Parkville High School

2600 Putty Hill Ave
Parkville,MD 21234

Mathematics, Science & Computer Science Programs
Teacher Academy of Maryland

2024-2025 Assessment Guidelines

Eligibility

Applications must be submitted on or before 1 p.m. on Friday, November 3, 2023. Applications can be accessed from the BCPS Magnet Programs' Web site (www.tinyurl.com/BCPSMagnet) beginning at 12:00 noon on Tuesday, September 12, 2023. Late applications are not processed.

Applicants must attend and complete the assessment for the program to which they applied. Failure to do so will disqualify the applicant; and admission into the magnet program will be denied.

Applicants may only assess for the program(s) to which they applied. Assessments completed for a program not selected on the application will not be scored.

Documented testing accommodations, as appropriate to the assessment, will be provided. Education plans for students not currently attending a BCPS school must be submitted with the magnet application.

Assessment Scheduling

Assessments must be scheduled through the online application system when the application is submitted.

Failure to attend an assessment WILL result in disqualification.

If there are scheduling conflicts with other magnet assessments, parents must contact the Magnet Programs' office by no later than November 8, 2023.

It is the responsibility of the parent(s) to:
- ensure the applicant attends the assessment on the scheduled date and time.
- ensure the applicant brings the required materials to the assessment.
- contact the schools immediately if an unforeseen illness or emergency occurs.

Unforeseen Illness or Emergency: If the applicant cannot attend or complete the scheduled assessment due to an unforeseen illness or emergency, **please immediately contact Parkville High School at (443) 809-5257.** Please be aware that assessments will not be rescheduled without documentation verifying the illness or emergency. Documentation must be provided to the school within 72 hours of the illness or emergency.

Inclement Weather: If school activities are cancelled due to inclement weather, magnet assessments will be postponed. Postponed assessments will occur on the designated inclement weather date. All emergency closing and cancellation information will be posted on the BCPS automated information line, (443) 809-5555. Closings and cancellation announcements may also be made through local media.

Academic Integrity

By taking the BCPS magnet assessments, applicants agree NOT to participate in any of the following activities. Violation of this agreement may result in disqualification:
- Submitting, copying, or attempting to copy another's work, including plagiarizing another's words or ideas
- Using or attempting to use unauthorized materials and/or technology
- Falsifying information in an academic exercise

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- Assisting another in academic dishonesty

<u>Assessment Overview</u>

Magnet Coordinator(s): Melissa Burkhardt   (443) 809-5257   mburkhardt@bcps.org

Assessment Date(s): Wednesday, Jan. 3, 2024 @ 4:30 - 6:30 p.m.
Applicants must arrive 30 minutes prior to assessment start time
Inclement Weather Date: Wednesday, Jan. 17, 2024

Assessments are by appointment only. Assessments must be scheduled by Nov. 8, 2023.

Assessment Duration: 1 hour 15 min.

Assessment Description: Applicants will take an online multiple-choice test at the school consisting of approximately 25 language arts questions and 25 math questions.

<u>On-Site Registration</u>

- **Arrival:** Registration will be in the auditorium lobby beginning at 4 p.m. Testing will begin promptly at 4:30 p.m. Applicants arriving after 4:30 p.m. will not be admitted into the testing area.

- **Accompaniment Information:** Applicants should be accompanied by at least one parent. Parents should plan to return to the school by 5:45 p.m. to pick up their child.

- **What to Bring (see Preparing for the Assessment below for details):**

    o   Computer (not a phone or iPad) with WiFi capability
    o   Computer charger
    o   At least one #2 pencil
    o   Calculator (optional)

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<u>Assessment Components & Self Evaluation</u>

Evaluation Component	Scoring	My Information	Point Values
Math Enrollment Algebra I preferred	Above Grade 8 Math=10 pts Grade 8 Math=5 pts Below Grade 8 Math=0 pts	My current math course is: _____ (record math course here)	___ / 10 pts
Grade Average 2.5 (B) average or higher preferred	2.5 (B) average or higher=7 pts each Less than 2.5 (B) average=0 pts each	English/Lang. Arts Avg: ____ Social Studies Avg:_____ Math Avg: ____ Science Avg:_____	___ / 10 pts ___ / 10 pts ___ / 10 pts ___ / 10 pts
Language Arts Test	Applicant may earn up to 25 pts	To be determined on scheduled assessment date	25 pts
Math Test	Applicant may earn up to 25 pts	To be determined on scheduled assessment date	25 pts
TOTAL			___ / 100 pts

Academic Evaluation: The Academic Evaluation is conducted by BCPS Magnet Programs staff using the applicant's report cards. See below for a description of the grade calculation method. The chart below is for reference only and should not be submitted with assessment or application materials.

How to Calculate Grade Averages:
Convert marking period letter grades to points (A=4, P=4, B=3, C=2, D=1, E/F=0).
Then divide by the number of marking periods.
Alternate grading scales and/or weighted grades will not be used in calculating Grade Averages.

Subject	Last year's Report Card 1st marking pd. grade/points	Last year's Report Card 2nd marking pd. grade/points	Last year's Report Card 3rd marking pd. grade/points	Last year's Report Card 4th marking pd. grade/points (if applicable)	Current year's Report Card 1st marking pd. grade/points	Total Points	Total Marking Periods (4 or 5)	Grade Average (Total pts ÷ Total Marking Periods)
English/Lang Arts								
Math								
Science								
Social Studies								

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<u>Preparing for the Assessment</u>

Applicants will take an online multiple-choice test at the school consisting of approximately 25 language arts questions and 25 math questions..

Students are required to bring a computer with internet access to complete the test. Cell phones and iPads may not be used for the assessment. If the student does not have access to a computer for the assessment, parents MUST contact Missy Burkhardt (mburkhardt@bcps.org) no later than one month prior to their child's assessment appointment.

BCPS students will access the Google Meet link using their BCPS account. Non-BCPS students will need to establish a Google account prior to the assessment to access the Google Meet link.

Math & Language Arts Assessments:
Applicants can prepare for the assessment by reviewing material covered in Pre-Algebra and Algebra I. Review basic skills learned in language arts. Students should also see Sample Questions below.

Sample Questions

<u>**MATHEMATICS**</u>
These questions represent a sampling of the types of math skills that will be assessed. Calculators are permitted for the test but will **not** be provided.

1. Anna bought 2 pens for $3 each and 6 pencils for $2. Her friend Sara paid $4 for 2 notebooks. How much did Anna spend at the store?
    Which of the following facts is unnecessary to find the answer to this problem?
    A. 2 pens for $3 each
    B. 6 pencils for $2
    C. $4 for 2 notebooks
    D. All the facts are necessary

2. Luke and Aaron took their little brother to an amusement park. They spent $\frac{3}{5}$ of their time on the merry-go-round, $\frac{1}{4}$ of their time in the wave pool, $\frac{2}{7}$ of their time on a roller coaster, and $\frac{3}{10}$ of their time on the Ferris wheel. Where did they spend the most time?
    A. Wave pool
    B. Merry-go-round
    C. Roller Coaster
    D. Ferris Wheel

3. Given the equation 3x-2=10, write the steps involved for solving for the variable.

4. Three students went to Subway, pooled their money, and purchased a $7 foot-long sandwich to share. Independently, each student also bought a drink and a cookie. If together the three students spent a total of $10 at Subway, how much did each student spend on their drink and cookie? Write an equation and solve.

5. Simplify $|7 - 14|$
   A. -7
   B. 21
   C. 7
   D. 6

6. Which ordered pair is a solution for $3x + y = 8$?
   A. (0, 8)
   B. (1, 4)
   C. (2, 3)
   D. (-1, 10)

7. If 6,214 is divided by 2, how much smaller will the resulting number be compared to 6,214?

8. Which quantity is the largest? The sum of 12 and -3, the product of 12 and -3, or the difference of 12 and -3?

9. Find the slope of the line containing the points (- 3, 7) and (2, 4).

10. Given the points (4 , 2) and (7, k),find the value of k if the slope of the line containing the two points is $\frac{11}{6}$.

11. For the function $y = 2x - 3$, find the value of x when $y = 9$

12. For the function $y = 7 - 2x$, find the value of y when $x = 7$

13. Compare using <, >, or =. Circle the correct sign.

$$\sqrt{19} \qquad <, >, = \qquad 5\frac{1}{2}$$

14. Evaluate the expression, $3(x + y)^2 - \frac{24}{z}$, if $x = 2$, $y = -4$, and $z = 3$.

15. An 84-inch tree is growing at a rate of 4 inches per year.   Which expression represents the height after r years?
   A. $4r + 84$
   B. $4r - 84$
   C. $84r + 4$
   D. $84r - 4$

16. In a given year, May 5th falls on a Monday. On what day of the week will May 24th fall that same year?

17. At the carnival, Joseph bought 2 adult tickets for d dollars each and 4 children's tickets for c dollars each that cost him a total of $20. Write an expression that represents this situation.

18. Ella is putting new carpet in her bedroom. Her bedroom is square and she has ordered 144 square feet of carpet. How long is each wall of her room?

19. Which expression is equivalent to $2x - 3y + 5y - 8x$?

    A. $10x + 8x$ B. $-6x + 2y$ C. $10x - 2y$ D. $-2xy$

20. In which equation does x have a value of -5?

    A. $4x - 2x + 4 = -8$

    B. $8x + 10 = 3x - 5$

    C. $2(x - -3) = 10$

    D. $3x + 4x - (-7) = -28$

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LANGUAGE ARTS
These questions represent a sampling of the types of language arts skills that will be assessed.

Read the following passage and use it to answer questions 1-3.

School Photographer
By Kristine O'Connell George

When I am behind my camera lens
I can make people stand closer,
wrap their arms around each other,
even get them to smile.
When I am behind my camera lens
I see things others don't.
I can record a single moment
that *distorts* or tells the truth.
When I am behind my camera lens
I can see everything
except my own self, hiding
behind my camera.

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1. Why does the speaker feel hidden?
    a. No one can see her
    b. She is looking through the camera
    c. There is no one around
    d. Other people are standing in front of her

2. In line 6, when the speaker says, "I see things others don't," she most likely means _____.
    a. People often overlook what's around them
    b. People don't pay attention when their picture is taken
    c. Cameras are the most accurate form of record keeping
    d. The camera lens is like a microscope

3. In the first four lines, the speaker likes being a photographer because she _____.
    a. Likes to take pictures of her friends
    b. Gets to make other people do things
    c. Enjoys the feel of the camera in her hands
    d. Wants to become a better school photographer

Questions 4-6 are not based on a reading. For Questions 4-6, choose the word or group of words that means the same, or about the same, as the underlined word.

4. Mr. Martinez told Dave to <u>enunciate</u> the word carefully, so everyone in the audience would hear it clearly. <u>Enunciate</u> means _____.
    a. examine
    b. write
    c. pronounce
    d. describe

5. School was closed due to the <u>adverse</u> weather conditions. <u>Adverse</u> means _____.
    a. windy
    b. difficult
    c. slippery
    d. snowy

6. These directions will tell you how to <u>operate</u> the toy.

In which sentence does the word <u>operate</u> mean the same thing as in the sentence above?

    a. Carol knows how to <u>operate</u> that computer.
    b. The doctor will <u>operate</u> on my grandfather tomorrow.
    c. It's sometimes hard to <u>operate</u> a business.
    d. This engine doesn't <u>operate</u> well at all.

Read the 2 passages from *Dear Mr. President: Thomas Jefferson: Letters from a Philadelphia Bookworm*, a novel that takes place when President Jefferson was in office. The girl writing the letter had recently moved from Philadelphia to Pittsburgh.

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from Dear Mr. President:
Thomas Jefferson: Letters from a Philadelphia Bookworm
By Jennifer Armstrong

At the beginning of the 1800's, America was still a brand-new country. Its citizens were still learning who they were and where they might go in their new surroundings. To lead them, they had one of the most talented and brilliant presidents this country has ever seen: Thomas Jefferson. He was not only a statesman and politician. He was not only the man who drafted our revolutionary Declaration of Independence. He was also a musician, a scientist, an inventor, an engineer, an architect, a gardener, a family man, a friend, and a philosopher. Perhaps no other president in American history has come close to his incredible range of interests, skills, and talents.

In addition to being the third president of the United States, Thomas Jefferson was the president of the American Philosophical Society in Philadelphia. Philadelphia was the largest, most intellectual, and most sophisticated city in America at that time. The American Philosophical Society included some of the country's most respected scientists and thinkers.

Imagine, then, a girl named Amelia Hornsby living during the early 1800's in Philadelphia. In this city, she would have rubbed elbows with some of the brightest lights in the country. She would have received a good education in Philadelphia, which had very progressive ideas about schooling. And she would have taken an active and lively interest in the current events and political affairs of her day, even writing to the president if she felt it was her duty. Imagine Amelia writing to President Jefferson.

November 30, 1806
Pittsburgh
To Mr. Thomas Jefferson, President
Washington, D.C.

Dear Sir,
We have by now read many of the reports ourselves, as they have been published in the Gazette. Of much interest here at Pittsburgh was the news, brought to us by a member of this college, of having attended the public auction in Saint Louis where Captains Lewis and Clark sold off so many of the items employed on their tour. This colleague of my father's, one Landau Herrick, bought for himself the rifle carried by Pvt. Cruzatte; and as we understand, it was this rifle by which Captain Lewis was accidentally shot and wounded. It is a souvenir of considerable value to Mr. Herrick and of interest to us all.

We will be very eager to know if Capts. Lewis and Clark and their entourage will be stopping at Pittsburgh. The news informs us that they make very slow progress indeed, as they are stopped at every town and settlement and hailed as returning heroes. I imagine they will be heartily sick of balls and banquets before they take another step. Yet, if they do come to Pittsburgh, we shall not fail to celebrate these titans of exploration.

How sorry I was to learn that Sacagawea must stay with her husband, Charbonneau, with the Mandan. What puzzles me is the report that Charbonneau was paid in excel of $500 for his services to the Corps of Discovery; but nowhere have I found a report of any payment rendered to Sacagawea. I should be most interested to hear at what value her services were placed. For inasmuch as she did most swiftly and expertly guide the company across the Rocky Mountains and to the Colorado River, thence to the sea, her services would seem invaluable.

And inasmuch as I must consider some employment for myself beyond being my father's hostess (for he is to marry a widow lady of this town), I should like to know how highly a woman might be compensated for hard work. I do not propose that I should be a wilderness guide. But it has been suggested to me that a person of my education and attainments might do well as a teacher for young ladies; and as this suits my temper very well, I think I may try it when I am of suitable years.

Respectfully yours,
Amelia Hornsby
P.S. I hope that the Negro slave York was not also denied his fair portion of reward? A.H.

Answer the following questions:
7. Amelia's letter can best be described as:
   a. a personal reflection to events
   b. a narrative of an unusual situation
   c. an exploration of a plan for the future
   d. an explanation of a particular time period

8. Which of these questions is NOT answered by the details and events in this passage?
   a. What happened to Amelia's mother?
   b. What is Amelia's attitude toward Sacagawea?
   c. How concerned is Amelia with current events?
   d. Why is Amelia interested in the purchase of Pvt. Cruzatte's rifle?

9. Read this sentence from paragraph 2 of the letter.

"Yet, if they do come to Pittsburgh, we shall not fail to celebrate these titans of exploration."

The word in paragraph 2 that most helps a reader understand the meaning of **titans** is:

        a. entourage
        b. progress
        c. heroes
        d. banquets

10. Read this sentence from paragraph 4 of the letter.

    "But it has been suggested to me that a person of my education and attainments might do well as a teacher for young ladies; and as this suits my temper very well, I think I may try it when I am of suitable years."

    In this sentence, the word **suitable** suggests:

        a. advanced
        b. appropriate
        c. matching
        d. noticeable

For items 11 – 25 examine the sentences carefully. Select the sentence, word, or phrase that is correct according to the rules for standard written English punctuation and grammar.

11.   A. When two people date steadily and restrict their social activities.
       B. When two people date steadily, they restrict their social activities.
       C. When two people date steadily and they restrict their social activities.

12.   A. I will be happy to babysit, you seem too tired.
       B. I will be happy to babysit. You seem too tired.
       C. I will be happy to babysit you seem too tired.

13.   A. Memorizing rules is not as important as to understanding the principles behind them.
       B. To memorize rules is not as important as understanding the principles behind them.
       C. Memorizing rules is not as important as understanding the principles behind them.

14.   A. He wants everything, but he didn't want to work for it.
       B. He wants everything, but he doesn't want to work for it.
       C. He wants everything, but he wouldn't work for it.

15.   A. Looking through the gunsight, the deer ran away.
       B. I saw the deer looking through the gunsight run away.
       C. Looking through the gunsight, I saw the deer run away.

16.   A. Finding a nice place to take his wife out for dinner for their anniversary was difficult.
       B. Finding a nice place to take his wife out for dinner for their anniversary.
       C. Finding a nice place to take his wife out for dinner for their anniversary and having a difficult time succeeding.

17.   A. Frank refused to work hard, he was fired.
      B. Frank refused to work hard he was fired.
      C. Frank refused to work hard, so he was fired.

18.   A. The stew was thick, cold and did not have any taste.
      B. The stew was thick, cold and you couldn't taste anything.
      C. The stew was thick, cold and tasteless.

Sample Questions Answer Key

MATHEMATICS

1. C- the question is asking how much money Anna spent, information about what Sara spent is unneeded.

2. B- convert each fraction to a decimal and see which one is greater.

3. Add 2 to both sides, and then divide everything by 3

4. $7 + 3x = 10$ (where x = each student's cost for a drink and cookie)
$$\underline{-7 \quad -7}$$
$$3x = 3$$
$$\underline{\div 3 \quad \div 3}$$
$$x = 1$$

5. C- 7 – 14 = -7, but the absolute value means it needs to be made positive

6. A- 3(0) + 8 = 0 + 8 = 8. Plug each pair into the equation and determine which one works.

7. $\frac{6,214}{2} = 3,107,$ $6,214 - 3,107 = 3,107.$

8. The difference. Sum: 12 + -3 = 9   Product: 12(-3) = -36   Difference: 12 - -3 = 15

9. $\frac{4-7}{2- -3} = \frac{-3}{5}$

10. $\frac{k-2}{7-4} = \frac{11}{6}$

$$\frac{k-2}{3} = \frac{11}{6}$$

$$6k - 12 = 33$$

$$6k = 45$$

$$k = \frac{45}{6} = \frac{15}{2}$$

11. $9 = 2x - 3$
    $ +3 \quad +3$
    $ 12 = 2x$
    $ \div 2 \quad \div 2$
    $ x = 6$

12. $y = 7 - 2(7)$
    $ y = 7 - 14$
    $ y = -7$

13. $<, \sqrt{19} = 4.35 \; and \; 5\frac{1}{2} = 5.5$

14. $3\left(2 + (-4)\right)^2 - \frac{24}{3} = 3(-2)^2 - 8 = 3(4) - 8 = 12 - 8 = 4$

15. A- Growing is a positive thing, so it is addition. Since the rate is 4, that is where the variable goes.

16. $24 - 5 = 19, \frac{19}{7} = 2\frac{5}{7}$, so the 24th falls 5 weekdays after the 5, Tuesday, Wednesday, Thursday, Friday, Saturday. So the 24th is a Saturday

17. $2d + 4c = 20$

18. $x^2 = 144$
    $x = \sqrt{144}$
    $x = 12$

19. B- combine like terms $2x - 8x = -6x$ and $-3y + 5y = 2y$

20. D- plug -5 into each equation for x to determine which equation works

LANGUAGE ARTS

1. **B**
2. **A**
3. **B**
4. **C**
5. **B**
6. **A**
7. **A**
8. **A**
9. **C**
10. **B**
11. **B**
12. **B**
13. **C**
14. **B**
15. **C**
16. **A**
17. **C**