

Science Script High School





Overview of Student Readiness Tool Scripts

The Student Readiness Tools (SRTs) are resources used to familiarize students and educators with the online and paper MCAs. For students with an Individualized Education Program (IEP) or 504 plan who require read-aloud support, a mathematics or science script may be used by the Test Monitor during test administration. This introductory information and accompanying scripts are intended to support Test Monitors in familiarizing themselves and students with an MCA testing environment that includes the administration of a script.

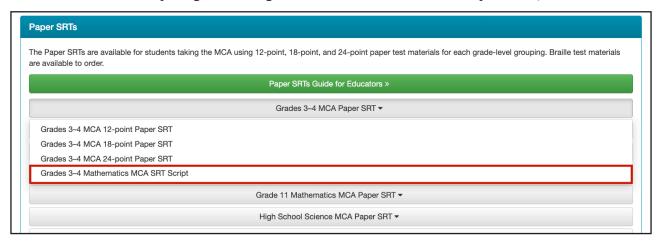
For students eligible for the script accommodation, the Test Monitor uses the script to read aloud specified portions of the test to the student. SRT scripts are provided for all grade-level SRTs containing a mathematics or science section.

For mathematics, the script must be administered with a paper test book (regular print, large print, or braille). For science, the script can be administered with the online test or with a paper test book (regular print, large print, or braille).

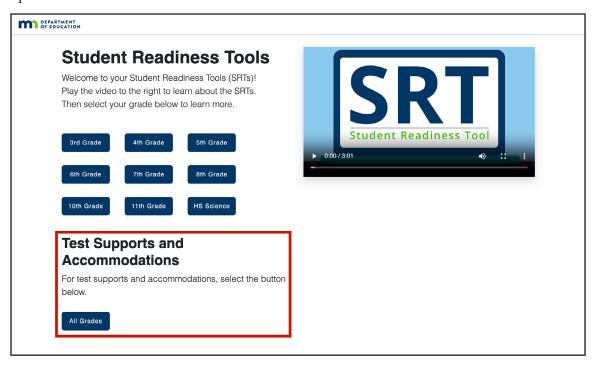
Accessing the Scripts and Corresponding SRTs

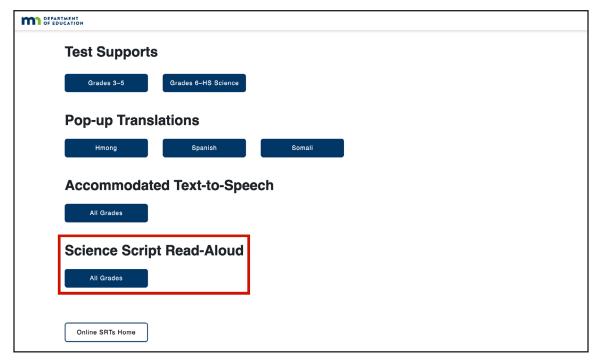
Both paper and online SRT scripts are located alongside the corresponding grade-level paper SRT under Paper SRTs on PearsonAccess Next (PearsonAccess Next > Preparing for Testing > Student Readiness Tools > Paper SRTs). Test Monitors are encouraged to reference this introductory information and the appropriate script in conjunction with the paper or online SRT being taken by the student.

If a student will be taking the MCA using a paper test book and script, Test Monitors will need to provide the student with the appropriate grade-level paper SRT under Paper SRTs in PearsonAccess Next Preparing for Testing > Student Readiness Tools > Paper SRTs).



If a student will be taking the online Science MCA with a script, Test Monitors will need to refer the student to the Science Script Read-Aloud section of the <u>online SRTs</u> under Test Supports and Accommodations (Online Student Readiness Tools > Test Supports and Accommodations > Science Script Read-Aloud). The student can then later take the remainder of the grade-level online SRTs to prepare for other components of the online test administration.

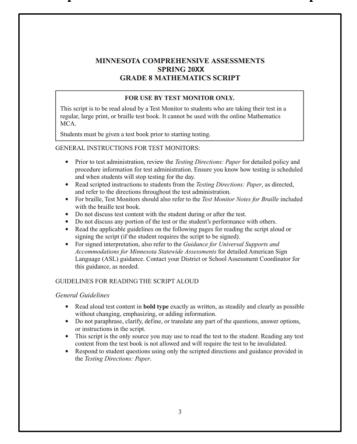




Preparing for MCA Administrations with a Script

Prior to reading the script aloud to students during testing, Test Monitors are required to carefully read the introduction included at the beginning of the script. These guidelines and instructions discuss important directions that Test Monitors must follow to ensure the script is administered correctly to students. This introductory section should not be read aloud to students.

MCA Script Guidelines and Instructions Sample Text



For grades 5, 8, and high school science, both online and paper script sections are included within the script. The *General Instructions for Test Monitors* section at the beginning of the science script lists the page ranges where the online and paper script sections can be found. Both scripts are indicated by labeled tabs that appear on each page of the script sections.

General Instructions for Test Monitors MCA Sample Text

GENERAL INSTRUCTIONS FOR TEST MONITORS: Prior to test administration, review the Testing Directions: Online or Testing Directions: Paper for detailed policy and procedure information for test administration. Ensure you know how testing is scheduled and when students will stop testing for the day. Read scripted instructions to students, as directed, and refer to the applicable Testing Directions throughout the test administration. o Refer to the Testing Directions: Online if using the script in conjunction with the online test. Refer to the Testing Directions: Paper if using the script in conjunction with the regular, large print, or braille test book. For braille, Test Monitors should also refer to the Test Monitor Notes for Braille included with the braille test book This script contains two sets of instructions: the first set is used for administering the script with the online test, and the second set is used for administering the script in conjunction with the regular, large print, or braille test book. Use the tabs on the pages to confirm you are using the correct script. o Refer to pages 6-47 when using the script in conjunction with an online test. o Refer to pages 48-77 when using the script in conjunction with the regular, large print, or braille test book. In these sections, read aloud to students ONLY what is in BOLD TYPE.

Online MCA Script Section

Online Section

SCRIPT FOR USE WITH THE ONLINE TEST

After reading the applicable scripted instructions in the *Testing Directions: Online*, say the following before you begin reading the questions on page 7.

After I read each question, I will pause for as much time as you need to answer the question. Then I will read the next question. You may ask me to repeat any questions as many times as you need.

Paper MCA Script Section

SCRIPT FOR USE WITH PAPER TEST BOOKS

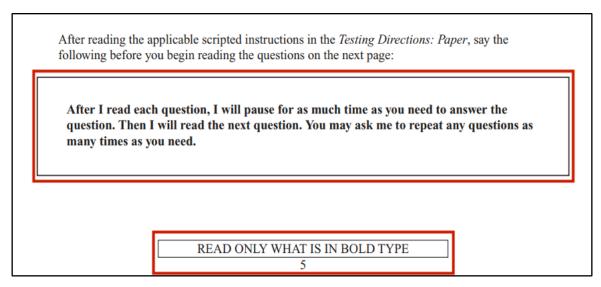
After reading the applicable scripted instructions in the *Testing Directions: Paper*, say the following before you begin reading the questions on page 49.

After I read each question, I will pause for as much time as you need to answer the question. Then I will read the next question. You may ask me to repeat any questions as many times as you need.

Paper Test Books Section

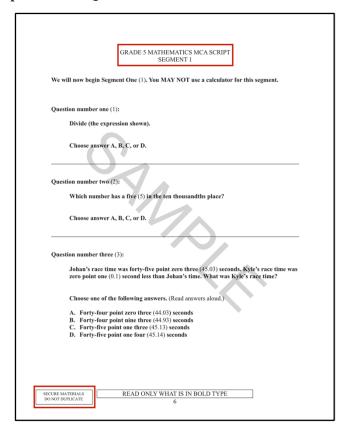
Following the guidelines and instructions at the beginning of the script, the first text that Test Monitors will read aloud to students appears. Beginning on this page and continuing throughout the script, a notification box is included as a reminder that only bolded text may be read aloud to students.

Instructions Read Aloud to Students and Bolded Text Reminder



Scripted questions are organized according to the segment or section in which they appear in the MCA and are separated by dividing lines. The scripted questions match the wording of questions in the test, and descriptions of charts, tables, and other graphics are included. At the bottom of each script page containing test content, a Secure Materials warning box is included as a reminder that test content is confidential.

Scripted MCA Questions and Secure Materials Warning



Example of Scripted Question and Test Question for Paper MCAScripted Question

Scene:

Twenty years later, grasses are growing where the pond was. The teacher and some students dig up shells.

Question number three (3):

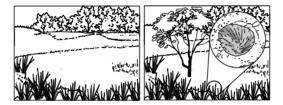
The shells are sorted by shape. Sort the remaining three (3) shells by shape.

Each remaining shell is labeled A, B, or C. Write the letter of each shell in the correct group. You may only use each letter one (1) time.

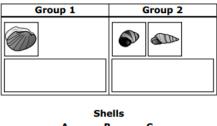
The diagram is labeled, from left to right: Group one (1), Group two (2). The answer options are titled: Shells. The diagrams are labeled, from left to right: A, B, C.

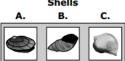
Test Question

Twenty years later, grasses are growing where the pond was. The teacher and some students dig up shells.



3. The shells are sorted by shape. Sort the remaining 3 shells by shape.
Each remaining shell is labeled A, B, or C. Write the letter of each shell in the correct group. You may only use each letter 1 time.





Example of Scripted Question and Test Question for Online Science MCA Scripted Question

Scene:

Twenty years later, grasses are growing where the pond was. The teacher and some students dig up shells.

Question number nine (9):

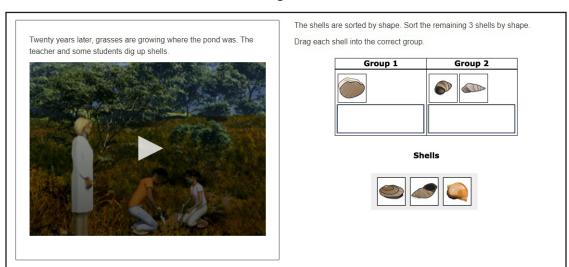
The shells are sorted by shape. Sort the remaining three (3) shells by shape.

Drag each shell into the correct group.

The boxes are labeled, from left to right: Group one (1), Group two (2). The answer options are titled: Shells.

Select the Blue arrow at the top to go on.

Test Question



Each segment or section of scripted questions is concluded by an end of segment/section notification with instructions for Test Monitors. An end of test notification appears at the end of the script.

Sample End of Segment/Section Notification for MCA (Paper)



When the student reaches the end of the segment, repeat any questions as requested by the student. The student may review answers and must seal the segment before continuing. Refer to the *Testing Directions: Paper* if stopping testing for the day at this point.

Sample End of Test Notification for MCA (Online)

STOP

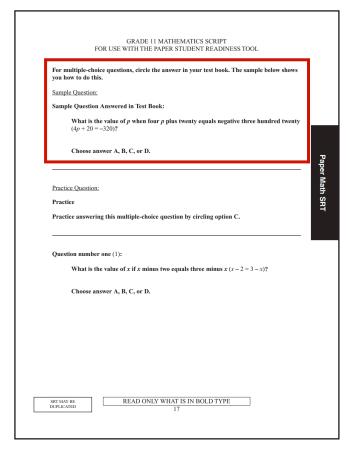
When the student reaches the end of the test, repeat any questions as requested by the student. The student may review answers online before submitting the test. Refer to the *Testing Directions: Online* for information on collection and return of test materials.

Using the SRT Scripts

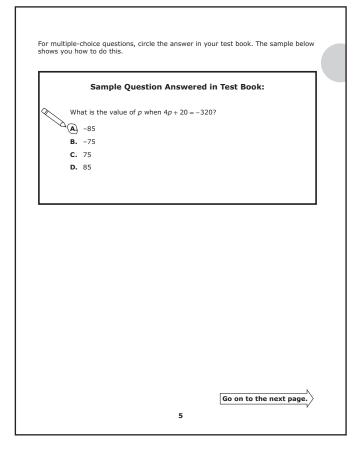
To reflect test administration with a script as closely as possible, the SRT scripts are similar to the MCA scripts in content and function, with a few notable exceptions. To allow for the inclusion of additional content in the SRTs, such as sample questions and instructions for answering test questions, the layout of the SRT scripts differs slightly from the MCA scripts. The following examples illustrate how SRT sample and practice questions appear in the SRT scripts.

Sample Question in SRT Scripts and SRTs

SRT Scripts



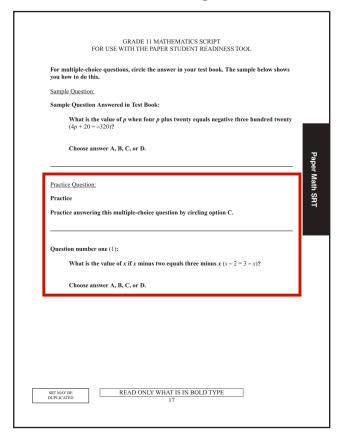
SRTs

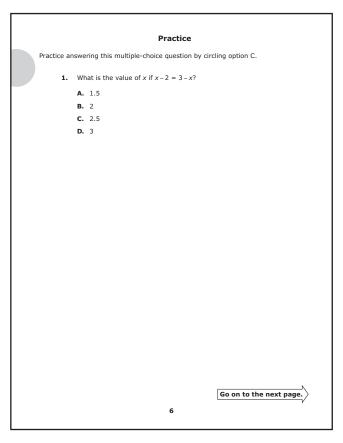


Practice Question in SRT Scripts and SRTs

SRT Scripts

SRTs





Because the SRTs contain fewer questions than the MCAs, test questions are not organized into segments or sections. Therefore, end of segment pages (for paper tests) or review screens (for online tests) do not appear in the SRTs and are not reflected in the SRT scripts. Instead, SRTs are organized into sections by subject, and a simplified notification appears at the end of each subject's section in the SRT scripts. An end of SRT notification appears at the end of the scripts.

End of Subject Section Notification for SRTs

STOP

When the student reaches the end of a subject section, repeat any questions as requested by the student. The student may review answers before continuing.

End of SRT Notification for SRTs

STOP

When the student reaches the end of the SRT, repeat any questions as requested by the student. The student may review answers before finishing the SRT.

STUDENT READINESS TOOLS (SRTS) HIGH SCHOOL SCIENCE SCRIPT

FOR USE BY TEST MONITOR ONLY.

This script is to be read aloud by a Test Monitor to students who are preparing for testing with the online or paper Student Readiness Tools.

Students must be provided the corresponding grade-level paper SRT or directed to the Science Script Read-Aloud section of the online SRTs.

GENERAL INSTRUCTIONS FOR TEST MONITORS FOR SRTS

- This SRTs script contains two sets of instructions: the first set is used for administering the script with the online Science Script Read-Aloud SRT, and the second set is used for administering the script with the High School Science paper SRT. Use the tabs on the pages to confirm you are using the correct script.
 - o Refer to pages 16–19 when using the script in conjunction with the online Science Script Read-Aloud SRT.
 - o Refer to pages 20–27 when using the script in conjunction with the science section of the paper SRT.
- Read the applicable guidelines on the following pages for reading the script aloud or signing the script (if the student requires the script to be signed).
- If the student will be testing with a braille test book, refer also to the *SRT Test Monitor Notes for Braille* included with the braille SRT.
- To prepare for test administration, refer to the <u>Guidance for Universal Supports and Accommodations for Minnesota Statewide Assessments</u> for detailed script administration and signed interpretation administration, including American Sign Language (ASL) guidance (MDE > Districts, Schools and Educators > Teaching and Learning > Statewide Testing > District Resources).

GUIDELINES FOR READING THE SCRIPT ALOUD

General Guidelines

- Read aloud SRT content in **bold type** exactly as written, as steadily and clearly as possible without changing, emphasizing, or adding information.
- Do not paraphrase, clarify, define, or translate any part of the questions, answer options, or instructions in the script.
- This script is the only source you may use to read the SRT to the student. This prepares the student for test administration since reading any test content from the test book or screen is not allowed.

Respond to the Student's Needs

- Adjust your reading speed and volume if requested by the student.
- After a question has been read, allow the student time to respond. If the pause has been lengthy, you may ask, "Do you want me to repeat the question or any part of it again?" before continuing. The student may also ask you to repeat any questions as many times as they need.

Maintain Neutrality

- Communicate in a neutral tone and maintain a neutral facial expression and posture.
- Do not attempt to determine the correct answer to a question while reading, as this may result in pauses or changes in inflection that may mislead the student or suggest the correct answer.
- Be careful to give equal emphasis to each answer option. If the student chooses an answer before all the answer options have been read, ask, "Do you want the other answer options read?" before continuing.

GUIDELINES FOR SIGNED INTERPRETATION OF SCRIPT

General Guidelines

- Sign SRT content in **bold type** as steadily and clearly as possible without changing, emphasizing, or adding information.
- Do not clarify or define any part of the questions, answer options, or instructions in the script.
- This script is the only source you may use to sign the SRT to the student. This prepares the student for test administration since signing any test content from the test book is not allowed.

Use Professional Judgment when Signing

- Do your best to use the same signs if the student requests a portion to be repeated.
- Use signs that are conceptually accurate, with or without simultaneous voicing.
- When using an ASL sign that can represent more than one concept or English word, you must adequately contextualize the word to reduce any ambiguity. You may also spell the word after signing it to remove any doubt about which word is intended.
- If you are unsure how to sign and/or pronounce an unfamiliar word, advise the student of the uncertainty and spell the word.
- In cases where signs give clues to the answer, fingerspelling must be used.

Respond to the Student's Needs

- Adjust your signing speed if requested by the student.
- Spell any words requested by the student.
- After a question has been signed, allow the student time to respond. If the pause has been lengthy, you may ask, "Do you want me to sign the question or any part of it again?" before continuing. The student may also ask you to sign any questions as many times as they need.

Use Appropriate Physical/Facial Expressions

- Use facial expressions consistent with sign-language delivery; do not use expressions that may be interpreted by the student as approval or disapproval of the student's responses.
- Do not attempt to determine the correct answer to a question while signing, as this may result in pauses or changes in inflection that may mislead the student or suggest the correct answer.
- Be careful to give equal emphasis to each answer option. If the student chooses an answer before all the answer options have been signed, ask, "Do you want the other answer options signed?" before continuing.

SCRIPT FOR USE WITH THE ONLINE SCIENCE STUDENT READINESS TOOL

Say the following before you begin reading the questions in the script below:

After I read each question, I will pause for as much time as you need to answer the question. Then I will read the next question. You may ask me to repeat any questions as many times as you need.

HIGH SCHOOL SCIENCE SCRIPT FOR USE WITH ONLINE STUDENT READINESS TOOL

Bar Graph

Try It!

Select and drag each bar on the Bar Graph below to match the "Example" bar.

The bar graph is titled: Practice. The horizontal axis is labeled: Category. The vertical axis is labeled: Axis. The horizontal axis reads, from left to right: Example, Bar one (1), Bar two (2), Bar three (3).

Select the Blue arrow at the top to go on.

Drag and Drop:

Try It!

Follow the directions in the question below, then select your answers.

Drag and drop each number into the correct box.

The answer options are labeled, from left to right: One, Two, Three, Four. The boxes are labeled, from left to right: Even Numbers, Odd Numbers.

Select the Blue arrow at the top to go on.

Scene:

To build and launch a water bottle rocket, select a bottle below. Select the amount of water in milliliters (m L) you want to add and the pressure of air in kilopascals (k P a) you want to pump into the bottle. Then select "Run." The water bottle rocket will launch, and data will be recorded in the table. Repeat as necessary.

The column on the left reads, from top to bottom: Step one (1), Select a bottle. The bottles are labeled, from left to right: Two Liters (2 L), One Liter (1 L), One Liter (1 L), Wide. Step two (2), Add water. The box is labeled: milliliters (mL). Step three (3), Pump air. The box is labeled: kilopascals (kPa). The button on the bottom is labeled: Run. The table has six columns and three rows. The columns are labeled, from left to right: Trial, Bottle, Water (milliliters) (mL), Air (kilopascals) (kPa), Height (meters) (m), Flight Time (seconds) (sec.). The button on the bottom of the table is labeled: Clear All.

Simulation:

Try It!

For each Simulation, you will see directions on how to use the Simulation to answer the question.

Practice using the mock Simulation to the left by following the directions.

Select the Blue arrow at the top to go on.

Table Grid:

Try It!

Follow the directions in the question below, then give your answers.

Jill and José are going on field trips this year. Jill is going to the zoo and museum. José is going to the zoo and park.

Select the field trips Jill and José are going on in the table below.

The table has three columns and two rows. The columns are labeled, from left to right: Zoo, Museum, Park. The rows are labeled, from top to bottom: Jill, José.

Select the Blue arrow at the top to go on.

STOP

When the student reaches the end of the SRT, repeat any questions as requested by the student. The student may review answers online before continuing.

SCRIPT FOR USE WITH THE SCIENCE PAPER STUDENT READINESS TOOL

Say the following before you begin reading the questions in the script below:

After I read each question, I will pause for as much time as you need to answer the question. Then I will read the next question. You may ask me to repeat any questions as many times as you need.

HIGH SCHOOL SCIENCE SCRIPT FOR USE WITH THE PAPER STUDENT READINESS TOOL

For some diagram questions, you will need to circle the answer you want to choose.

For 12- and 18-point: The sample scenario below and the sample questions on the next page show you how to do this.

For 24-point: The sample scenario and sample questions show you how to do this.

Sample Questions:

Sample Scenario and Questions Answered in Test Book:

Sample Scenario:

Before this area was mined, the land looked very different.

The figure on the top is titled: Before Mining. The figure on the bottom is titled: After Mining.

Sample Question:

Mining in a forest area can have positive and negative effects. Identify two (2) possible negative effects on the environment.

Circle the two (2) effects you want to choose.

The answer options are titled: Possible Effects. The top row of answer options is labeled, from left to right: Discover source of groundwater, Decreases natural habitat. The bottom row of answer options is labeled, from left to right: Pollution produced by machines, Find needed resources.

Sample Question:

Natural resources are often used to supply energy to peoples' homes. Identify resources that are a source of nonrenewable energy.

Circle each resource you want to choose.

Coal, Water, Oil, Wind, Solar.

Practice Question:

Practice

Practice answering this diagram question by circling Moon and Earth.

Scenario:

Satellites are natural or artificial objects that orbit a planet or star. The Moon and Earth are both natural satellites. For thousands of years, humans have used natural satellites and stars to determine the time of day and predict the change of the seasons.

Question number one (1):

Satellites move in regular, predictable patterns. Identify two (2) natural satellites.

Circle two (2) natural satellites you want to choose.

Moon, Stars, Meteors, Earth.

For some diagram questions, you will need to write the label letters (such as A, B, C) in the boxes.

For 12- and 18-point: The sample scenario below and the sample question on the next page show you how to do this.

For 24-point: The sample scenario and sample question show you how to do this.

Sample Question:

Sample Scenario and Question Answered in Test Book:

Sample Scenario:

Unlike most kinds of bacteria, cyanobacteria contain chlorophyll and perform photosynthesis. Because they contain chlorophyll, most cyanobacteria are green.

The diagram is labeled: Cyanobacteria.

Sample Question:

Identify three (3) objects involved in photosynthesis.

Each object is labeled A, B, C, D, E, or F. Write the letter of the correct object in each empty box in the diagram. Three of the objects will be used.

The diagram is labeled, from left to right: Energy Source, Stored Energy, Waste Product. The answer options are titled: Objects. The top row of answer options is labeled, from left to right: A., Water (H_2O) , B., Carbon dioxide (CO_2) , C., Oxygen (O_2) . The bottom row of answer options is labeled, from left to right: D., Glucose $(C_6H_{12}O_6)$, E., Sunlight, F., Heat.

Practice Question:

Practice

Practice answering this diagram question by writing letter C in the first box, letter A in the second box, and letter B in the third box.

Scenario:

Athletes who increase their V-O-two (VO_2) max, or the maximum amount of oxygen a person can consume during one minute of intense physical effort, may improve their performance during competition.

The table shows the race times for three (3) athletes before and after they trained in high altitudes.

The table is titled: Athletes' Race Times. The table has two columns and four rows. The columns are labeled, from left to right: Before Training (minutes and seconds (min.:sec.)), After Training (minutes and seconds (min.:sec.)). The rows are labeled, from top to bottom: Athlete one (1), Athlete two (2), Athlete three (3), Average.

Question number two (2):

The graph shows the improvement in race times (minutes and seconds (min.:sec.)) for each of the three (3) athletes. Complete the graph by putting labels on the x-axis.

Each label is marked A, B, or C. Write the letter of the correct label in each empty box. You may use each letter one (1) time.

The bar graph is titled: Improvement in Race Times. The vertical axis is labeled: Time (minutes and seconds (min.:sec.)). The answer options are titled: Labels. The answer options are labeled, from left to right: A., Athlete one (1), B., Athlete two (2), C., Athlete three (3).

For some graphing questions, you will need to write a plus ("+") above each bar where the top of the bar should be.

For 12- and 18-point: The sample below shows you how to do this.

For 24-point: The sample shows you how to do this.

Sample Question:

Sample Question Answered in Test Book:

Make a graph of the air temperatures inside and outside of a cave at seven (7) a.m.

The table is titled: Air Temperature. The table has two columns and one row. The columns are labeled, from left to right: Inside, Outside. The row is labeled, from left to right: Seven (7) a.m., five degrees Celsius (forty-one degrees Fahrenheit) (5° C (41° F)), negative two degrees Celsius (twenty-eight degrees Fahrenheit) (-2° C (28° F)).

Write a plus ("+") above each bar where the top of the bar should be.

The bar graph is titled: Air Temperature at seven (7) a.m. The horizontal axis is labeled: Location. The vertical axis is labeled: Temperature (degrees Celsius (°C)). The horizontal axis reads, from left to right: Inside the cave, Outside the cave.

Practice Question:

Practice

Practice answering this graphing question by writing a plus ("+") above "Inside the cave" at thirteen degrees Celsius (13°C) and a plus ("+") above "Outside the cave" at eighteen degrees Celsius (18°C) .

Question number three (3):

Make a graph of the air temperatures inside and outside of a cave at six (6) p.m.

The table is titled: Air Temperature. The table has two columns and one row. The columns are labeled, from left to right: Inside, Outside. The row is labeled, from left to right: Six (6) p.m., thirteen degrees Celsius (fifty-five degrees Fahrenheit) (13°C (55°F)), eighteen degrees Celsius (sixty-five degrees Fahrenheit) (18°C (65°F)).

Write a plus ("+") above each bar where the top of the bar should be.

The bar graph is titled: Air Temperature at six (6) p.m. The horizontal axis is labeled: Location. The vertical axis is labeled: Temperature (degrees Celsius (°C)). The horizontal axis reads, from left to right: Inside the cave, Outside the cave.

For multiple-choice questions, circle the answer in your test book. The sample below shows you how to do this.

Sample Question:

Sample Question Answered in Test Book:

Which of the following is a renewable resource?

Choose one of the following answers. (Read answers aloud.)

- A. Wind
- B. Coal
- C. Natural Gas
- D. Oil

Practice Question:

Practice

Practice answering this multiple-choice question by circling option C.

Question number four (4):

What happens when water evaporates?

Choose one of the following answers. (Read answers aloud.)

- A. The water gets hotter.
- B. The water changes color.
- C. The water turns into a gas.
- D. The water turns into a solid.

STOP

When the student reaches the end of the SRT, repeat any questions as requested by the student. The student may review answers before finishing the SRT.