



PCAP 2016 – HOW IS GRADE 8 READING LITERACY ASSESSED IN PCAP?

This issue of *Assessment Matters!* constitutes a valuable source of information for teachers and subject-area specialists that may be used to guide the teaching of language arts. It provides an overview of the Pan-Canadian Assessment Program (PCAP) and presents 17 reading items from the PCAP Reading Assessment with commentary on student responses. It complements *PCAP 2016 – Report on the Pan-Canadian Assessment of Reading, Mathematics, and Science*,¹ which details the performance of Grade 8 (Secondary II in Quebec) students in the fourth administration of PCAP, in which the primary domain was reading.

What is PCAP?

PCAP is the continuation of the commitment made by the Council of Ministers of Education, Canada (CMEC) to inform Canadians about how well their education systems are meeting the needs of students and society. The information gained from this pan-Canadian assessment provides ministers of education with a basis for examining the curriculum and other aspects of their school systems.

School programs and curricula vary from province to province and from territory to territory across the country, so comparing results in these domains is a complex task. However, young Canadians in different provinces and territories learn many similar skills in reading, mathematics, and science. PCAP has been designed to determine whether students across Canada reach similar levels of performance in these core disciplines at about the same age, and to complement existing provincial/territorial assessments with comparative Canada-wide data on the achievement levels attained by Grade 8/Secondary II students.

Who writes PCAP?

PCAP 2016 was written by Grade 8/Secondary II students from all provinces in Canada. Approximately 27,000 students from a random sample of classes from close to 1,500 schools wrote the test in spring 2016. In reading, the results are available both for average scores and for performance levels for Canada overall, by province, by language, and by gender.

¹ O'Grady, Fung, Servage, & Khan, 2018

The PCAP assessment cycle

PCAP assessments are administered every three years to students who are in Grade 8/Secondary II. Each assessment cycle collects achievement data using a cognitive test with a major emphasis on one of the three learning domains—reading, mathematics, or science—and a minor emphasis on the two remaining domains. PCAP also collects a significant range of contextual information (e.g., on demographics, socioeconomic factors, and school teaching and learning conditions) to enhance interpretation of student performance, and this cycle’s contextual information is reported in *PCAP 2016: Contextual report on student achievement in reading*.² Each PCAP assessment includes questions on all three domains, although the focus shifts from cycle to cycle, as shown in Table 1. The repetition of the assessments at regular intervals yields timely data that can be compared across provinces and territories, and over time. For the fourth assessment, in 2016, the focus was on reading, as it had been in the first assessment, in 2007, with mathematics and science as the minor domains.

TABLE 1 PCAP assessment cycle

Domain	Cycle 1			Cycle 2		
	Spring 2007	Spring 2010	Spring 2013	Spring 2016	Spring 2019	Spring 2022
Major	Reading	Mathematics	Science	Reading	Mathematics	Science
Minor	Mathematics	Science	Reading	Mathematics	Science	Reading
Minor	Science	Reading	Mathematics	Science	Reading	Mathematics

What is the test like?

Each assessment unit was developed with a reading prompt that contains a passage or a scenario containing a collection of thematically related texts (including interviews, diagrams, graphs). Students answer a series of related items drawing from information from one or more texts. The passages chosen for assessment units are intended to captivate the interests of Canadian Grade 8/Secondary II students and, therefore, to increase their motivation to participate in writing the test. Developers of the assessment items ensured that the contexts were developmentally appropriate and not culturally or geographically dependent.

The PCAP 2016 Reading Assessment consisted of approximately 90 items and included approximately 70 percent selected-response and 30 percent constructed-response items.

French and English versions of the assessment were developed simultaneously and are considered to be equivalent. In addition, by ensuring adequate representative sampling of these groups, this assessment provides statistically valid information for provinces with a sufficiently large sample size for separate reporting for students in the majority- and minority-language systems.

The subdomains of reading

For PCAP assessment purposes, the domain of reading is divided into three subdomains:

- understanding texts (“reading the lines”)
- interpreting texts (“reading between the lines”)
- responding personally and critically to texts (“reading beyond the lines”)

For the first time in 2016, the PCAP assessment included the overarching domain of transliteracy. Briefly, transliteracy represents the ability to create a coherent mental representation from a body of loosely connected information

² O’Grady, Fung, Brochu, & Tao, 2019

gathered through various means (Scardamalia & Bereiter, 2014).³ In contrast to traditional books, the world of open information requires readers to bring a different set of skills and effort to their task in order to build coherent knowledge out of numerous types and pieces of information. This ability to build coherence is a new challenge to literacy education beyond anything faced in earlier times.

Reporting the results

Following the initial scoring process, raw scores are scaled to a mean of 500 and a standard deviation of 100 for Canada. This provides a relatively simple basis for comparing groups. On this type of scale, approximately two-thirds of the individual student scores will fall within plus or minus one standard deviation of the mean, or between 400 and 600.

Another way of looking at reading performance is to establish proficiency levels based on descriptions of what students can do at each level. For the PCAP Reading Assessment, three proficiency levels are defined. Level 2 is considered the acceptable or “baseline proficiency” for this grade level. Performance levels are then summarized as the percentage of students reaching each level. Tasks at the lower end of the scale (Level 1) are deemed easier and less complex than tasks at the higher end (Level 3), and this progression in task difficulty/complexity applies both to overall reading and to each subdomain in the assessment.

A team of experienced educators from across Canada including teachers, curriculum experts, and assessment specialists participated in setting the performance standards. During this process, all items within the range of scores that defined the three levels of performance were examined. Using these items, a description of the knowledge and skills that characterized achievement at each of the three performance levels was developed and is shown in tables 3 to 5 (see APPENDIX I).

How did the students do?

Table 1 gives reading achievement scores for the provinces. Students in British Columbia, Alberta, Ontario, Quebec, and Prince Edward Island achieved results that are statistically similar to the Canadian mean. Students in Saskatchewan, Manitoba, New Brunswick, Nova Scotia, and Newfoundland and Labrador achieved results below the Canadian mean score.

TABLE 2 Results in reading

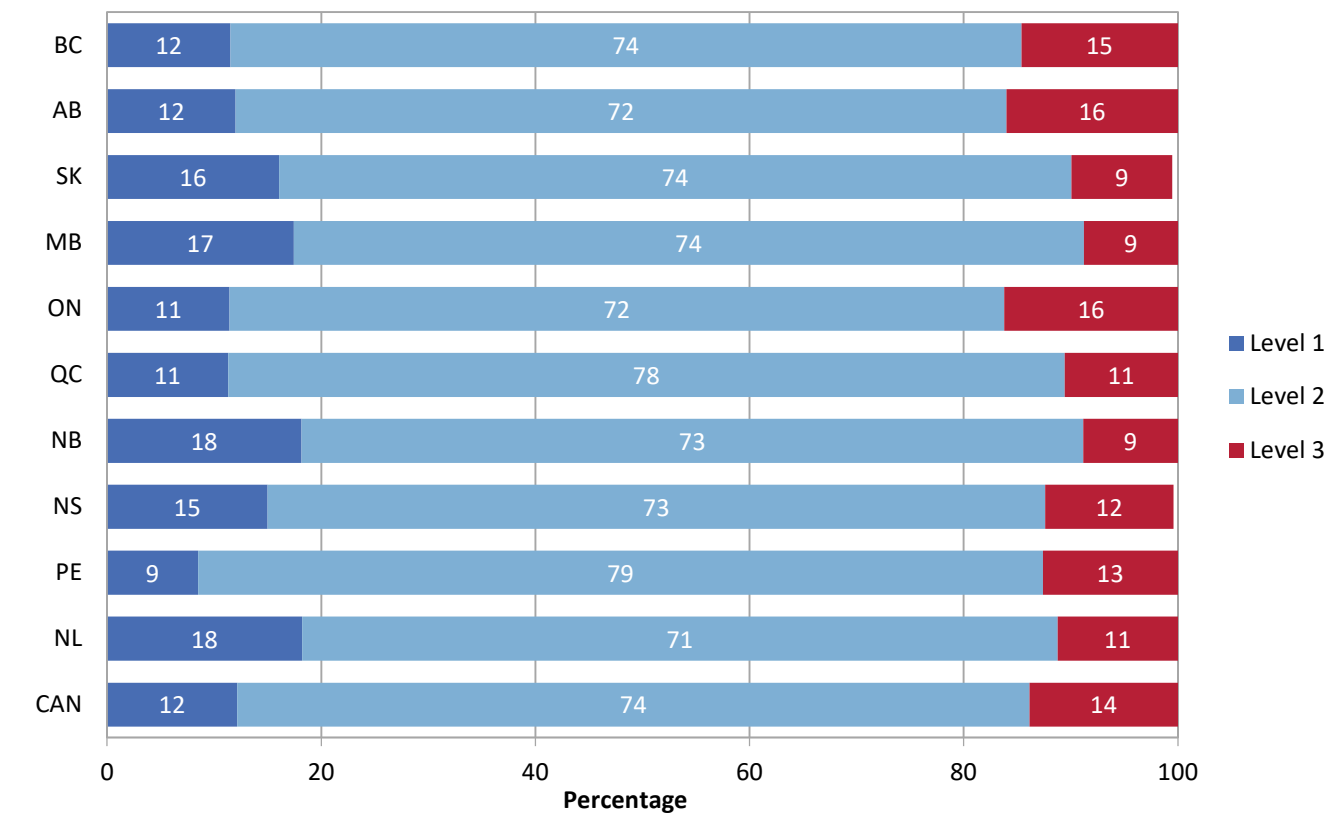
Province	Mean score	Confidence interval (±)	Difference (Province–Canada)
British Columbia	509	4.9	2
Alberta	510	3.3	3
Saskatchewan	491	3.0	-16*
Manitoba	487	4.3	-20*
Ontario	512	4.3	5
Quebec	503	4.0	-4
New Brunswick	489	3.5	-18*
Nova Scotia	498	3.7	-9*
Prince Edward Island	513	7.2	6
Newfoundland and Labrador	491	5.2	-16*
Canada	507	2.1	

* Denotes significant difference

³ For more information on transliteracy, see the *PCAP 2016 Assessment Framework*, CMEC (2016).

In PCAP 2016, 88 percent of Grade 8/Secondary II students in Canada performed at or above Level 2 in reading (Level 2 being the expected or baseline level of reading proficiency). Across provinces, the results range from 82 percent in New Brunswick and Newfoundland and Labrador to 91 percent in Prince Edward Island (Figure 1). Across Canada, 12 percent of students did not reach the baseline level in reading. Again, results varied among the provinces. The proportion of low achievers in reading in British Columbia, Alberta, Ontario, and Quebec was similar to that in Canada overall. Compared to the Canadian average, Prince Edward Island had a lower percentage of students at Level 1. All other provinces had a significantly higher percentage of students achieving only at Level 1. At the higher end of the PCAP scale, 14 percent of all Canadian students performed at Level 3. At the provincial level, the proportion of students achieving at the highest level was similar to the Canadian average in British Columbia, Alberta, Ontario, Nova Scotia, and Prince Edward Island.

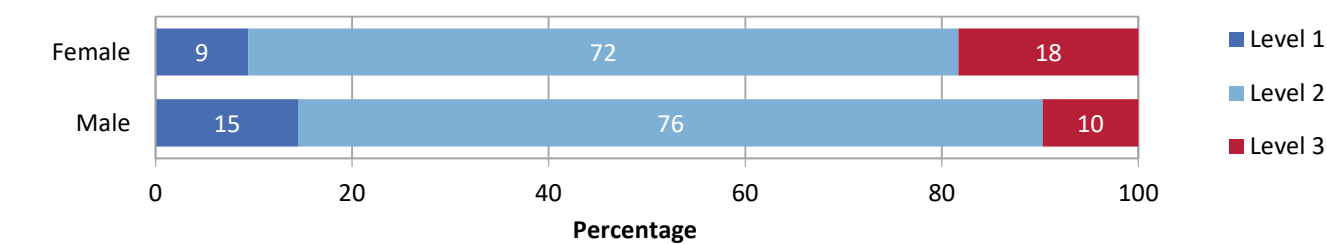
FIGURE 1 Canadian results by level of performance in reading



Note: Percentages may not add up to 100 due to rounding.

As was the case in PCAP 2007, girls performed significantly better than boys in the PCAP 2016 Reading Assessment. Eighty-five percent of boys attained Level 2 or higher, compared with over 90 percent of girls. Boys are more likely to perform at Level 1—that is, below expected levels of reading proficiency—and are less likely than girls to achieve Level 3.

FIGURE 2 Canadian results by level of performance in reading by gender



Canada, and indeed all countries and economies participating in the Programme for International Student Assessment (PISA), consistently report gender gaps for 15-year-old students in reading proficiency, with females outperforming males by approximately one school year of learning.⁴ The finding is consistent at the Grade 4 level, as reported in the Progress in International Reading Literacy Study (PIRLS) 2016,⁵ although gender equity in reading achievement was found for some countries. Weaker overall reading literacy by males is an enduring and widespread phenomenon noted in studies of reading.⁶

Commentary on student achievement on PCAP 2016 reading assessment items

Three assessment units that comprise 17 sample items are provided to place the PCAP performance levels descriptors in the context of the assessment. Samples were chosen to represent a range of subdomains and a variety of text and item types, as well as each of the performance levels. For constructed-response items, student responses are also included to show examples of responses that would earn full credit. There was no penalty for spelling or grammar mistakes, if such mistakes did not prevent the scorer from understanding what the student was trying to communicate. The following information is provided for each item:

- Classification by subdomain
- Correct answer or a sample student response that would obtain full credit
- Percentage of correct responses for Canada overall
- Commentary on student performance on the item

These items are no longer secured and will not be reused on future PCAP tests.

⁴ Organisation for Economic Co-operation and Development, 2016.

⁵ Brochu, O'Grady, Scerbina, & Tao, 2018.

⁶ Organisation for Economic Co-operation and Development, 2014.

In Nature's Way

The events in this article take place on one of the Galápagos Islands, which are in the Pacific Ocean off the coast of Ecuador, South America. These islands are a natural sanctuary for plant and animal life.



In your opinion, do animals need human protection in order to survive?

☐₁ Yes or ☐₂ No

Seven travellers and I, with our Ecuadorian naturalist guide, were making our way along the white sand beach of the southernmost island in the Galápagos chain. We were searching for the large nests in which the eggs of Pacific green sea turtles incubate and hatch.

- 5 Most of the hatchlings, which may grow up to 150 kilograms, emerge in April and May in a frenetic life-or-death scramble toward the sea, before aerial predators can reduce them to hors-d'oeuvres.

10 It was getting close to dusk. If the young turtles are to escape, one of the hatchlings must act as a scout and make a tentative foray into the open air to test whether it is safe for its dozens of siblings to follow.

I came to a large, bowl-shaped nest in which I saw the grey head of a tiny sea-turtle hatchling barely extending from the sand. As my companions joined me, we heard a sudden rustling in the brush behind us. A Hood mockingbird approached.

- 15 "Just be quiet and watch," our young Ecuadorian cautioned as the mockingbird moved close to the hatchling's head. "He's going to attack." Slowly, the mockingbird edged closer to the opening and began pecking at the hatchling's head to pull it out onto the beach.

20 Gasps echoed from the group. "Aren't you going to do something?" a voice demanded of our guide.

He simply held his fingers to his lips. "This is the way nature works," he said.

"I'm not going to sit here and watch this happen," a mild-mannered man from Los Angeles objected.

"Why don't you listen to him?" I pleaded. "We shouldn't interfere."

25 “If it weren’t for humans,” another of our shipmates protested, “they wouldn’t
be endangered to begin with.”

“I’ll do something about it if you won’t,” her husband warned our guide.

The cacophony of humans shooed the mockingbird from its scrumptious-looking
meal. Reluctantly, our guide pulled the hatchling out of the hole to help it on its
30 way seaward.

What happened next caught everyone by surprise. Rather than one “rescued”
hatchling scurrying to safety, dozens upon dozens of baby sea turtles — having
received a small signal that it was safe — poured out of the nest and began
paddling toward high tide.

35 The folly of our group’s interference became clear. Not only had the hatchlings
emerged under the mistaken impression that it was safe to do so, but their mad
rush was taking place too early. The still-clear light of dusk allowed no hiding
from eager scavengers and predators.

Within seconds the air was dense with delighted frigate birds, boobies, and
40 swallow-tailed gulls. A pair of Galápagos hawks landed wide-eyed on the beach,
and a growling flock of mockingbirds eagerly followed their desperately
paddling evening meal down the beach.

“Oh, God,” I heard a voice behind me, “look what we’ve done!”

By then the slaughter of dozens of hatchlings was well under way. Our young
45 guide, trying to compensate for having disobeyed his own better instincts,
grabbed a baseball cap and filled it with hatchlings. Wading into the ocean, he
released the baby turtles, then wildly waved his hat to frighten the armada of
frigate birds and boobies.

By the time it was over, the celebratory cries of dozens of well-fed predators
50 filled the air. Two hawks stood silently on the beach hoping to catch a final,
straggling morsel. All that could be heard was the sound of the tide beating
against the white sands of Gardner Bay.

Heads down, my companions walked slowly along the beach. There seemed to
me to be a perfect stillness among this all-too-human group.

55 Something, I think, very much like the sound of humility.

1. Now that you have read the article, what do you think the title “In Nature’s Way” means?

Subdomain: Interpreting texts (“reading between the lines”)

Skill level: 3

Possible score points: 0, 1, 2, 3

Percentage of responses: partial credit (scores 1, 2): 77%; full credit: 9%

Example 1

Man will never know all of nature’s secrets so whether acting in good faith or not, Man has a duty not to interfere with the process of life in our environment. The people in this story did that: they got “In Nature’s Way.”

Example 2

The reader demonstrates thoughtful and insightful interpretation of the text.

Humans shouldn’t get involved with the animals or “Mother Nature” because they can put the animals in bigger danger. It’s important, I think, to study up on these things before plunging into something as life or death as this.

Comment

Question 1 requires the student to demonstrate thoughtful and insightful interpretation of the title and its meaning to the text.

To gain full credit, the student is expected to analyze, link, and make inferences regarding the double meaning inherent in the title. Using information from the text, the student must support their inference(s) by explaining and linking both meanings, while noting the broader implications of the consequences incurred. The student develops a thoughtful and insightful perspective.

Students who did not receive full credit for this question tended to reference one meaning only, relying on explicit support, and/or relied on stated conclusions from the text.

2. Which quotation shows that at least one traveller agreed with the guide’s initial response to the mockingbird’s attack?

- A. “We shouldn’t interfere.” (line 24)
- B. “Aren’t you going to do something?” (line 19)
- C. “I’ll do something about it if you won’t,” (line 27)
- D. “I’m not going to sit here and watch this happen,” (line 22)

Correct response: A

Subdomain: Understanding texts (“reading the lines”)

Skill level: 1

Percentage of correct answers: 78%

Comment

Question 2 requires the student to search and select information (literal comprehension).

To gain credit for this question, the student must locate the section in the text, noting and acknowledging the guide’s initial response, and then must choose from the selection of possible responses the answer that corresponds with the guide’s response.

3. In this article, the eight travellers are...

- A. tourists.
- B. students.
- C. residents.
- D. scientists.

Correct response: A

Subdomain: Understanding texts ("reading the lines")

Skill level: 1

Percentage of correct answers: 78%

Comment

Question 3 requires the student to search and select information in order to make a slight inference.

Students must make an inference as to who the travellers are. Using the information provided in the text, the student needs to use general context cues (how does the author let the reader know?) in order to select the correct option.

4. By the end of the article, the people seem upset by what has just happened.

Are these feelings justified?

☐₁ Yes or ☐₂ No

Explain your answer.

Subdomain: Response to texts ("reading beyond the lines")

Skill level: 3

Possible score points: 0, 1, 2, 3

Percentage of responses: partial credit (scores 1, 2): 63%; full credit: 7%

Example

The people carry a heavy sense of shame and regret. These feelings are justified because there were the ones responsible.

Comment

In question 4, the reader must take a critical stance, evaluating whether or not, or to what extent, the feelings of the tourists are justified.

To gain credit for question 4, the student is required to give a significant critical response. The reader identifies a position, then provides a specific, clear explanation that moves beyond a logical explanation. The critical response is based on social, cultural, or literary factors.

To receive full credit, students must provide a clearly articulated evaluation that goes beyond a logical rationale, exploring social and cultural values. The reader speaks to personal and professional responsibility and/or the obligation of preserving life, human reactions, and their consequences.

A student who does not receive full credit can identify a position, but either provides a simple, logical rationale or one that is quite vague.

A number of students struggled with understanding the word *justified*. This, in turn, saw students losing full credit in this question.

The Painting

Mr. Cormier was fabulously rich, obese, and very old. Of course, he smoked cigars too, but that is of no importance for the rest of our story.

He owned some very expensive paintings, famous works that even major museums would like to have been able to display. He never showed them to anyone and kept
5 them in his private museum on the top three floors of the building in which he lived.

Of all the pictures in his collection, the most celebrated was Tarto Sicabio's famous *Black Horseman*. According to the experts, it was the painter's masterpiece — a painting surrounded by mystery and fear because everyone who had ever owned it had died a
10 violent death. This apparent curse on the painting had, curiously, made it the most expensive painting in the world. Old Cormier had, according to the rumours, paid an exorbitant price for it.

That is no doubt why *Black Horseman* was protected more closely than a head of state. It was hung in a locked reinforced room to which only Mr. Cormier knew the access code. There were no other pictures in the room, apart from a picture posted on the opposite
15 wall, drawn by a child in tentative colours that made it difficult to say what the subject was: a monkey, perhaps, enormous and laughing, with a cigar in the corner of its mouth, tossing some playing cards behind him (or were they bank notes?). Cormier himself had hung this picture, drawn by one of his grandsons when he was barely five years old. It was a way for him to make fun of Sicabio and his *Black Horseman*. For even
20 though he had spent a fortune acquiring it, the old man did not really like it: he had bought it as a challenge, to prove that he was the most powerful man in the world, and that he did not fear the curse on the painting.

One evening, a few days before his 86th birthday, he entered the room in which *Black Horseman* was kept. He hardly ever did so, perhaps once or twice a year, but no more
25 than that. On that day, strangely, he had thought several times about the painting. And there was more to it than that. He had become obsessed and, drawn by an irresistible force, he went into the room to look at it.

30 He sat down on a stool in front of the painting. The canvas was average in size and violently coloured in red, purple, and a harsh green. Why had Sicabio called it *Black Horseman*? It was possible to see in the mixture of colours that there was a human shape, but nothing like a horse. So why *Horseman*? And why *Black*? This, not for the first time, was precisely what old Cormier was wondering about as he sat hunched over on his stool, intrigued in spite of himself by the brutality of the painting, and by the violence of the shapes and colours.

35 Suddenly, he had the impression that the picture was moving. Not the painting itself or the frame, but the colours and the shapes, as if they were coming to life. He stiffened and waited. The impression went away almost immediately and the picture became immobile once again as the old man began to have some doubts about his own perceptions.

40 He looked at the *Black Horseman* for a long while again. But it appeared to be gradually losing its power and its violence. It did not look so threatening, really; on the contrary, it was almost peaceful once it had been mastered.

45 Cormier, however, was not comfortable. He felt a presence, a threat in the room. And yet he was alone, and he had vanquished *Black Horseman*; he was sure of it now. He got off his stool and, slowly, looked all around the room. There was nothing on the walls, as usual, except for the grimacing monkey scribbled by a child's hand.

The old man sat down again. In spite of it all, he was not reassured. He thought about leaving, but something held him back.

50 Three hours later, when the security system automatically triggered the doors to open, Cormier was found stretched out on the floor, dead, in front of *Black Horseman*, with a bundle of bank notes in his mouth. On the opposite wall, the child's picture had disappeared. But nobody noticed that, and the evil reputation of Sicabio's painting continues to grow. So does its value.

5. In which of these excerpts does the narrator speak directly to the reader?

- A. "...but that is of no importance for the rest of our story." (line 2)
- B. "... a few days before his 86th birthday ..." (line 23)
- C. "Suddenly, he had the impression that the picture was moving." (line 35)
- D. "In spite of it all, he was not reassured." (line 47)

Correct response: A

Subdomain: Understanding texts ("reading the lines")

Skill level: 1

Percentage of correct answers: 77%

Comment

Question 5 requires the student to search and select information (literal comprehension).

This question focuses on the author's style of introduction and how they introduce the main character to the reader. The reader must be able to note the *aside* and understand that the author has added that piece of information just for the reader (speaking directly), as if whispering in the reader's ear.

6. Why is Mr. Cormier obsessed by the painting on that particular day?

- A. It is his birthday.
- B. The curse is working on him.
- C. It is his usual day for visiting the room.
- D. The picture in the painting is behaving strangely.

Correct response: B

Subdomain: Response to texts ("reading beyond the lines")

Skill level: 2

Percentage of correct answers: 52%

Comment

Question 6 requires the student to draw upon personal experiences while searching and selecting information to guide their choice in selecting the correct option.

The student is required to focus on the idea that the painting is actually cursed and responsible for particular behaviours exhibited by the owner, especially on the particular day in question. The reader must consider the information regarding all previous owners and pair that with the fact that Mr. Cormier has locked the painting in a room in which time has passed since he brought it into his home. His strange, obsessive behaviour alerts the reader to believe the curse's effects are catching up with Mr. Cormier, bringing him to be in the room on this particular day.

7. Mr. Cormier bought the *Black Horseman* because he is

- A. a loner.
- B. arrogant.
- C. antisocial.
- D. superstitious.

Correct response: B

Subdomain: Understanding texts ("reading the lines")

Skill level: 2

Percentage of correct answers: 50%

Comment

Question 7 calls for the student to make an inference about the main character based on using and perceiving sources of information in the text.

This question requires the student to understand Mr. Cormier's personality based on the information in the text. Once the reader has acquired this context, the student must understand the meaning of each word in the selection to complete this slight inference (understanding within the context of the sentence(s)/phrase(s)).

8. Why does Mr. Cormier place his grandson's picture opposite Sicabio's painting?

- A. To prove that he is brave
- B. To put the child's talent on display
- C. To ridicule the painter and his work
- D. To embellish the room in which the painting is on display

Correct response: C

Subdomain: Understanding texts ("reading the lines")

Skill level: 1

Percentage of correct answers: 57%

Comment

Question 8 requires the student to search and select information (literal comprehension).

Skill Level 1 requires the student to draw information directly from the text. The student must refer to/locate the section of text where the author describes the room in which the painting and the child's artwork are displayed. The author states that Mr. Cormier places his grandson's picture opposite Sicabio's to make fun of the artist and his painting. The student must then understand that the word *ridicule* means to make fun of something or someone.

9. Why does Mr. Cormier feel threatened in the reinforced room? Explain your answer.

Subdomain: Response to texts ("reading beyond the lines")

Skill level: 3

Possible score points: 0, 1, 2

Percentage of responses: partial credit (score 1): 45%; **full credit:** 12%

Example

He felt threatened because he felt that there was a presence in the room. He thought he was no longer scared of the painting but the curse was working on him so he felt the presence of the painting going to kill him.

Comment

To achieve a score level 2 (full credit), the student must express personal implications and insights and support their thoughts from the text or from prior experience and/or give thoughtful explanations.

The student must provide an example or situation from the text that highlights the threat ("a presence in the room"—even though Mr. Cormier thought he wasn't scared anymore) and in the explanation must explain why this is considered a threat (the presence made him feel like it, i.e., the painting/curse, would kill him).

Students receiving partial credit (score level: 1) provided an example or situation that identified a threat, but did not offer an explanation.

10. Give two examples showing how the author makes the death of Mr. Cormier appear suspicious.

Subdomain: Understanding texts (“reading the lines”)

Skill level: 1

Possible score points: 0, 1

Percentage of responses: full credit: 36%

Example

The first example would be when they found his dead body stretched out in front of the Horseman painting with bank notes in his mouth. The second example would be how the child’s picture on the opposite wall has disappeared.

Comment

Question 10 requires the student to provide two examples from the text (literal) that proves the death is suspicious. Although this question requires examples directly from the text (skill level 1), the student must understand the meaning of the word suspicious and then make the connection to what is going on in the last scene of the text.

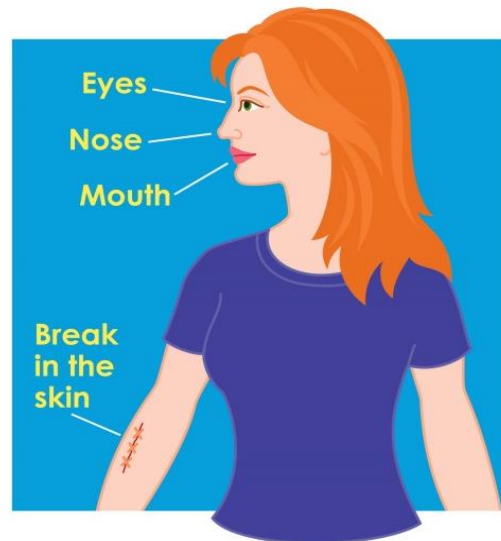
K12 Virus

K12 is a virus. Once this virus is inside a human it causes damage to red blood cells, resulting in serious illness and maybe even death. The initial symptoms of someone infected with K12 are fatigue, headaches, and muscle pain. These initial symptoms are then quickly followed by vomiting, diarrhea, rashes, and internal bleeding. The disease is contagious and can be spread to others. The only known outbreaks in the world have occurred on Serf Island and Iris Island, which are located 30 kilometres from each other.

Serf and Iris Islands



Entry Points on the Body for the K12 Virus



The Reproduction Number (R_0)

The reproduction number (R_0) is a value that is used to indicate how contagious a disease is. Diseases that have a R_0 value < 3 are not very contagious, whereas diseases with a R_0 value > 10 are highly contagious. Diseases where the virus can travel far distances from the source and remain in the air for a long time have R_0 values > 10 . By contrast, diseases that can be spread only through direct contact with the source have R_0 values < 3 . The R_0 value of a disease can be further reduced if there is a vaccine available, or if the contagious period is short.

sam://www.bugsarebad.gg

"K12 is a highly contagious disease, and the public should be concerned because the total number of confirmed cases around the world has continued to increase, and the disease has now spread to countries around the world spanning a large geographic region."

IRIS ISLAND GAZETTE

December 1, 2010

Town C on Iris Island is going to test the experimental vaccine called Anti-K12. This vaccine will be administered to all residents with the exception of those who have weak immune systems or who currently are infected by the virus K12.

Vaccinations will begin on January 1, 2011.

A recorded interview with Dr. Martin Long, an expert on K12

Once an individual is infected by the virus, how long is it before that individual develops any symptoms?

Dr. Long: *Symptoms develop within one to seven days. Individuals who are infected with the virus cannot spread it to others until they are showing the initial symptoms.*

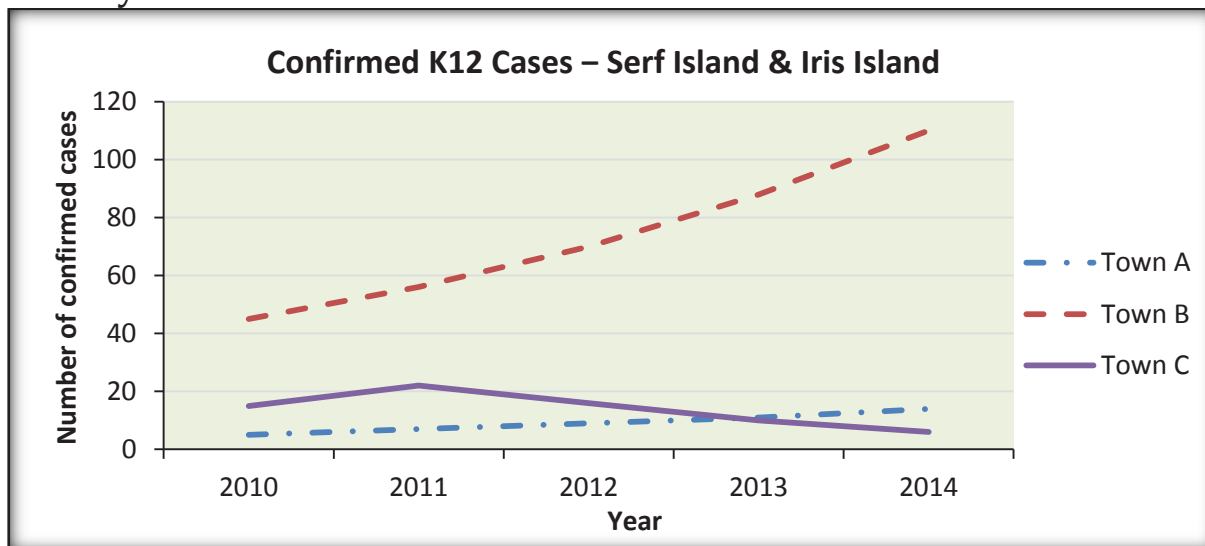
How is the virus spread between people?

Dr. Long: *The virus gets trapped in tiny droplets of blood, saliva, mucous, or tears of an infected individual. If a person comes in direct contact with these droplets of body fluids, they are at risk of being infected. These droplets cannot remain in the air for long because they can only travel a very short distance from their source before dropping to the ground. If any of these body fluids come in direct contact with a surface, the surface can be cleaned with hot water and soap which will kill the virus.*

Is there a cure or a preventative treatment for K12?

Dr. Long: *The vaccine Anti-K12, when administered to people who are not infected by the virus, builds up antibodies in that person that help them fight off being infected by the virus if the person is exposed to it. This vaccine does not cure the disease and therefore it does not help people who are already infected by the virus.*

History of Confirmed Cases



Source: Serf Island Hospital

11. In the table below a brief scenario involving Amy, Tara, and Ravi who live on Serf and Iris Island is given.

Select **High Risk** or **Low to No Risk** to indicate the level of risk each person has of getting K12 based on the description provided.

Description of Individual	High Risk	Low to No Risk
Amy lives in town A. She had lunch with a friend at a local restaurant in town. They both ordered their own drink and shared a plate of chips and dip. At the time they had lunch Amy's friend was infected with K12 but she showed no symptoms.	<input type="radio"/> ₁	<input type="radio"/> ₂
Tara lives in town C and has received the Anti-K12 vaccine. Yesterday morning Tara was on the same bus as a woman with a wound — the woman was also suffering from fatigue. The woman from the bus was confirmed to be infected with K12 later that day.	<input type="radio"/> ₁	<input type="radio"/> ₂
Ravi travelled by ferry from Iris Island to Serf Island. While on the ferry, a man next to him tripped and cut his knee. Ravi helped the man by stopping the bleeding and applying a bandage. The man Ravi helped was infected with K12 and showed signs of fatigue and muscle pain.	<input type="radio"/> ₁	<input type="radio"/> ₂

Correct response: Low to no risk, low to no risk, high risk

Subdomain: Response to texts ("reading beyond the lines")

Skill level: 3

Percentage of correct answers: 60%, 74%, 86%

Comment

In order for a student to receive full credit for this question, the student must gather, combine, and manage information from the different resources within the text and, along with knowing each character's situation, must determine (evaluate) if each case presented, creates a low-stakes or high-stakes likelihood of infection.

The demand for the reader to search, summarize, synthesize, and then evaluate takes this question to a skill level 3.

Students receiving partial scores for this question had a tendency to struggle with connecting important aspects of the text and/or relied on simple inferences.

12. Based on your answer in question 11, justify your choice for Ravi's risk of infection for K12.

Subdomain: Response to texts ("reading beyond the lines")

Skill level: 3

Possible score points: 0, 1, 2

Percentage of responses: partial credit: 34%; full credit: 36%

Example

I think Ravi has high risk because he touched the blood of a person who was infected with K12 and showed signs of fatigue and muscle pain. He has high risk because he came in direct contact with the blood. The man showed symptoms so that meant that it could be spread.

Comment

To receive full credit for question 12, the student must have deemed Ravi at high risk. In doing so, the student is selecting and synthesizing information from the resources in the text and the text itself to determine and confirm the high-risk qualities that match Ravi's actions on the day he helped the passenger.

Conclusions take an evaluative stance, which places this question at skill level 3. Students receiving partial credit identified Ravi as high risk and supported their choice with appropriate details from the text, but these details/supports were limited.

13. Study the trend that has occurred in Town C in terms of the number of confirmed cases of K12.

Between 2011 and 2014, the number of cases of K12 in Town C has

- ☐ ₁ increased. ☐ ₂ decreased. ☐ ₃ remained the same.

Using at least two sources of information given, explain why this trend is occurring in Town C between 2011 and 2014. Identify the sources that you used.

Subdomain: Response to texts (“reading beyond the lines”)

Skill level: 2

Possible score points: 0, 1, 2

Percentage of responses: partial credit: 30%; **full credit:** 15%

Example

December 1, 2010, in the Iris Island Gazette, it said that Town C will be getting the vaccine called Anti-k12 which prevents people from getting it. In the graph (History Confirmed Cases), it shows in 2011 (when they received the vaccine) the amount of people who would get k12 reduced.

Comment

Question 13 requires the student to locate and analyze the graph that shows the history of K12 virus cases in each town (over time). The graph shows that Town C had a peak of infections around 2011 before showing a steady decline.

Along with the information from the graph, the student must evaluate the information and find reasons/evidence to support their thoughts (about the decline) from two sources within the text and then cite the sources.

This question requires the student to make a slight inference and combine this with evidence. This situates this question at skill level 2.

Students receiving partial credit for this question either offered valid reasons for their choice but did not cite sources or the student offered valid reasons with only one resource cited.

14. A college located in town B wants to implement procedures that will reduce the spread of K12. A list of the suggested procedures is shown below.

I	Turn off air conditioners and fans so that air is not circulated between classrooms within the same building.
II	Vaccinate individuals at the college who are infected with K12 with the vaccine anti-K12.
III	Require all individuals showing symptoms of K12 to wear a mask over their nose and mouth.
IV	Wash all eating utensils and glasses used in the cafeterias with hot water and a disinfectant.

Which of the procedures will help reduce the spread of K12 at the college?

- A. II and III only
- B. III and IV only
- C. I, III, and IV
- D. II, III, and IV

Correct response: B

Subdomain: Response to texts (“reading beyond the lines”)

Skill level: 2

Percentage of correct answers: 22%

Comment

Question 14 requires the student to combine the information from all sources provided in the text in order to identify the actions that reduce the spread of K12. The student must then make a slight inference as to which combination is the “best” defense.

This question requires the student to locate, review, and infer before making a slight judgement. This places the question at a skill level 2.

15. Compare the rate at which K12 is spreading in Town A to the rate at which it is spreading in Town B.

From the information you have been given, what is the most likely reason for the rate at which K12 is spreading to be different in Town A than in Town B?

- A. There is no hospital in Town A to treat people infected with K12, so the rate at which K12 is spreading is faster in Town A than in Town B.
- B. Town A is a small semi-isolated town that has no large public places like an airport; therefore, a person infected with K12 comes in contact with fewer people than in Town B.
- C. Town A is a small town located on an island and the only way for K12 to spread is if infected people travel to the island by ferry.
- D. Most of the people in Town A have been vaccinated with anti-K12, which reduces the number of people to whom the K12 virus can spread.

Correct response: B

Subdomain: Interpreting texts (“reading between the lines”)

Skill level: 3

Percentage of correct answers: 47%

Comment

For question 15, the student must interpret relationships among ideas or make comparisons to draw conclusions as to which scenario presented is the “most” likely reason for a difference in the rate at which K12 is spreading.

This question requires the student to analyze and synthesize a combination of elements, then support their interpretation by drawing on the relationships among elements. This positions this question at a skill level 3.

16. Estimate the R_0 value for K12.

Subdomain: Interpreting texts (“reading between the lines”)

Skill level: 2

Possible score points: 0, 1

Percentage of responses: full credit: 16%

*Example
 R_0 value <3*

Comment

In question 16, students must locate the section of text that discusses and explains how the reproduction number is calculated. The student must then combine this information with evidence to support a judgement/evaluation about the level of contagiousness.

With some competing thoughts about the level of contagiousness (blog), the student must recognize and make a judgement regarding the legitimacy of each piece of information in the text.

This question requires the student to draw conclusions by understanding inferences which places this question at a skill level 2.

Use the following additional information to answer the next question.

Jerome is a photographer who has recently returned home from being on Serf Island. He lives in a small rural town with fewer than 1000 people in a country more than 1000 kilometres away from Serf Island. Jerome is tired, but shows no other signs of K12. Many people who live in this small town are afraid they are at risk of getting K12 because Jerome travelled to Serf Island.

17. Describe two steps that can be taken in this town to reduce the risk of anyone in the town getting K12.

Subdomain: Interpreting texts (“reading between the lines”)

Skill level: 3

Possible score points: 0, 1, 2

Percentage of responses: partial credit: 32%; full credit: 45%

Example 1

People take the anti k12 vaccine so they will not get infected.

Example 2

Keep Jerome in isolation for about a week to see if he shows any more symptoms of K12.

Comment

Question 17 calls for the student to combine the information in the text that describes effective, preventive measures for K12 with the situation presented regarding Jerome returning to his hometown.

Using context clues, the student must analyze and synthesize a combination of elements (skill level 3) and choose two measures that will ensure success.

Students receiving partial credit provided one step instead of two or provided a correct preventive step along with an incorrect step.

Conclusion

The results of the PCAP 2016 assessment conclude that most Canadian Grade 8/Secondary II students are achieving levels of performance in reading that are at the expected level or higher. Certain nuances are nevertheless to be noted. A persistent gender gap favouring girls continues to be apparent in the pan-Canadian reading assessment, which is consistent with findings in international studies. As well, there are still numerous students who perform at Level 1, for whom reading presents a significant challenge.

Overall, the PCAP testing reaffirms that CMEC’s large-scale assessment projects offer innovative and contemporary direction on education policy, curriculum, and classroom practices in Canada.

PCAP Support Documents

The CMEC website contains several documents that provide valuable information about various aspects of the national assessment. To access these documents, go to <https://www.cmec.ca/en/>. From the home page, follow this path: *Programs & Initiatives > Learning Assessment Programs > Pan-Canadian Assessment Program (PCAP)*, and then click on one or more of the specific document links.

TABLE 3 Knowledge and skills characteristic of achievement at performance Level 3

Level 3 – Scores of 603 and above
Subdomain: <i>Understanding texts (“reading the lines”)</i>
Students at this level demonstrate: <ul style="list-style-type: none"> • a thorough understanding of a variety of texts; • an understanding of directly stated information as well as implied information that arises from subtle aspects of the text such as tone; • knowledge of and insight into how writers structure texts and use other elements of style.
Subdomain: <i>Interpreting texts (“reading between the lines”)</i>
Students at this level are able to: <ul style="list-style-type: none"> • analyze and synthesize a combination of elements in order to provide an insightful perspective on the meaning of the text; • support their interpretation by drawing on subtle relationships among elements and ideas.
Subdomain: <i>Responding personally to texts (“reading beyond the lines”)</i>
Students at this level are able to: <ul style="list-style-type: none"> • provide extended personal responses that reflect an evaluation of the text and often include references to its social and cultural implications; • use their background knowledge to reflect on and make insightful connections between the text and their own experience, providing specific details, examples, and explanations; • elaborate on a viewpoint with evidence from the text to support personal opinions about issues.
Subdomain: <i>Responding critically to texts (“reading beyond the lines”)</i>
Students at this level are able to: <ul style="list-style-type: none"> • provide extended critical responses that reflect an evaluation of the text and often include references to its social and cultural implications; • provide a thoughtful response to the text, often taking an evaluative stance about the quality or value of the text; • support their responses by providing specific, appropriate details from the text, and from other sources.

TABLE 4 Knowledge and skills characteristic of achievement at performance Level 2

Level 2 – Scores between 400 and 602
Subdomain: <i>Understanding texts (“reading the lines”)</i>
Students at this level demonstrate: <ul style="list-style-type: none">• a clear understanding of a variety of texts;• an understanding of directly stated information as well as implied information that relies on context;• knowledge of how texts are structured and organized.
Subdomain: <i>Interpreting texts (“reading between the lines”)</i>
Students at this level are able to: <ul style="list-style-type: none">• connect general statements and supporting details in order to provide a broad perspective on the meaning of the text;• draw conclusions by understanding inferences and figurative language.
Subdomain: <i>Responding personally to texts (“reading beyond the lines”)</i>
Students at this level are able to: <ul style="list-style-type: none">• provide reasonable personal responses that are supported with references to the text and other sources;• use their background knowledge to make personal connections between the text and their own experiences, providing reasonable explanations and supporting arguments;• state a viewpoint, using evidence from the text or personal experiences to support their position.
Subdomain: <i>Responding critically to texts (“reading beyond the lines”)</i>
Students at this level are able to: <ul style="list-style-type: none">• provide reasonable critical responses that are supported with references to the text and other sources;• provide a reasonable response supported by appropriate statements using evidence from the text;• use details from the text and other sources to support their response.

TABLE 5 Knowledge and skills characteristic of achievement at performance Level 1

Level 1 – Scores of 399 and less
Subdomain: <i>Understanding texts (“reading the lines”)</i>
Students at this level demonstrate: <ul style="list-style-type: none">• limited understanding of texts;• an understanding of directly stated information that relies on known vocabulary, concrete details, and explicit statements;• limited understanding of the parts and features of, and events described in, the text.
Subdomain: <i>Interpreting texts (“reading between the lines”)</i>
Students at this level are able to: <ul style="list-style-type: none">• provide a limited perspective on, and convey a limited sense of the meaning of, the text;• identify directly stated conclusions, making connections to some aspects of the text.
Subdomain: <i>Responding personally to texts (“reading beyond the lines”)</i>
Students at this level are able to: <ul style="list-style-type: none">• provide personal responses in a vague or general manner;• use their background knowledge to make some personal connections between the text and their own experiences, providing limited explanations and supporting arguments;• state a viewpoint, using limited evidence from the text or personal experiences to support their position.
Subdomain: <i>Responding critically to texts (“reading beyond the lines”)</i>
Students at this level are able to: <ul style="list-style-type: none">• provide critical responses in a vague or general manner;• provide simple responses, supporting them with general statements that draw on information that is explicitly presented in the text;• use some details from the text, including some that may be irrelevant, to support their response.

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