Eastern Technical High School

1100 Mace Ave. Essex, MD 21221

Career and Technology Education Programs 2024-2025 Assessment Guidelines

Table of Contents

General Rules and Processes – 1
Assessment Overview – 2
Assessment Components and Self-Evaluation – 3
Preparing for the Assessment – 4

Eligibility

Applications must be submitted on or before 1 p.m. on Friday, November 3, 2023. Applications can be accessed from the <u>BCPS Magnet Programs' Web site</u> (<u>www.tinyurl.com/BCPSMagnet</u>) 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 Eastern Technical High School at (443) 809-0190.** 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
- Assisting another in academic dishonesty

Assessment Overview

Magnet Coordinator(s):Rebecca Talbottrtalbott@bcps.orgMaria McClungmmcclung@bcps.org

Assessment Date(s): Tuesday, Jan. 9, 2024 @ 4 p.m.

Applicants must arrive 30-60 minutes prior to assessment start time

Inclement Weather Date: Tuesday, Jan. 16, 2024 (for Jan. 9 appointments)

Thursday, Jan. 11, 2024 @ 4 p.m.

Applicants must arrive 30-60 minutes prior to assessment start time *Inclement Weather Date: Thursday, Jan. 18, 2024 (for Jan. 11 appointments)*

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

Assessment Duration: 2 hours

Assessment Description: Applicants will complete a multiple-choice assessment consisting of approximately 25 English/language arts questions, 25 math questions, and 10 science questions. They will also write an essay using a prompt and related reading.

Students applying to more than one program at Eastern (besides Culinary Arts) only need to complete one assessment – the assessment scores will apply to all Eastern programs (except Culinary Arts). Students applying to Culinary Arts at any school must schedule a separate appointment (please see assessment guidelines for Culinary Arts/Baking & Pastry).

On-Site Registration

- **Arrival:** Registration will begin in the main lobby beginning at 3 p.m.. Applicants will be directed to the registration area. No applicant will be permitted to register for an assessment after 4 p.m.
- **Accompaniment Information:** Parents are asked to drop off applicants and return at the conclusion of the assessment. Parking is very limited and parents will not be allowed in the building. Upon completion of the assessment, applicants will return to the main lobby to contact parents. Cell phone should not be turned on until the applicant has reached the main lobby.
- What to Bring (see Preparing for the Assessment below for details):
 - No outside resources (calculators, notes, etc.) or book bags will be permitted.
 - No food or drink will be permitted.

Assessment Components & Self Evaluation

Grade 9 Applicants

Evaluation Component	Scoring	My Information	Point Values
Math Enrollment	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=5 pts each Less than 2.5 (B) average=0 pts each	English/Lang. Arts Avg: Social Studies Avg: Math Avg: Science Avg:	/ 5 pts / 5 pts / 5 pts / 5 pts
Essay	Applicant may earn up to 10 pts	To be determined on scheduled assessment date	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
Science Test	Applicant may earn up to 10 pts	To be determined on scheduled assessment date	10 pts
TOTAL			/ 100 pts

Grade 10 Applicants

Evaluation Component	Scoring	My Information	Point Values
Math Enrollment	Above Algebra I=10 pts Algebra I=5 pts Below Algebra I=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=5 pts each Less than 2.5 (B) average=0 pts each	English/Lang. Arts Avg: Social Studies Avg: Math Avg: Science Avg:	/ 5 pts / 5 pts / 5 pts / 5 pts
Essay	Applicant may earn up to 10 pts	To be determined on scheduled assessment date	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
Science Test	Applicant may earn up to 10 pts	To be determined on scheduled assessment date	10 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 1 st marking pd. grade/points	Last year's Report Card 2 nd marking pd. grade/points	Last year's Report Card 3 rd marking pd. grade/points	Last year's Report Card 4 th marking pd. grade/points (if applicable)	Current year's Report Card 1 st 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								

Preparing for the Assessment

Applicants will complete a multiple-choice assessment consisting of approximately 25 English/language arts questions, 25 math questions, and 10 science questions. They will also write an essay using a prompt and related reading.

Prior to the assessment, applicants may want to review:

Language Arts Concepts: identifying main idea, answering questions based upon a reading passage, grammar, and punctuation.

Math Concepts: basic operations with fractions, solving equations, writing equations of lines, and analyzing simple lab results.

Science Concepts: how to read a chart/graph/visual, elements of the periodic table, the scientific method, analyzing lab results and data.

Essay: applicants are asked to read a passage and write a multi-paragraph essay in response to a prompt. Applicants are scored using a rubric on the following categories: Topic, Focus, Support, Organization, and Mechanics.

REMINDERS:

NO prepared materials may be brought to the assessment.

Applicants' cell phones MUST REMAIN OFF. Failure to follow this policy may result in the disqualification of the student.

Sample Language Arts Questions

Directions: 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.

 Why does the speaker feel hidde 	1.	Whv	does	the	speaker	feel	hidde
---	----	-----	------	-----	---------	------	-------

- 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

d. Wants to become a better school photographer

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

Questions 4-6 are not based on a reading.

4. Choose the word or group of words that means the same, or about the same, as the underlined word.

Mr. Martinez told Dave to enunciate the word carefully, so everyone in the audience would hear it clearly.

Enunciate means	
a evamine	

- a. examine
- b. write
- c. pronounce
- d. describe

School was closed due to the adverse weather conditions.	
Concor was stocked and to the <u>adverse</u> weather containents.	

Advers	se means	
	windy	

- c. slippery
- d. snowy
- 6. Choose the word or group of words that means the same, or about the same, as the underlined word.

These directions will tell you how to operate the toy.

In which sentence does the word operate mean the same thing as in the sentence above?

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

Read "What Happened During the Ice Storm." Then answer questions 7-15.

"What Happened During the Ice Storm" by Jim Heynen

One winter there was a freezing rain. "How beautiful!" people said when things outside started to shine with ice. But the freezing rain kept coming. Tree branches glistened like glass. Then broke like glass. Ice thickened on the windows until everything outside blurred. Farmers moved their livestock into the barns and most animals were safe. But not the pheasants¹. Their eyes froze shut.

Some farmers went ice-skating down the gravel roads with clubs to harvest the pheasants that sat helplessly in the roadside ditches. The boys went out into the freezing rain to find pheasants too. They saw dark spots along a fence. Pheasants all right. Five or six of them. The boys slid their feet along the ground slowly, trying not to break the ice that covered the snow. They slid up close to the pheasants. The pheasants pulled their heads down between their wings. They couldn't tell how easy it was to see them huddled there.

The boys stood in the icy rain. Their breath came out in slow puffs of steam. The pheasants' breath came out in quick little white puffs. Some of them lifted their heads and turned them from side to side, but they were blindfolded with ice and didn't flush. The boys had not brought clubs or sacks, or anything but themselves. They stood over the pheasants, turning their own heads, looking at each other, each expecting the other to do something. To pounce on a pheasant, or to yell Bang! Things around them were shining and dripping with icy rain. The barbed-wire fence. The fence posts. The broken stems of grass. Even the grass seeds. The grass seeds looked like little yolks inside gelatin whites. And the pheasants looked like unborn birds glazed in egg white. Ice was hardening on the boys' caps and coats. Soon they would be covered with ice too.

Then one of the boys said, "Shh." He was taking off his coat, the thin layer of ice splintering in flakes as he pulled his arms from the sleeves. But the inside of the coat was dry and warm. He covered two of the crouching pheasants with his coat, rounding the back of it over them like a shell. The other boys did the same. They covered all the helpless pheasants. The small gray hens and the larger brown cocks. Now, the boys felt the rain soaking through their shirts and freezing. They ran across the slippery fields, unsure of their footing, the ice clinging to their skin as they made their way toward the blurry lights of the house.

¹pheasants – (n) a large bird resembling a chicken

- 7. What idea is best demonstrated in the passage?
 - a. Ice is more fun than snow.
 - b. Farmers and young boys are cruel.
 - c. Storms can be dangerous for any living creature.
 - d. Pheasants are stupid creatures who do not care for themselves.
- 8. Read this sentence from the story.

He was taking off his coat, the thin layer of ice splintering in flakes as he pulled his arms from the sleeves.

In this sentence, the word *splintering* most likely means

- a. dividing a group
- b. exploding a bomb
- c. breaking into pieces
- d. splitting off from a large part

- 9. Which of these issues would readers better understand after reading the story?
 - a. the need for more financing for farmers
 - b. the childish behavior of groups of young boys
 - c. the basic dangers of living in an area prone to winter weather
 - d. the importance of caring for all creatures who cannot care for themselves
- 10. Read this sentence from the passage.

Their breath came out in slow puffs of steam.

In this sentence, which of these is NOT a noun?

- a. breath
- b. puffs
- c. steam
- d. their
- 11. Reread these sentences from the story.

The pheasants pulled their heads down between their wings. They couldn't tell how easy it was to see them huddled there.

The author's description of the pheasants implies that they are

- a. afraid
- b. brave
- c. cautious
- d. dumb
- 12. The passage mostly develops the theme of
 - a. caring for others
 - b. obeying authority
 - c. recognizing danger
 - d. overcoming obstacles
- 13. Reread these lines from the passage.

The grass seeds looked like little yolks inside gelatin whites. And the pheasants looked like unborn birds glazed in egg white.

The author chooses to use the words "yolks" and "unborn birds" to show

- a. the innocence of the pheasants
- b. the fragile condition of the ice
- c. the farmer's need for pheasant meat
- d. the thin shell on the boys' coats and hats

- 14. The main conflict for the boys in the story is between
 - a. believing farmers are cruel and being hungry
 - b. wanting to ice skate and not liking cold weather
 - c. going to hunt and feeling sorry for the pheasants
 - d. having to be home soon and wanting to play outside
- 15. In the first line of paragraph 2, the word *harvest* is used as a(n)
 - a. article
 - b. modifier
 - c. noun
 - d. verb

For questions 16 – 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.

- 16. 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.
- 17. 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.
- 18. 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.
- 19. 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.
- 20. 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.
- 21. 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.
- 22. 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.
- 23. 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.

- 24. A. The man who was continually interrupting the speaker and upsetting the audience.
 - B. The man was continually interrupting the speaker and upsetting the audience.
 - C. The man continually interrupting the speaker and upsetting the audience.

Sample Language Arts Questions Answer Key

- 1. B
- 2. A
- 3. B
- 4. C
- 5. B
- 6. A
- 7. C
- 8. C
- 9. D
- 10. D 11. D
- 11. 0
- 12. A 13. A
- 14. C
- 15. D
- 16. B
- 17. B
- 18. C
- 19. B
- 20. C
- 21. A
- 22. C
- 23. C
- 24. B

Sample Mathematics Problems

1.) Solve the following:
$$\frac{1}{4} + \frac{1}{5}$$

2.) Solve the following:
$$\frac{4}{5} - \frac{2}{3}$$

3.) Solve the following:
$$\left(\frac{3}{10}\right) \div \left(\frac{6}{5}\right)$$

5.) Evaluate:
$$6 \div (2+1) \cdot 3 - 9$$

6.) Solve for *x*:
$$-9x + 2 = 20$$

7.) Solve for *z*:
$$\frac{3}{4}z + 2 = 8$$

8.) Solve for *a*:
$$4a - 2 = 2a + 8$$

9.) Solve for *x*:
$$\frac{2}{5} = \frac{4}{x}$$

10.) The cost to enter a carnival is \$5.00. Each ride at the carnival costs \$0.50. The cost to enter the carnival and for x number of rides is \$7.50. Write an equation that models this situation.

Sample Mathematics Solutions

1.) Solve the following: $\frac{1}{4} + \frac{1}{5}$

$$\frac{1}{4} + \frac{1}{5} = \frac{5}{5} \left(\frac{1}{4} \right) + \frac{4}{4} \left(\frac{1}{5} \right) = \frac{5}{20} + \frac{4}{20} = \frac{9}{20}$$

2.) Solve the following: $\frac{4}{5} - \frac{2}{3}$

$$\frac{4}{5} - \frac{2}{3} = \frac{3}{3} \left(\frac{4}{5}\right) - \frac{5}{5} \left(\frac{2}{3}\right) = \frac{12}{15} - \frac{10}{15} = \frac{2}{15}$$

3.) Solve the following: $\left(\frac{3}{10}\right) \div \left(\frac{6}{5}\right)$

$$\left(\frac{3}{10}\right) \div \left(\frac{6}{5}\right) = \left(\frac{3}{10}\right) \left(\frac{5}{6}\right) = \frac{15}{60} = \frac{1}{4}$$

4.) Determine the 7th term of the sequence. -10, -6, -2, 2, . . .

Pattern: increase by 4

The 7th term is 14.

5.) Evaluate: $6 \div (2+1) \cdot 3 - 9$

Use the order of operations (PEMDAS)

$$6 \div (2+1) \cdot 3 - 9$$

$$6 \div 3 \cdot 3 - 9$$

$$2 \cdot 3 - 9$$

$$6 - 9$$

$$-3$$

6.) Solve for x: -9x + 2 = 20

$$-9x + 2 = 2 -
-9x + 2 - 2 = 20 - 2
-9x = 18
-\frac{9x}{9} = \frac{18}{-9}
x = -2$$

7.) Solve for z:
$$\frac{3}{4}z + 2 = 8$$

$$\frac{3}{4}z + 2 - 2 = 8 - 2$$

$$\frac{3}{4}z = 6$$

$$\left(\frac{4}{3}\right)\left(\frac{3}{4}\right)z = 6\left(\frac{4}{3}\right)$$

$$z = \frac{24}{3}$$

$$z = 8$$

8.) Solve for a:
$$4a - 2 = 2a + 8$$

$$4a - 2 = 2a + 8$$

$$4a - 2 + 2 = 2a + 8 + 2$$

$$4a = 2a + 10$$

$$4a - 2a = 2a = 2a + 10$$

$$2a = 10$$

$$\frac{2a}{2} = \frac{10}{2}$$

$$a = 5$$

9.) Solve for x:
$$\frac{2}{5} = \frac{4}{x}$$

$$\frac{2}{5} = \frac{4}{x}$$

$$(x) \left(\frac{2}{5}\right) = \left(\frac{4}{x}\right)(x)$$

$$\frac{2x}{5} = 4$$

$$\left(\frac{5}{2}\right) \left(\frac{2x}{5}\right) = 4\left(\frac{5}{2}\right)$$

$$x = \frac{20}{2}$$

$$x = 10$$

10.) The cost to enter a carnival is \$5.00. Each ride at the carnival costs \$0.50. The cost to enter the carnival and for x number of rides is \$7.50. Write an equation that models this situation.

$$5.00 + 0.50x = 7.50$$

11.) What is the slope of the line joining (1, 4) and (-3, 2)?

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{2 - 4}{-3 - 1} = \frac{-2}{-4} = \frac{1}{2}$$

12.) Find the equation of the line with slope of 4 that passes through the point (0, -6).

$$m = 4$$

$$(0,-6) \rightarrow b = -6$$

$$y = mx + b$$

$$y = 4x + b$$

$$y = 4x - 6$$

13.) Find the equation of the line with slope of 5 that passes through the point (2, 4).

$$m = 5$$

$$y = mx + b$$

$$y = 5x + b$$
Substitute in the point (2,4) and solve for b.
$$4 = 5(2) + b$$

$$4 = 10 + b$$

$$b = -6$$

$$y = 5x - 6$$

14.) Find the equation of the line containing the points (2, 6) and (4, 0).

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{0 - 6}{4 - 2} = -\frac{6}{2} = -\frac{3}{1} = -3$$

$$y = mx + b$$

$$y = -3x + b$$
Substitute in one of the points and solve for b.
$$(2, 6)$$

$$6 = -3(2) + b$$

$$6 = -6 + b$$

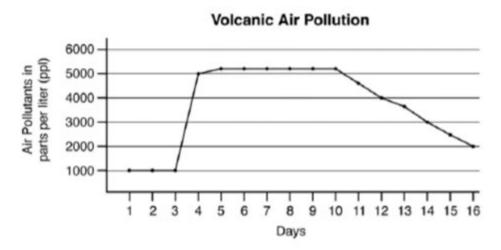
b = 12y = -3x + 12

Sample Science Questions

- 1. Which of the following presents a safety hazard while working in a science laboratory?
 - a. Knowing how to use equipment
 - b. Wearing safety goggles
 - c. Following directions
 - d. Working alone
- 2. Shannon wanted to see if a solid substance is an acid or a base. In what order should she do the following steps?
 - Test with blue litmus paper.
 - Dissolve the substance in water.
 - Look at any changes in the color of the litmus paper.
 - Grind some of the substance to make a powder.
 - a. Test with blue litmus paper, grind some of the substance to make a powder, dissolve the substance in water, look at any changes in the color of the litmus paper
 - b. Dissolve the substance in water, test with blue litmus paper, look at any changes in the color of the litmus paper, grind some of the substance to make a powder
 - c. Look at any changes in the color of the litmus paper, dissolve the substance in water, test with blue litmus paper, grind some of the substance to make a powder
 - d. Grind some of the substance to make a powder, dissolve the substance in water, test with blue litmus paper, look at any changes in the color of the litmus paper
- 3. A very large redwood tree is measured to be about 100 units tall. Which unit is the most appropriate to use?
 - a. Millimeters
 - b. Centimeters
 - c. Meters
 - d. Kilometers
- 4. Jamal heated 20 grams of liquid hydrogen peroxide until it was completely broken down into liquid water and oxygen gas. Which of these options best describes the total mass of water and oxygen that was produced?
 - a. More than 20 grams since heat was added
 - b. 20 grams since no matter was added or removed
 - c. Less than 20 grams since oxygen gas is very light
 - d. More than 20 grams since there are two new substances

5. Read the information below and complete the question that follows.

Scientists collected this pollution data before, during, and after a volcanic eruption. Pollution data are measured in particles per liter.



When did the eruption occur?

- a. Between days 3 and 4
- b. Between days 5 and 6
- c. Between days 10 and 11
- d. Between days 14 and 15
- 6. Review the table below and complete the question that follows.

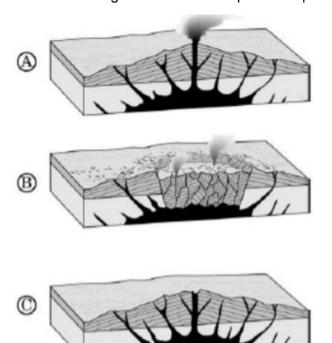
Characteristics of a Few Minerals

Mineral	Color	Streak	Hardness	Specific Gravity
talc	white	white	1	2.8
fluorite	purple	colorless	4	3.3
quartz	colorless	colorless	7	2.6
topaz	blue	colorless	9	3.6

These minerals are arranged according to their

- a. Color
- b. Streak
- c. Hardness
- d. Specific gravity

7. Review the images below and complete the question that follows.





Which list below identifies the order of events that formed a volcanic crater?

- a. CBDA
- b. BACD
- c. C A D B
- d. DBAC

Sample Science Assessment Answer Key

- 1. D
- 2. D
- 3. C
- 4. B
- 5. A
- 6. C
- 7. C