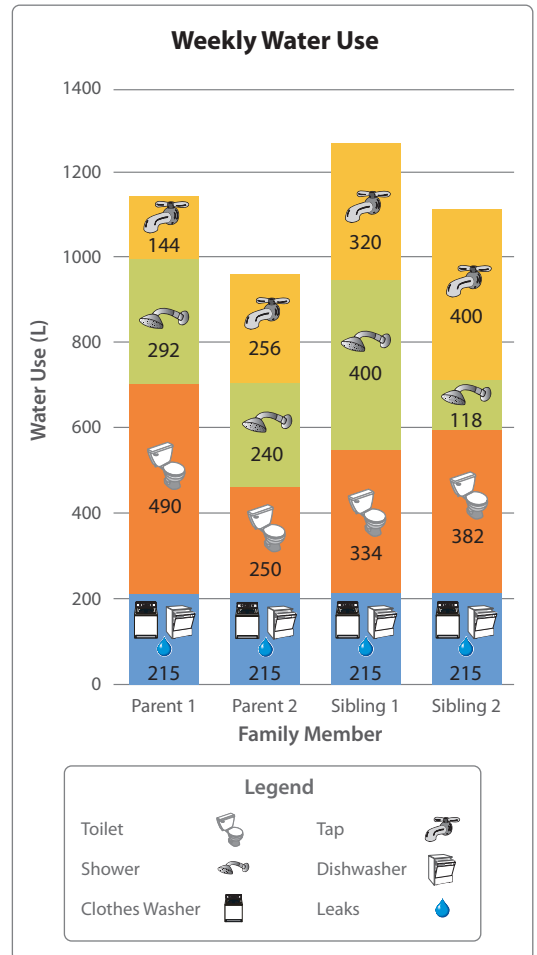
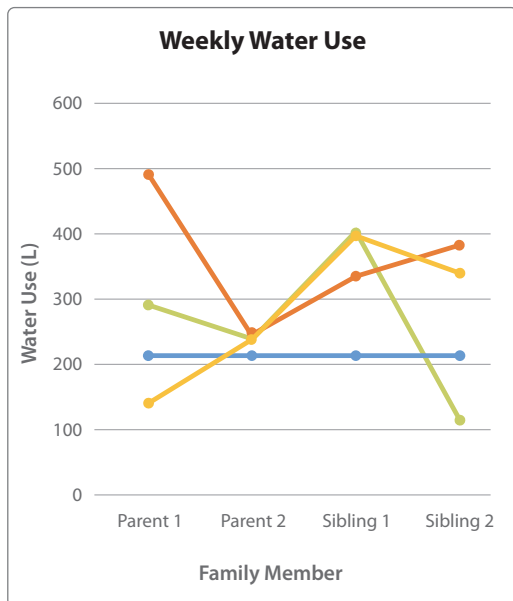
Volume 51 / Est. 1987

1. Which of the following communities uses on average between 250 and 450 L/person/day of water?

Select all that apply.

- ☐ Whistler
- ☐ Vancouver
- ☐ Port Alberni
- ☐ Prince George

2. Which representation of a family's weekly water use best illustrates where and how water could be saved?



3. A family of four wants to calculate each family member's daily water use from the appliances they share (dishwasher and clothes washer). The family does 6 dishwasher loads and 5 clothes washer loads each week.

Select one expression they could use to do this calculation.



represents the amount of water used per dishwasher load.



represents the amount of water used per clothes washer load.

- ☐ $\frac{6 \text{ } \text{dishwasher icon} + 5 \text{ } \text{clothes washer icon}}{4}$
- ☐ $\frac{6 \text{ } \text{dishwasher icon} + 5 \text{ } \text{clothes washer icon}}{7}$
- ☐ $\frac{6 \text{ } \text{dishwasher icon} + 5 \text{ } \text{clothes washer icon}}{4} \div 7$
- ☐ $\frac{6 \text{ } \text{dishwasher icon} + 5 \text{ } \text{clothes washer icon}}{7} \div 4$
- ☐ $\frac{(6 + 5) (\text{dishwasher icon} + \text{clothes washer icon})}{4} \div 7$
- ☐ $\frac{(6 + 5) (\text{dishwasher icon} + \text{clothes washer icon})}{7} \div 4$




4. You calculate the average shower length to be 11 minutes and 15 seconds.

If everyone in a family of 5 showers daily, how much water would the family use for showering each week?

Answer to the nearest litre.

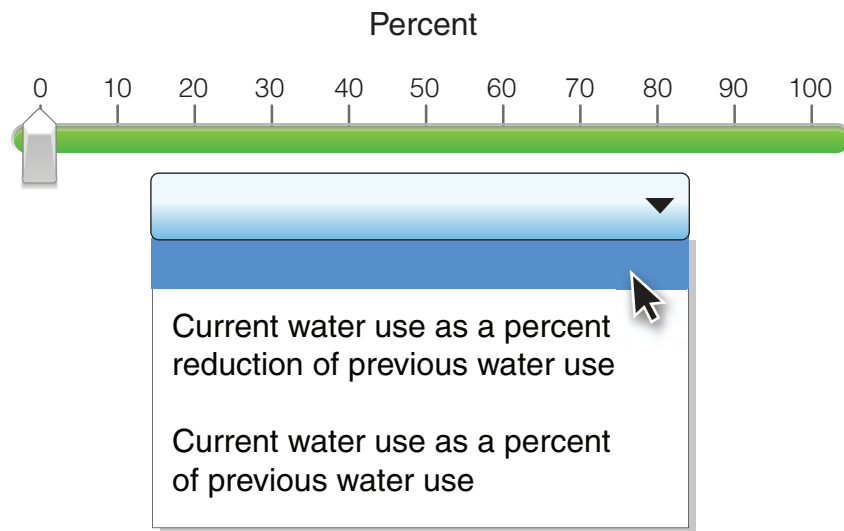
 L

5. A friend has worked to reduce their bathroom water use. You compare their current bathroom water use to their previous bathroom water use.







	Previous Bathroom Water Use (L/day)	Current Bathroom Water Use (L/day)
 Toilet	65	52
 Tap	48	32
 Shower	110	80

What can you say about their current bathroom water use compared to their previous bathroom water use?

Select your answer by using the drop-down menu to label the graph **and** by dragging the point to the correct location on the graph.



6. A family of four decides to challenge themselves to use less water. For 1 week, they record their water use.

	Water Use	Total Water Use (L)
 Toilet	4 flushes/person/day	1456
 Tap	5 min/person/day	1120
 Shower	8 min/person/day	2240
 Dishwasher	7 loads/week	280
 Clothes washer	4 loads/week	600
 Leaks	3 L/day	21
TOTAL		5717

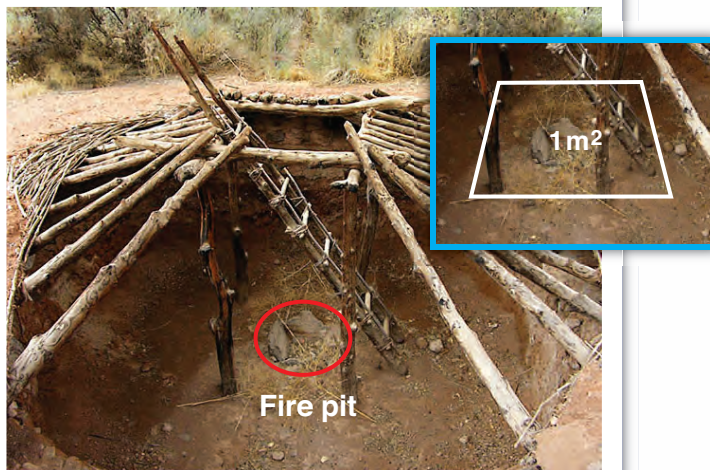
The family has decided on some strategies to reduce their total water use. Which strategies are **unreasonable**?

Select all that apply.

- ☐ Parent 1 strategy: Fix leaks
- ☐ Parent 1 strategy: Use the clothes washer 1 time/week
- ☐ Parent 2 strategy: Reduce tap use by $\frac{1}{4}$
- ☐ Sibling 1 strategy: Reduce shower time by $\frac{1}{3}$
- ☐ Sibling 1 strategy: Pack the dishwasher more efficiently and run 5 loads/week
- ☐ Sibling 2 strategy: Wash and rinse dishes by hand instead of using the dishwasher

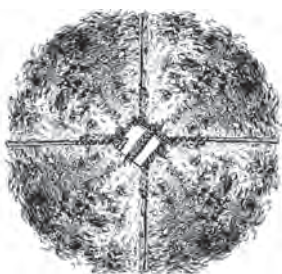
Understanding Our Past: Pit Houses

Archaeologists study artifacts and monuments to understand past cultures. In the interior of British Columbia, First Peoples lived in circular homes, called pit houses. Pit houses varied in size, depending on how many people lived in the home.

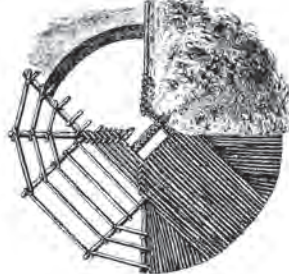


Overhead Views

Covered

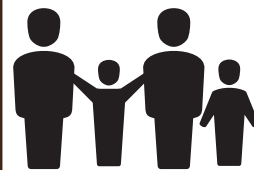


Structure



Approximate Floor Area Required

Family



Area: 10 m²

Couple



Area: 7 m²

Adult



Area: 4 m²



Fire Pit and Ladder
Area: 1 m²

7. You want to estimate the number of people who might have lived in a pit house.

Which of the following is required to determine the floor area needed?

- ☐ ladder length
- ☐ pit house height
- ☐ area required for living space
- ☐ dimensions of the top opening

8. Which expression could you use to estimate how many adults lived in a pit house with a diameter of 9 m?

☐ $\pi \left(\frac{9}{2}\right)^2 \times 4$

☐ $\pi (9)^2 \times 4$

☐ $\frac{\pi \left(\frac{9}{2}\right)^2}{4}$

☐ $\frac{\pi (9)^2}{4}$

9. Which strategies could you use to estimate how many people lived in 12 pit houses of similar size?

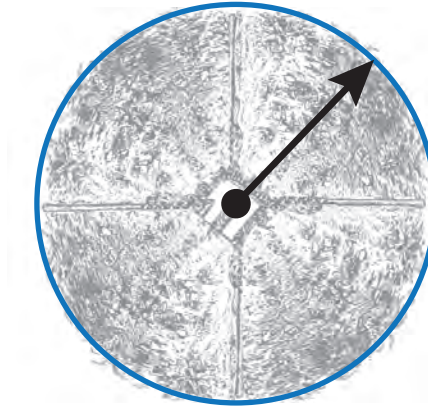
Select all that apply.

- ☐ Estimate the number of people who lived in 1 pit house and divide by 12.
- ☐ Estimate the number of people who lived in 1 pit house and multiply by 12.
- ☐ Estimate the total area of 12 pit houses and divide by the area required for 1 person.
- ☐ Estimate the total area of 12 pit houses and multiply by the area required for 1 person.

10. What radius is required for a pit house with 3 families and 2 couples?

Drag the point to show the required radius for the floor area of the pit house.

Answer to the nearest metre.



11. You estimate that approximately 10 adults lived in a pit house with a diameter of 8 m.

Using this estimate, how many adults might have lived in a pit house with a diameter of 12 m?

adults

12. An archeologist calculated how many people lived in a pit house with a floor area of 63 m^2 . He divided 63 m^2 by 4 and said 15.75 people. This is incorrect.

What mistakes did the archeologist make?

Select all that apply.

- ☐ diameter of pit house not used
- ☐ number of people not rounded
- ☐ age of occupants not considered
- ☐ gender of occupants not considered
- ☐ assumed only single adults lived there
- ☐ fire pit and ladder space not considered

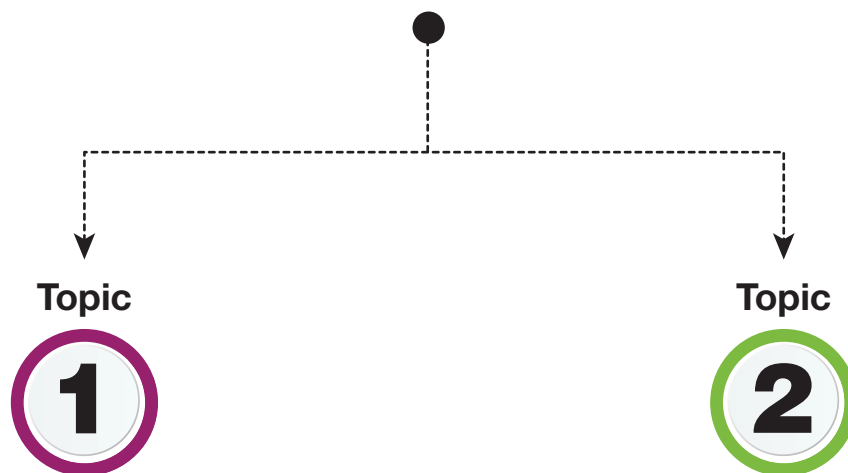
Student-Choice Component



Questions on computer,
responses completed on paper response sheet

Choose the numeracy task for which you would like to complete an extensive constructed response question. These questions are a logical progression from where the tasks are headed.

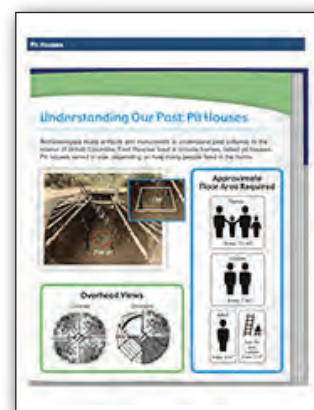
Think carefully; once you make your choice you must complete this question.



Water Use

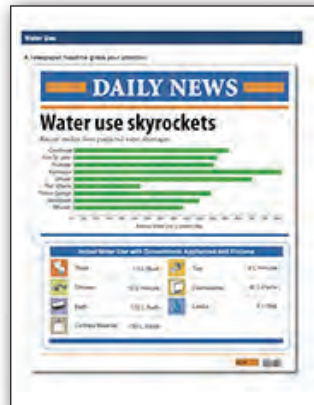


Pit Houses



You have chosen:

Water Use



High-efficiency appliances and fixtures can help reduce the amount of water we use.



13. You want to reduce your personal water use to 1050 L/week. You install high-efficiency appliances and fixtures, and change your water-use habits.

Plan a water budget for yourself for 1 week that meets this goal using the high-efficiency appliances and fixtures.

Explain and justify your solution.

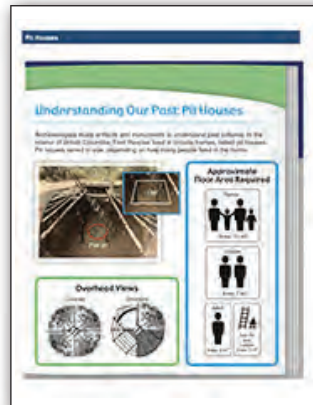
You must use everything in the table below at least once in the week.

High-Efficiency Appliances and Fixtures	
	Shower and/or bath
	Toilet
	Tap
	Dishwasher
	Clothes Washer

This question is to be answered on paper.

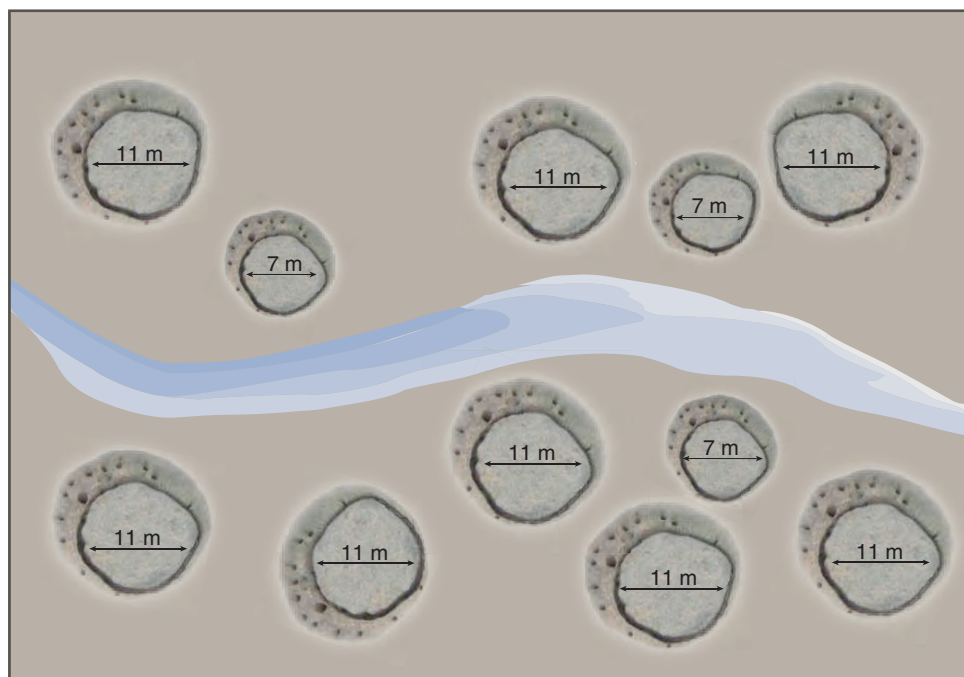
You have chosen:

Pit Houses



Pit Houses

13. Archaeologists examine the remains of a village of pit houses. Impressions of where the pit houses were located are still visible. The diagram below shows the remains of a village with a number of pit houses.



Estimate the number of people that could have lived in this village. State any assumptions made.

Explain and justify your solution.

This question is to be answered on paper.

In this part you will:

- read two tasks
- complete 6 questions for each task

Share-Split Contracts

One year ago, Jack and Jill, entered a licensing agreement. They have contributed a 50/50 percent of money to build the company.

CONTRACT

This contract grants the following license to Jack and Jill, who are hereby identified as the Parties to this contract. Jack and Jill, husband and wife, residing at 123 Main Street, New York, New York 10001.

I, the undersigned, do hereby agree to the terms of this contract.

I, the undersigned, do hereby agree to the terms of this contract.

I, the undersigned, do hereby agree to the terms of this contract.

I, the undersigned, do hereby agree to the terms of this contract.

I, the undersigned, do hereby agree to the terms of this contract.

(The Contract is signed online on our online games New-Jack and Jill. And it's ready to use after an individual who wishes to use this Contract.)

14. What information do you need to determine who has contributed the most to the company's success in 2010?

Select all that apply:

- ☐ Number of employees hired
- ☐ Profit margin over each operating year
- ☐ Importance of the company's customer
- ☐ Amount each investor contributed at the start
- ☐ Number of organizations the company consulted
- ☐ Number of months the company was in business

15. How often has contributed skill to the Company. Find ways to increase the best contributors in the Company after 5 years.

What if the following statements could be said?

- ☐ 20 000 x 10 = 10 x 20
- ☐ 20 000 x 1000 = 1000 x 20
- ☐ 20 000 x 10 = 1000 x 20
- ☐ 20 000 x 10 = 1000 x 2

[illegible]

28. If the hypergraph has 6 vertices, which is not of size 4 and has been 3-dimensional or not?

1	1	1
1	0	1
1	1	2
0	1	1

☐ Yes, it is 3D, because of something like this last.
 (Yes, has a 3D, object of something like this last.)
☐ Yes, has a 3D of the 3D of something like this last.
☐ Yes, has a 3D of the 3D of something like this last.

Five years ago, Jae Eun and Ted, started a company together. They each contributed a different amount of money to start the company.



The Company created several popular video games. Now Jae Eun and Ted receive an offer from an individual who wants to buy their company.

14. What information do you need to determine who has contributed the most to the company at any point in time?

Select all that apply.

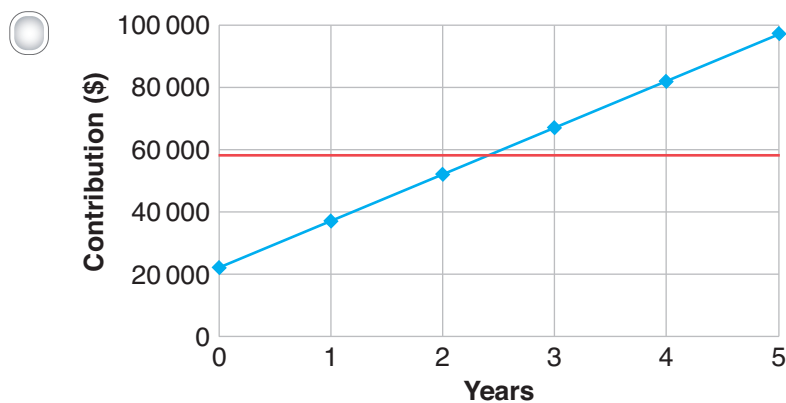
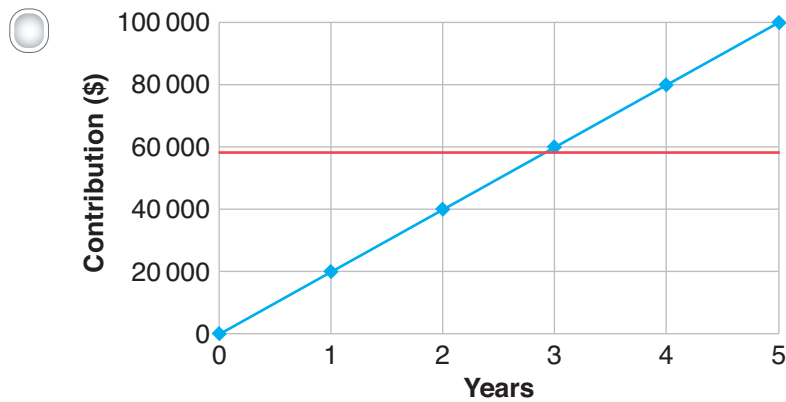
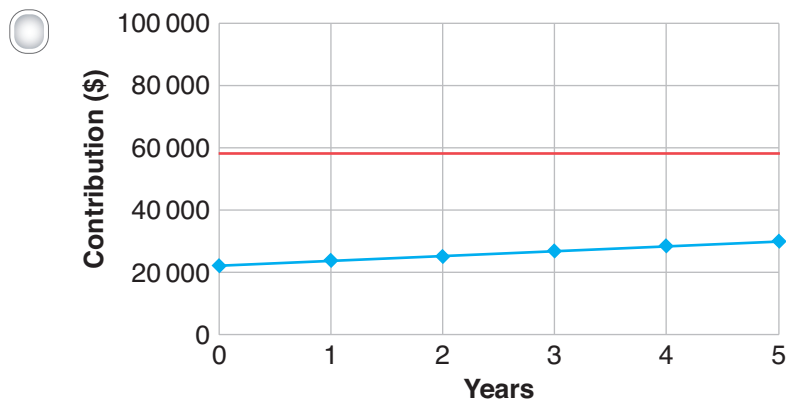
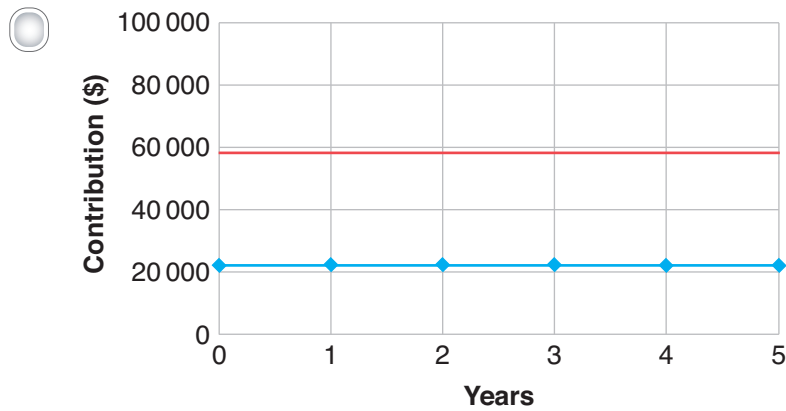
- ☐ number of employees hired
- ☐ profit earned from each video game sold
- ☐ original value of the computer equipment
- ☐ amount each founder contributed at the start
- ☐ number of video games the company produced
- ☐ number of months the company was in business

15. Jae Eun has contributed \$58 500 to The Company. Ted wants to calculate his total contribution to The Company after 5 years.

Which of the following expressions could he use?

- ☐ $22\,000 + 1250 \div 12 \times 5$
- ☐ $22\,000 + 1250 \times 12 \times 5$
- ☐ $22\,000 \times 12 \times 1250 \times 5$
- ☐ $22\,000 \times 12 \div 1250 \times 5$

16. Select the graph that shows both Jae Eun and Ted's individual contributions to The Company over the first 5 years.



17. Jae Eun contributed more than Ted towards The Company's start-up costs (including the computer equipment).

How much time after the start of The Company until Ted's contribution is equal to Jae Eun's contribution?

Answer to the nearest month.

year(s) and month(s)

18. One year after Jae Eun and Ted started their company, they agree to add the following to their contract.

ADDENDUM

The portion of The Company owned by each of The Founders is based on the total amount of money (includes the value of the computer equipment) each has contributed up to that point in time.

After 5 years, what portion of The Company does Ted own?

Answer to the nearest percent.

%

19. Five years after Jae Eun and Ted started their company, they receive two offers for their company.

OFFER 1	OFFER 2
Sale price: \$200 000	Sale price: \$600 000
The Founders will continue to run The Company for 5 more years and will each receive a salary of \$60 000 per year.	

Jae Eun wants to accept Offer 1 and Ted wants to accept Offer 2.

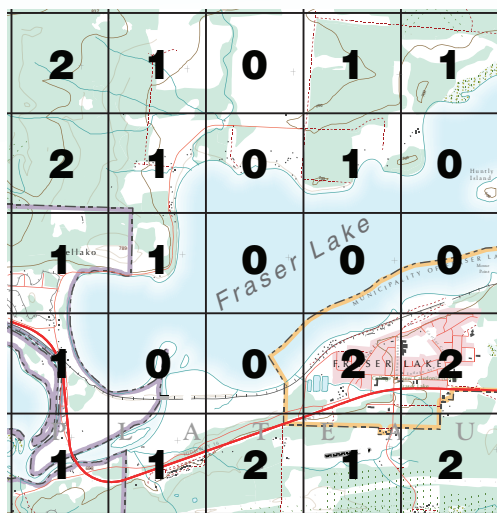
Drag and drop the outcome for each of their choices.

Jae Eun Offer 1	Ted Offer 2
lower immediate sale price and lower overall value	lower immediate sale price but higher overall value
higher immediate sale price but lower overall value	higher immediate sale price and higher overall value

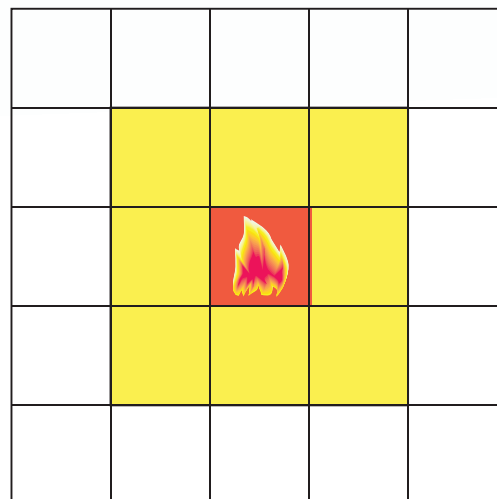
You are being trained in managing forest fires. Your Fire Fighting Training Manual describes a forest fire spread simulation.



The map below is a fire grid. It describes the likelihood of a fire spreading to different cells.



Fire may spread from one cell into neighbouring cells as shown:



Burning cell Neighbouring cell

Each cell has the following fire-spread rating reflecting the probability that fire will spread to that cell from a neighbouring cell:

Fire-Spread Rating	Probability of Spreading
0	Fire has a 0% chance of spreading into it from neighbouring cells
1	Fire has a 50% chance, or probability of 0.5, of spreading into it from neighbouring cells
2	Fire has an 80% chance, or probability of 0.8, of spreading into it from neighbouring cells

Example: At time zero, the forest in the highlighted cell (🔥) is burning. There are many possible ways that the fire can spread. Two possible scenarios are shown below.



1	1	1	2
1	🔥	1	1
0	1	2	0
1	1	1	1



Scenario 1

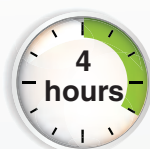
3 neighbouring cells are burning.



1	1	1	2
1	🔥	1	1
0	1	2	0
1	1	1	1



5 more neighbouring cells are burning.



	1	1	2
1	🔥	1	1
0			0
1	1	1	1



Scenario 2

5 neighbouring cells are burning.


1	1	1	2
1	🔥	1	1
0	1	2	0
1	1	1	1



5 more neighbouring cells are burning.

1			2
	🔥		1
0	1		0
1	1	1	1

20. If the highlighted cell is burning, which is true of the cell that has a fire-spread rating of 2?

1	1	1	1
1	0	1	1
1	1		2
0	1	1	1

- ☐ Fire has a 0% chance of spreading into the cell.
- ☐ Fire has a 100% chance of spreading into the cell.
- ☐ Fire has a two out of five chance of spreading into that cell.
- ☐ Fire has a four out of five chance of spreading into that cell.

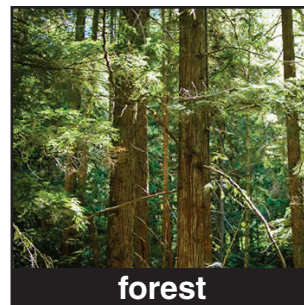
21. The environment has an effect on how quickly a fire spreads. Put the following landscapes in order from lowest-to-highest fire-spread rating.

--	--	--	--




**Low fire-spread
rating (0)**


**High fire-spread
rating (2)**



22. At time zero, the highlighted cell is burning.

Create an equation to calculate the probability that a fire will spread to cell A after 4 hours.

1	1	2	2	1
1	1	1	2	1
1	0	0		1
1	1	1	0	1
1	2	1	1	1

A 

Drag and drop the operations and probabilities into the boxes below.


—	+	×	÷
0	0.5	0.8	1

Probability =

--	--	--


23. At time zero, the highlighted cell is burning.



1	1	2	2	1
1	1	1	2	1
1	0	0		1
1	1	1	0	1
1	2	1	1	1

Select the cells that will be burning after 2 hours in the worst-case scenario.



1	1	2	2	1
1	1	1	2	1
1	0	0		1
1	1	1	0	1
1	2	1	1	1

24. After 4 hours, the highlighted cells are burning.



1	1	2	2	1	1	1	1
1	0	0	1	1	1	1	1
1	1	1	1	1	1	0	1
0	1	1	1	1	0	1	1
1	1	1	1	2	2	1	1
1	1	1	2	1	2	2	1
2	1	1	1	1	0	1	1
2	1	1	1	1	1	0	1

In which cell did the fire start?



1	1	2	2	1	1	1	1
1	0	0	1	1	1	1	1
1	1	1	1	1	1	0	1
0	1	1	1	1	0	1	1
1	1	1	A	B	2	1	1
1	1	1	C	D	2	2	1
2	1	1	1	1	0	1	1
2	1	1	1	1	1	0	1

- ☐ Cell A
- ☐ Cell B
- ☐ Cell C
- ☐ Cell D

25. At time zero, the highlighted cell is burning.



1	2	2	1	2	1	0	1
1	1	1	1	1	2	1	1
1	1		1	1	1	1	2
2	1	1	2	2	1	1	1
2	1	1	2	1	1	1	1
0	1	1	1	1	1	1	1
0	1	1	0	1	2	2	2
0	0	2	1	1	2	2	2

Which of the following shows a possible fire-spread pattern after 6 hours?



1	2	2	1	2	1	0	1
1	1	1	1	1	2	1	1
1	1		1	1	1	1	2
2	1	1	2	2	1	1	1
2	1	1	2	1	1	1	1
0	1	1	1	1	1	1	1
0	1	1	0	1	2	2	2
0	0	2	1	1	2	2	2



1	2	2	1	2	1	0	1
1	1	1	1	1	2	1	1
1	1		1	1	1	1	2
2	1	1	2	2	1	1	1
2	1	1	2	1	1	1	1
0	1	1	1	1	1	1	1
0	1	1	0	1	2	2	2
0	0	2	1	1	2	2	2



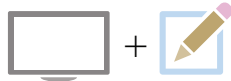
1	2	2	1	2	1	0	1
1	1	1	1	1	2	1	1
1	0		1	1	1	1	2
2	0	1	2	2	1	1	1
2	1	1	2	1	1	1	1
0	1	1	1	1	1	1	1
0	1	1	0	1	2	2	2
0	0	2	1	1	2	2	2



1	2	2	1	2	1	0	1
1	1	1	1	1	2	1	1
1	1		1	1	1	1	2
2	1	1	2	2	1	1	1
2	1	1	2	1	1	1	1
0	1	1	1	1	1	1	1
0	1	1	0	1	2	2	2
0	0	2	1	1	2	2	2



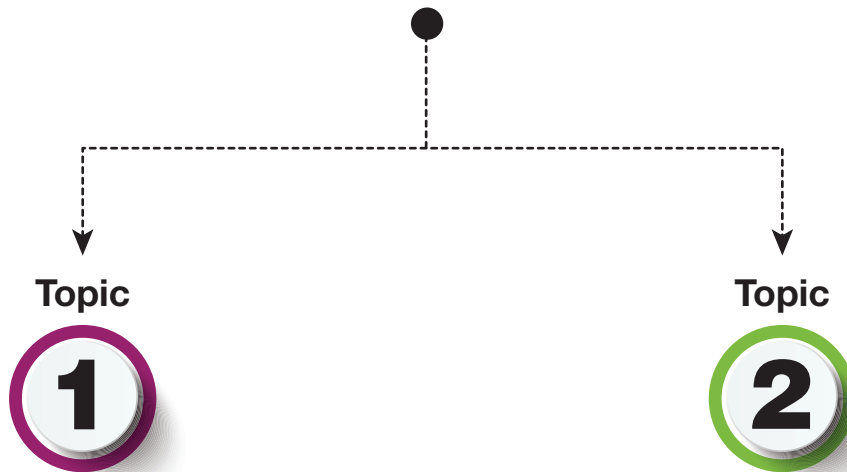
Student-Choice Component



Questions on computer,
responses completed on paper response sheet

Choose the numeracy task for which you would like to complete an extensive constructed response question. These questions are a logical progression from where the tasks are headed.

Think carefully; once you make your choice you must complete this question.



Video Game Company



Forest Fires



You have chosen:

Video Game Company



26. Five years after the start of The Company, The Founders decide to sell it for \$750 000. To determine their fair share of the sale price, they agree that any contributions made towards start-up costs will be worth 1.5 times their original value. Contributions made after start-up will not be adjusted.

How much should Jae Eun and Ted each receive from the sale of their company?

Explain and justify your solution.

This question is to be answered on paper.

You have chosen:

Forest Fires



Forest Fires

You are being tested on managing forest fires. Your Fire Fighting Training Manual describes a forest fire spread situation.

NORTH REGION
Fire Fighting Training Manual
Forest Fires: How They Spread

The map below is a 6x6 grid. It shows the location of a fire and the direction it is spreading. The fire is located at the intersection of the 3rd row and 4th column. The fire is spreading in the four cardinal directions (up, down, left, right).

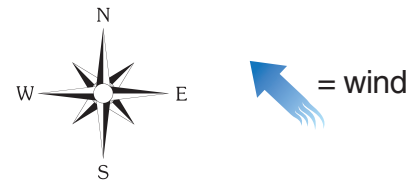
Fire spreads from one cell into neighboring cells in all four directions.

Each cell has a number representing the probability that the fire will spread to that cell. The numbers are as follows:

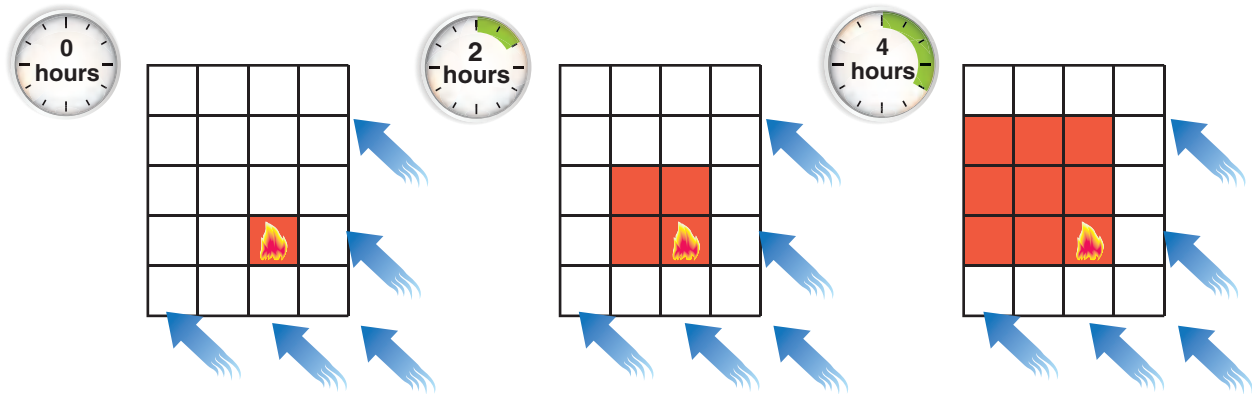
Fire Spread Rating	Probability of Spreading
0	Fire has a 0% chance of spreading into 0 from neighboring cells.
1	Fire has a 25% chance of spreading into 1, or spreading into 2 from neighboring cells.
2	Fire has a 50% chance of spreading into 2, or spreading into 3 from neighboring cells.

Forest Fires

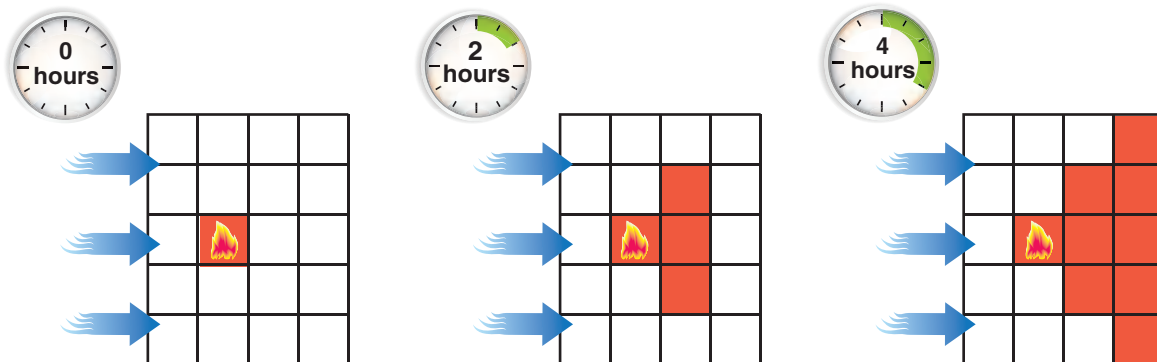
Strong wind conditions can affect the spread of fire into neighbouring cells.



Wind from the south-east



Wind from the west



Wind **increases** the probability of fire spreading into neighbouring cells which are **downwind**, and wind **decreases** the probability of fire spreading into neighbouring cells which are **upwind**:

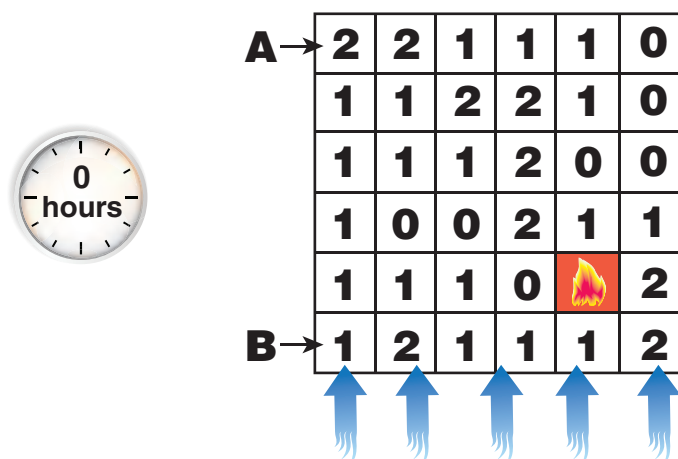
Fire-Spread Rating	Probability of Fire-Spreading		
	Neighbouring (no wind)	Downwind Neighbouring	Upwind Neighbouring
0	0	0	0
1	0.5	0.8	0.2
2	0.8	1.0	0.3

26. At time zero, the highlighted cell is burning and there is a strong, constant wind blowing from the south. There are people living in the areas within cell A and cell B.

What is the minimum time it would take the fire to reach cells A and B?

What is the likelihood of the fire spreading to cells A and B within that time?

Explain and justify your solution.



This question is to be answered on paper.

Self-Reflection Component



Questions on computer,
responses completed on computer

In this part you will:

- complete 4 questions

A screenshot of the 'Graduation Numeracy Assessment Self-reflection' section. It contains four numbered questions with checkboxes for responses. Question 1 asks about the student's experience with the assessment. Question 2 asks about the student's confidence in their answers. Question 3 asks about the student's understanding of the assessment. Question 4 asks about the student's ability to apply their knowledge. Below the questions is a progress bar showing the current question number and a 'Next' button. At the bottom, there are four small icons representing different assessment components: 'Math', 'Reading', 'Writing', and 'Science'.

Self-Reflection

1. Reflect on your preparation for this assessment.

Select all the strategies that you used to prepare.

- ☐ I did the sample assessment.
- ☐ I watched the numeracy video(s).
- ☐ I reviewed the student sample responses online.
- ☐ I kept up with schoolwork.
- ☐ I prepared ahead of time with friends and teachers.
- ☐ While preparing, I asked for help when needed.

2. Reflect on your work on this assessment. Think about what you did well.

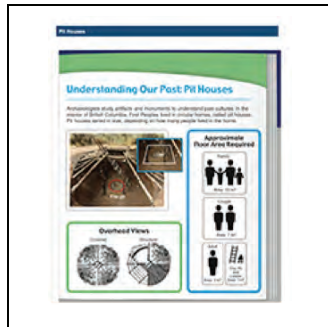
Select all that apply.

- ☐ I read each question carefully.
- ☐ I reviewed my answers before I submitted my assessment.
- ☐ I worked out responses on paper and checked my work.
- ☐ In the student-choice component, I thought carefully about my choice.

3. This assessment allowed me to demonstrate my ability in numeracy.



4. Order the four tasks from most interesting to least interesting.



Marking Rubric (Student Choice Question)

Snapshot*

4	Student's response demonstrates extensive understanding of the situation where all aspects of the problem are addressed. Solution is effective and comprehensive , calculations are relevant , and errors do not hinder reasonableness within the given context. Reasoning is clearly communicated .
3	Student's response demonstrates a sensible understanding of the situation where most aspects of the problem are addressed. Solution is reasonable ; calculations may contain errors. Reasoning can be followed .
2	Student's response demonstrates a basic understanding of the situation where aspect(s) of the problem are considered . Solution is incomplete but on the right track ; calculations may contain errors. Reasoning may be unclear or inconsistent.
1	Student's response demonstrates a limited understanding of the situation. Solution contains an ineffective approach and/or fundamental mathematical errors. Reasoning shows an attempt to engage with an aspect of the problem.
0**	Student's response work described by one or more of the following statements: <ul style="list-style-type: none"> • Information simply recopied from the problem. • Diagrams or calculations are unrelated to the problem. • Any answer without supporting work. • Response does not engage with an aspect of the problem. • All work is erased or crossed out.
NR	No response (answer sheet is blank or title only)

* Errors in transcription do not take away from the level of proficiency.

** Inappropriate responses (e.g., profanity or concerning language) should be sent to chair.

Elaborations

	Interpret	Apply	Solve	Analyze	Communicate
4	Advanced reasoning skills in determining the relevance of situational information in the task context.	Success in relating the context into mathematical language using a clear and logical approach.	Advanced use of mathematical concepts and skills; solution is reasonable and appropriate to context.	Reasoning or justification of solution is complete and comprehensive.	Advanced use of mathematical language (e.g., graphs, symbols) to express solution, supported by insightful or logical evidence.
3	Effective reasoning skills in determining the relevance of situational information in the task context.	Success in relating the context into mathematical language; errors in approach are minor and do not hinder understanding.	Effective use of mathematical concepts and skills; solution is appropriate to context but may contain minor errors.	Reasoning or justification of solution is evident.	Effective use of mathematical language (e.g., graphs, symbols) to express solution, supported by relevant evidence.
2	Basic reasoning skills in determining the relevance of situational information in the task context.	Partial success in relating the context into mathematical language but may contain errors in approach.	Basic use of mathematical concepts and skills; solution is missing essential calculations or contains major errors.	Reasoning or justification of solution is partially complete; or solution may not be reasonable in context.	Basic use of mathematical language (e.g., graphs, symbols) to express solution, supported by evidence that contains inconsistencies or is difficult to follow.
1	Limited reasoning skills in determining the relevance of situational information in the task context.	Limited success in relating the context into mathematical language; contains fundamental errors in approach.	Limited use of mathematical concepts and skills; solution contains mostly incorrect calculations.	Reasoning or justification of solution is absent or fundamentally incorrect.	Limited use of mathematical language (e.g., graphs, symbols) to express solution, supported by limited evidence.



Provincial Graduation Assessments

Students in the English Program

Grade 10

- ✓ Grade 10 Numeracy Assessment
- ✓ Grade 10 Literacy Assessment

Grade 12

- ✓ Grade 12 Literacy Assessment

Students in Programme francophone

Grade 10

- ✓ Évaluation de numératie de la 10^e année
- ✓ Évaluation de littératie de la 10^e année – Français langue première
- ✓ Grade 10 Literacy Assessment

Grade 12

- ✓ Évaluation de littératie de la 12^e année – Français langue première
- ✓ Grade 12 Literacy Assessment

Students in the French Immersion Program

Grade 10

- ✓ Grade 10 Numeracy Assessment
- ✓ Grade 10 Literacy Assessment

Grade 12

- ✓ Grade 12 Literacy Assessment
- ✓ Évaluation de littératie de la 12^e année – Français langue seconde-immersion

Note: Students who begin the B.C. Graduation Program in Grades 11 or 12 are not required to write the Grade 10 Literacy Assessment to graduate. Francophone students transferring from another jurisdiction are also not required to write the Évaluation de littératie de la 10^e année – Français langue première to graduate. See the [B.C. Graduation Program Policy Guide](#) for more details.

C.M. Finch Elementary School: Framework for Enhancing Learning 2023-2024
Respect + Responsibility = Happiness

Mission Statement

Our respectful, responsible CM Finch learning community works together to promote each individual's development and lifelong learning in a safe, supportive and caring environment.

Context

CM Finch is a vibrant and caring place. There is a strong sense of community among the families and staff at our school. We strive to maintain a positive school climate. We promote the involvement of our community, strong leadership across our school and mentoring between staff and students.

The school wide expectations for social responsibility and monthly school wide focus words are the basis of assembly teaching and school wide instruction. These virtues are building blocks for our strong sense of community. Many parents of the C.M. Finch learning community have high expectations for the education of their children. Parents volunteer in classrooms, support special activities, events and are also active on our Parent Advisory Council (PAC). Our PAC provides a voice for parents, they operate the school hot lunch program, and organize family activities. PAC provides funds for all the classrooms to support special activities, projects, and field trips.

Intellectual Goals

Numeracy

Proficient numeracy skills are essential for students to meet their career goals and manage personal finances.

Reading and Writing: (Language Arts)

Literacy skills are essential for students to meet their career goals and be lifelong learners.

Communication Core competency (Ministry of Education)

Communication Core Competency encompasses the set of abilities that students use to impart and exchange information; share experiences and ideas to explore the world around them and to understand how effectively engage in the use of digital media. Communication competency provides a bridge between students' learning, their personal and social identity, positive relationships, and the world in which they interact.

Cultural Awareness

Students who learn about different cultures during their education learn to be more inclusive. This allows them to interact in a wider range of social groups and be more understanding of people's differences.

Numeracy

To have students develop strong numeracy skills.

1. Target - to have 80% of our students be proficient or better on the final report card.
2. To have students develop their basic math skills and problem-solving skills in mathematics. As outlined in our Fund to Enhance Student Learning. (We have noted improvement as this was our FESL Focus goal for teaching and learning the past two years).

Evidence/Performance indicators

Report card results

FSA results

MAP assessment

Strategies/Structures

- Introduce and Learn to use the Mathology program.
- Introduce and use The Stenhouse fact fluency resources
- provide Matheletics to our CWT classrooms
- Communicate ways that parents can support numeracy at home through class news.
- Develop Strategies to promote basic math skill development
- Develop strategies to enhance student's abilities to solve math problems.

Language Arts

Language Arts Objectives

To have all students display strong literacy skills, including reading fluency and comprehension, as well as effective writing skills.

FESL 2022 2023 Focus

The main school wide focus for our FESL this year is continuing to work at improving student writing. Our school data has shown us that our writing skills are an area that require more attention and we would like to see improvement in.

Targets

- A) To have all primary and intermediate students be proficient on the School District's Reading Assessment at their appropriate grade level.
- B) Intermediate students: To have 80% of students score proficient on their year-end report card in Language Arts

C) Primary students: To have all Students be proficient in ELA on their final Report Card.

D) To have kindergarten students to show strong phonemic awareness.

Target-to have 80% of students in quartile 3 and 4 on phonological assessment.

E) To have intermediate and primary students develop strong writing skills.

Target - to have 80% be proficient in writing.

Target - to have the school's percentage of grade four students perform at meeting or exceeding at or above the same level as the district or province on FSA in writing.

F) To have students with literacy related IEP goals meet them.

G) To have students who are on Annual Instruction Plan to meet their goals.

Evidence/Performance Indicators

Phonological Assessment

PM Results

QCA results

Read 73 Results

Cold Write Results

Report Card Marks

Strategies/Structure

FESL Focus Strategies:

- a) School wide writing activities- Smoking Pencils, 20 minute writing daily, Pen Pals, Authentic Writing, Writer's Café, Journaling, Free Writing with a Prompt, Weekly Writing Prompt on SeeSaw, Set Weekly Writing Time.
- Continue to increase and promote Indigenous titles in book room collection to support this aspect of the curriculum.
- Continue to purchase books that represent the multicultural backgrounds of our school community.
- School wide peer reading program organized by learning assistant continues. (The Peer Reading program builds connections between students. There is a keen interest in the intermediate students in being a peer reader).
- Guided Reading
- Reading Recovery- Intervention
- Words Their Way
- Heggerty
- Adrienne Gear

Resources

-Talking Tables-Kindergarten - Language skill development - ESL component.

-100 Easy Lessons.

- Great Leaps.
- Reading Recovery.
- Words Their Way.
- Smart Learning.
- District Coaching time is being accessed by some staff.
- Staff also support each other's learning on their own time.
- Communicate ways that parents can support literacy at home through newsletters.
- Our Ready Set Learn and Welcome to Kindergarten events help to build connections with families before students start kindergarten.
- Librarian supports and encourages reading through school wide programs and book fairs.
- Six Traits of Writing bins support instruction in each trait area. Crate Traits can be used for writing support at each grade level. The learning assistant gives teachers support related to use of the program.
- Primary students maintain personal spelling dictionaries as a writing aid. These dictionaries start with the students when they are in grade one and remain with the student.
- CWT Program, Using iPads/Technology to enhance student writing
- RAZ Kids.
- Smart Learning strategies also support the writing.
- Communicate ways that parents can support writing in newsletters.
- Heggerty
- Story Workshop
- Adrienne Gear

Social Emotional Learning

Goal: To maintain an inclusive learning environment where the school community displays a sense of belonging and social responsibility.

In order for people to perform at their optimum level they need to feel safe. Safety and a sense of belonging are basic needs that must be met in order to move to the higher stages of reasoning and learning. The goal is directly linked to our mission statement.

Definition of Social Responsibility Core Competency (BC Ministry of Education):

Social responsibility involves the ability and disposition to consider the interdependence of people with the natural environment; to contribute positively to one's family, community society and the environment; to resolve problems peacefully; to empathize with others and appreciate their perspectives; and to create and maintain healthy relationships.

Social Emotional Learning:

1. To have students, staff and parents feel that school is safe.
Target – to have 100% of each group feel this way.
2. To have students feel connected to school.
Target – to have at least 80% of intermediate students participate in an extracurricular and leadership activity.

3. To have students demonstrate personal and social responsibility.
4. To Provide opportunities for student Choice and Voice- Peer Helpers, Leadership Club, Peer Readers, Canteen Helpers, SOGI Club, Lunch Monitors, Office Helpers.

Evidence/Performance Indicators

School survey

Ministry Satisfaction Survey

Discipline Data (Assess)

Participation Records

Strategies/Structures

R+R=H

Respect + Responsibility = Happiness are the guidewords that the Code of Conduct is structured around. Work on this code will be done throughout the year. Components of PBIS will be used in work around the Code of Conduct. The Code of Conduct will meet the standards set out in the Safe Orderly and Caring Schools document.

- To deal with issues that arise, teach positive behaviours, and build consistent staff language and approaches to deal with behaviour. Review concept of rising expectations at assembly and through newsletters.
- Virtues have been linked to monthly focus words within the agenda. The work habits and virtues, guide the Bucket fillers that are given out at the assemblies to recognize positive choices made by students.
- We have implemented school wide activities such as Inter-murals and Spirit Assemblies.
- Continue to have school wide projects that promote social awareness within our community and at a national and international level. (Jump Rope for Heart, Terry Fox Run, Truth and Reconciliation Day, SPCA, Christmas Hamper).
- Focus on the development of self-regulation through use of Mind Up, Zone In, Zones of Regulation, EASE.
- Build school connectedness with participation in buddy activities, joint projects and school wide activities.
- During first week of school build common understanding of school social responsibility expectations.

- Assembly Times are also used for social responsibility teaching and promote a growth Mindset towards learning and improving.
- ISSW support our aboriginal students.
- Possible Indigenous Day Rotations.
- PAC has worked to have the hot lunch program meet the healthy food guidelines. Healthy food choices are being promoted within the school.
- Continue to participate in Provincial Food and Vegetable Program and the School Milk Program.

Careers

Career Education is a process that recognizes three major phases of career development—Foundation and Awareness, Exploration, and Experience and Applications.

In the curriculum documents this is defined as; students will develop a sense of personal responsibility and believe in the ability of each individual to make a difference to their own well-being and the others. (BC Ministry of Education).

Personal Development involves using goal setting strategies, speaking responsibly, becoming a problem solver and decision maker, in order to acquire emergent leadership skills. These personal connections to each child's community will make the student and staff culturally and socially aware, so that all respect their roles and responsibility at home, at school and in the community. This will make us aware of community careers, and safety issues. To develop strong work habits and a positive attitude towards learning is essential for lifelong learners.

Objectives

1. Students will be able to identify areas of strength that they have.
Target – all students will participate in goal setting activities and work towards improvement.
2. Students will develop work habits that support them in meeting their learning goals.
3. Students that have behavioural or social emotional and self-regulation goals within their IEP's needs will be met in a variety of ways.

Evidence/ Performance Indicators

Ministry Satisfaction Survey

MDI (Middle Years Development Instrument)

Strategies/Structures

- Have students at our school engage in the following ASD projects and Events: Explorefest, Science Fair Projects, Passion Projects, Skills Canada Programs, NLC College Field Trip, School Speech Contest, Science in Schools, Maker Space Projects.
- In 2023-2024 we will continue to gather materials to support STEAM activities and Maker Projects. We have set up a Makers Space to support student participation in project-based learning where there is choice and reflection. Projects such as these help build students' personal understanding all of their own interests and strengths. These projects help to address the Applied Skills and Design curriculum, and promote critical thinking skills.
- Continue the use of Interim Report Cards developed by staff that focus on the effective traits for learning and has students do a self-assessment component that can be compared with teacher assessment. This comparison provides the basis for assessment for learning conversations at home and school.

Three Year Plan

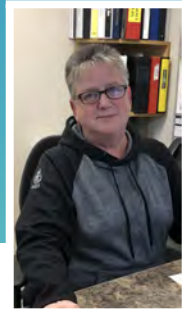
During the 2023-2024 school year we will refocus our school on developing our reading and comprehension skills. By collectively focusing our instruction, and by working collaboratively we are confident that we will achieve our goal of increasing the students' skills in reading.

Staff and students will continue to work towards the decolonization of our curriculum. We need to continue to add and promote resources particularly about our local Indigenous cultures; and connect with local Indigenous groups with support from the Indigenous Education Center. Staff will promote the understanding, awareness, inclusion, and representation of cultures that make up our school community. This will help promote an environment of understanding and inclusion at CM Finch.

We will target our resources to help address our main FESL Goal in Reading this year.

Operations Update

October 3, 2023



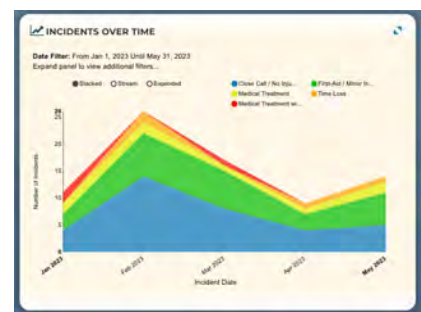
Facilities

- Upper Halfway Gymnasium
 - Opening has been delayed to the end of October 2023 due in part to wildfires and contractor delays
 - Playground equipment has arrived but the installation will not occur until Spring 2024 due to construction
- Wonowon School – Ministry has announced a partial replacement of the school
- Buick Creek School – a new lagoon and sidewalk replacement was completed over the summer
- Alwin Holland - sidewalk replacement
- Indigenous Ed/Technology building – cement pad poured at the back exit door of the building
- HVAC systems at Central and Robert Ogilvie schools are in the planning stages of retrofitting and controls are being worked on
- Heating is controlled centrally at Facilities for all School District #60 site in consultation with the Administrator of the school site
- Portable moved to Wonowon over the summer to serve grades 7-10; the portable was up and running by the second week of school
- Office renovation is taking place at the Board Office, Learning Services side
- Charlie Lake playground has been installed
- Central playground has been installed
- New windows have been installed at the Board Office

Safety & Custodial

Safety

- Switched to a new call center for alarms
- Prespatou – chemical lab has been removed
- The Superintendent is meeting with City of Fort St. John officials to be part of the Emergency Operations Center (EOC) when it becomes activated to ensure better communication with the school district in regards to wildfires
- Information and evaluation of the Joint Health Safety Committee has been sent out
- Ventilation information for schools has been updated
- Training is in process for the Joint Health & Safety system
- Level II First Aid course is being offered on October 20



Custodial

- During the summer, there was a new summer work schedule for custodians and they were off from July 21st to August 21st. There will be a follow up to see how it worked for all parties involved; ie.

facilities, technology and custodians as summer work has to be coordinated with all parties to ensure it is effective.

- A Head Custodian meeting took place on September 22 to address questions and concerns and to provide updates for the upcoming school year.

Technology

- Rick Phillips, IT Manager retired in June; Jayson Jopio has been promoted to the IT Manager position
- 249 Chromebooks and other computer replacements were ordered in June and arrived for the 2023/24 school year; the units replaced will be kept if they are in good condition as backup to mitigate interruptions
- Board Office server replacement is in the planning stages
- iPad deployment is happening during the month of September to all school locations
- Working on technology set up at the new Wonowon portable
- MS 0365 Microsoft Authenticator App is being rolled out in the next few weeks to improve security; an email with instruction was distributed last week

Transportation

- All bus routes are staffed by school district employees
- All routes are currently staffed and rural areas have backup drivers, but we continue to search for casual drivers
- The start of the year has been busy with trying to ensure routes are running smoothly and efficiently



*Upper Halfway
Gym Construction*



Wonowon portable computer lab