

Information for School Administrators

General Information

All school personnel who will be involved in the administration and scoring of the Grade 4 Elementary-Level Science Test should have a copy of, and be familiar with, the information in this manual. The manual may be photocopied by the school, as needed. In addition, please check the [Office of State Assessment's \(OSA's\) website](http://www.nysed.gov/state-assessment) (<http://www.nysed.gov/state-assessment>) for possible updates. Schools may submit questions concerning the administration of the Grade 4 Elementary-Level Science Test via email to OSA at emscassessinfo@nysed.gov.

Pursuant to Section 102.3 of the Regulations of the Commissioner of Education, "Building principals are responsible for administering department examinations and maintaining the integrity of examination content and programs, in accordance with directions and procedures established by the commissioner."

Test Forms

Written Test: The Written Test booklet has two parts and must be administered in one sitting. Part I contains multiple-choice questions, and Part II contains open-ended questions. The test is not timed. Most students will complete the Written Test in approximately 45–60 minutes of working time. In addition, the test administrator will need approximately 15 minutes to give directions to students. As long as they are working productively, students should be allowed as much time as they need only **within the confines of the regular school day** to complete the Written Test. Schools are not expected to extend the school day in order for students to complete the Written Test. In addition, schools may not extend the Written Test beyond its scheduled day, unless the student has multiple-day testing as a specified testing accommodation in their Individualized Education Program (IEP) or Section 504 Accommodation Plan (504 Plan). Each year, the Department will provide a new form of the Written Test. All schools must use an answer sheet developed by a Regional Information Center (RIC) or large-city scanning center. Students must use this answer sheet to record their responses to the multiple-choice questions. Students write their answers to the questions in Part II of the test in the test booklet.

Performance Test, Form A: The Performance Test consists of tasks at three stations and must be administered in one sitting. Each station requires 15 minutes of testing time, for a total testing time of 45 minutes. Additional time is needed to provide instructions to students and for students to move between stations. Allot at least 75 minutes for administration of the Performance Test. The Performance Test is hand scorable, only. Students write their answers to the questions on the Performance Test in the test booklet.

Scanning of Machine-Scorable Answer Sheets

It is the school's responsibility to make the necessary arrangements for scoring the test and reporting data to the Student Information Repository System (SIRS). All schools, public, religious, independent, and charter, must contract with a RIC or large-city scanning center for answer sheets, scanning, and reporting services. The school must send answer sheets to the RIC/large-city scanning center after the rating of the Written Test Part II and the Performance Test are completed.

Some schools will have two separate answer sheets, one for the Performance Test and one for the Written Test. If this is the case, both must be sent to the RIC/large-city scanning center if that is part of their arrangement. Schools may not require students to record their responses for the same multiple-choice questions on more than one answer sheet.

Reporting Test Results

Data for all schools must be reported through the SIRS. For more information about reporting results, school administrators should contact their local RIC or their large-city scanning center. **Schools must not send completed answer sheets to the Department.**

Administration Schedule

The Grade 4 Elementary-Level Science Performance Test must be administered between Tuesday, May 24 and Friday, June 3, 2022. The specific dates when the test is administered are a local decision. The Written Test must be administered on Monday, June 6, 2022. Students who are absent on the administration dates must be tested when they return to school, but no later than Friday, June 3, 2022, for the Performance Test and no later than Friday, June 10, 2022, for the Written Test. Results for all students must be included on the reports submitted to the Department. Answer sheets for all students must be submitted to the scanning center by Thursday, June 16, 2022.

Students to Be Tested

Except as noted below, all public and charter school students in Grades 3–8 must take all State assessments administered for their grade level. This includes students who have been retained in these grades. The birth dates of ungraded students with disabilities should be used to determine who must be tested and which grade-level test they will take (see Appendix VI). Religious and independent schools are also encouraged to participate and are to follow the same guidelines for each grade-level test that they are administering. When determining which students will participate in these tests, be sure to consider students who attend programs operated by the Boards of Cooperative Educational Services (BOCES), as well as any other programs located outside of the district.

- *Students with Disabilities:* The Committee on Special Education (CSE) must decide for each student, on a case-by-case basis, whether the student will participate in the general State assessment or in the New York State Alternate Assessment (NYSAA) for students with severe disabilities. The CSE's decision must be documented on the student's IEP. The [criteria](#) that the CSE must use to determine eligibility for the NYSAA are available on the Department's website. The Grade 4 Elementary-Level Science Test answer sheets for students participating in the NYSAA should be coded as eligible for the Alternate Assessment.
- *Medically Excused:* A student may be medically excused from testing if documentation from a medical practitioner is obtained and kept on file at the school, indicating that the student is too incapacitated to test at the school, at home, or in a medical setting. When reporting assessment data to the Department for a student who is medically excused, the principal must report the student's results with an Assessment Standard Achievement Code of "93" in SIRS.

All English Language Learners in Grade 4 must take the Grade 4 Elementary-Level Science Test. This test is available in Arabic, Bengali, Chinese (Simplified), Chinese (Traditional), Haitian Creole, Korean, Russian, and Spanish. Information about administering these translated editions is included on page 15 under "Test Materials." The test can be translated orally into other languages, for those English Language Learners whose first language is one for which a written translation is not available from the Department. All translations of the 2022 Grade 4 Science Test must be oral, direct translations of the English editions when there is no translated edition provided by the Department. Written translations are not allowed. Schools are permitted to offer English Language Learners specific testing accommodations when taking State tests to ensure valid and reliable test results (see page 5).

Testing Accommodations

Students Who Incur Disabilities Shortly Before Test Administration

Principals may provide accommodations when testing general education students who incur an injury (e.g., broken arm) or experience the onset of either a short- or long-term disability (either cognitive or physical) within 30 days prior to test administration. Eligibility for such accommodations is based on the principal's professional judgment. In making such a determination, the principal may confer with CSE/504 Multi-Disciplinary Team members, the school physician, or other school personnel. These accommodations are limited to the following:

- extending the time limit for a test
- administering the test in a special location

Detailed Directions for Administering the Performance Test

Note: Make sure that the Test Administrator’s Record Sheet (Appendix III) was completed when the stations were set up. This information is *very important*. It will be used to determine the range of correct answers by the teachers rating the test.

Make sure that sufficient quantities of all test materials are on hand. The following materials are needed:

For each student:

- test booklet (Form A)
- pencil

The appropriate test booklet should be placed at each station.

For the test administrator:

- detailed directions for administering the Performance Test (pages 32–36 of this manual)
- Test Administrator’s Record Sheet (Appendix III)

Several groups with three different stations are set up in the testing room. Each of the three stations contains different tasks. The stations are numbered from 1 to 3. Each student will rotate through all three of these stations. Students will have 15 minutes to complete the tasks at each station. Check each station before the students are admitted to the testing room to determine that each station has the required materials and that they are properly arranged (see diagram on page 24).

Place a blank test booklet and a sharpened pencil at each station *before* each new class enters the room. Recheck each station *before* each new class enters the testing room to assure that *all* materials are available and are in order.

Before the test session begins, write a sample heading on the chalkboard. The information should include the student’s name, school name, city, teacher’s name, and today’s date.

You must use an accurate timing device, such as a stopwatch or a clock with a sweep-second hand, to accurately provide time splits of 10, 13, and 15 minutes. Note the start time and intervals on a piece of paper, the chalkboard, or in this administration manual. The table below provides a sample of the information that will be needed for *each session*. A blank table is provided on page 35.

	ACTUAL TIME		
Time	First Station	Second Station	Third Station
Start	9:00	9:25	9:50
+10 minutes	9:10	9:35	10:00
+13 minutes	9:13	9:38	10:03
+15 minutes	9:15	9:40	10:05

Students should have an opportunity to visit the restrooms and wash their hands just before the testing period.

Students should be assigned to the stations as they enter the room, filling the seats in an orderly fashion so that all stations in a group are full. Have the first three students take seats at the group of stations farthest from the door, the next three students at the next group, etc.

Instruct students **not** to open the test booklet or touch the equipment until they are told to do so.

At the beginning of each test session, proctors must read the following statement to all students taking State tests:

You cannot have any communications device, including a cell phone, with you during this test or during any breaks (such as a restroom visit). Such devices include, but are not limited to:

- Cell phones
- iPods and MP3 players
- iPads, tablets, and other eReaders
- Personal laptops, notebooks, or any other computing devices
- Cameras or other photographic equipment, and personal scanning devices
- Wearable devices/smart wearables, including smart watches and health wearables with a display
- Headphones, headsets, or in-ear headphones, such as earbuds
- Any other device capable of recording audio, photographic, or video content, or capable of viewing or playing back such content, or sending/receiving text, audio, or video messages

If you brought any of these items to the building today, and have not already stored it in your locker or turned it over to me, a test monitor, or a school official, you must give it to me now. You may not keep your cell phone or any of these items with you, or near you, including in your pockets, backpack, desk, etc. If you keep a cell phone or any of these items with you, your examination will be invalidated and you will get no score. Is there anyone who needs to give me any of these items now? [*Proctor: repeat list of devices.*]

This is your last opportunity to do so before the test begins.

When students are at their first station and ready to work, read the following information to them. This direction-reading stage is **not** to be counted as part of the 15 minutes for completing the first station. Say:

Good morning [afternoon]. Today, you will be taking a science skills test. I think you will enjoy it because you will get to use science equipment to help you answer the questions on the test. Please listen carefully, follow directions closely, and do your best work.

You should have a test booklet and a pencil at your station. If you don't, raise your hand. *(Pause.)*

Now, on your test booklet, print your first and last name. *(Pause.)* Print the name of your school, your city, your teacher's name, and today's date. I have put that information on the chalkboard. *(Pause for students to finish.)*

Keep this test booklet with you throughout the test. It will be collected at the end of the test. Read the directions on the cover silently to yourself while I read them aloud.

Your booklet contains three science performance tasks. At each station you will have 15 minutes to finish your work. Continue working at each station until you see the word **STOP!** at the bottom of the page or until the time is up. Please wait quietly and patiently if you finish before the time is up. **Please leave the station the way you found it.**

Do **not** help other students or ask others to help you. There must be no talking between students during this test.

Read the directions for each station carefully. All of your answers must be written in this test booklet. You will be given directions on how and when to move to the other stations. Please listen carefully to all of the directions.

Do **not** go on to the next page until you are told to do so.

Do **not** try to explain at this time how the students will be moving from station to station. Leave that information until after the completion of the first task.

The directions that follow will be repeated three times during the testing session.

START HERE when reading directions for the second and third stations.

Say:

At the bottom left edge of your table, there is a Station Diagram with the name and station number where you will be working. Open your test booklet and find that station number.

Look around to be sure that everyone has found their place. Say:

Now, read the directions for that station number in the box at the top of the page in your test booklet. *(Pause for 15 seconds.)* Then check that all of the materials are at your station. Use the Station Diagram to make sure that your equipment is set up correctly. Be sure that you have all the equipment. *(Pause for about 1 minute.)* If anyone is missing equipment, raise your hand. *(Pause.)* At Station 2, check to be sure that the electrical tester works. If the electrical tester does not work, raise your hand. *(Pause.)*

Once all of the students complete their equipment check, say:

You may begin work.

Begin timing the 15 minutes now. **Complete the table below for each session.** You will need to make additional copies if you are testing students in more than one session.

	ACTUAL TIME		
Time	First Station	Second Station	Third Station
Start			
+10 minutes			
+13 minutes			
+15 minutes			

Most student questions should be answered with “Read it again,” “Sound out the word,” or “Do your best.” If students are not sure about the names of specific objects or equipment, you may refer them to the Station Diagram. All materials are labeled and clearly identified on these diagrams.

Do **not** give students assistance on how to conduct the procedure. You should **not** acknowledge that the student is engaged in a correct or an incorrect process. No one, under any circumstances, may interpret or explain test questions to students, nor may anyone review or comment on the answer paper of a student while this test is in progress. Exceptions to this would be safety concerns (short circuiting the electrical tester, a student putting an object in their mouth, etc.), lost or broken equipment, or specific provisions in a student’s IEP for allowable testing accommodations.

Station 3 — Ball and Ramp: While at this station, the students will raise their hands to get a Ping-Pong ball from the test administrator.

After 10 minutes, say:

You have 5 minutes left. Continue working until you see the word **STOP!**

After 13 minutes, say:

You have 2 minutes left. Continue working until you see the word **STOP!**

After 15 minutes, say:

Stop work. Please put everything back the way it is shown on the Station Diagram.

At Station 1, pour the water from the beaker back into the large cup and place the rock on the paper towel.

At Station 2, make sure all the objects are placed back in the bag and the bar magnet is left outside of the bag.

At Station 3, raise your hand to return the Ping-Pong ball.

Collect all the Ping-Pong balls from the students at Station 3. Before the students rotate within groups, make sure that the equipment at all stations is placed correctly so that it corresponds with the station diagrams.

Then say:

You are now going to move to the next station. I will show you how it is done.
Be sure to take your test booklet and pencil with you.

Because stations have been arranged in groups, student movement can be kept to a minimum. It is recommended that the test administrator take one group and demonstrate for the whole class how students will move to the next station. Then let each group rotate one at a time and provide help when necessary. When all the students have moved, repeat the directions beginning on page 35 until the testing session is complete.

When the students have completed ALL THREE STATIONS, say:

The science skills test is over. Thank you for being so attentive and cooperative during the test. Please wait quietly until you are dismissed.

Be sure to collect a test booklet and pencil from each student before the students leave the testing room. Return all unused test booklets and materials to the secure locations designated by your school administrator until such time as they are returned to the Department according to the instructions on page 13 of this manual.

Rating the Performance Test

Note: Teachers are **not** permitted to score their own students' answer papers.

The entire Performance Test will require rating by elementary-level teachers. It is estimated that a team of three teachers should be able to rate the responses to all three stations for about 30 students in one hour. This scoring can be most quickly accomplished if one teacher rates all students' responses to Station 1 while another rates all students' responses to Station 2 and a third rates all students' responses to Station 3.

A team of at least two teachers should rate the Grade 4 Elementary-Level Science Performance Test. School administrators determine who may rate the Grade 4 Elementary-Level Science Performance Test upon review of teachers' certification and current and past teaching assignments.

The Rating Guide for the Performance Test, Form A, gives detailed directions for rating the Performance Test and specific criteria for rating each item. It is printed on yellow paper and was included in the shipment of test materials from the Department. In rating the students' test booklets, each rater should follow the procedures in the rating guide. The rating should be completed as soon as possible after the administration of the Performance Test and no later than June 16, 2022, the final date by which answer sheets must be submitted to the scanning center.

Organizing the Rating Process

The following is a suggested procedure for managing the mechanics of the rating process.

1. Designate one person as the coordinator of the rating process. The coordinator may be appointed at either the building or the district level. The coordinator will be responsible for training and supervising raters and may rate some of the students' responses.
2. Set aside one room as a central rating room for collecting, sorting, circulating, and storing test booklets and for preparing and maintaining records.
3. Provide adequate time for rating during the school day.
4. Make sure that each rater receives approximately the same number of student booklets, taking care to ensure that no teacher is assigned to rate the test booklets of their own students.
5. Provide a copy of the completed Test Administrator's Record Sheet (Appendix III) to each rater.
6. At least two teachers, and preferably three, should participate in rating the questions on the Performance Test. Each should be responsible for rating all of the questions for one station. No one teacher is to score all the open-ended questions in a student's test booklet.
7. Prior to the rating of the students' answers to the Performance Test, allow time to provide training for all raters (even if they have received prior training). Please select, at random, 10–15 student test booklets and duplicate them for use as a "warm-up" exercise with the raters for discussion of the questions, the criteria, and the rating of each item. During the training exercise, after three or four complete student test booklets have been rated, ask the raters to indicate, by a show of hands, how many credits they gave each answer. If there is some disagreement about the number of credits to be awarded for an answer, ask raters who gave different credits to an answer to explain their rating by citing specific criteria from the rating guide.
8. Raters should have a set of stations available to check the accuracy of questionable student answers by actually performing the task for which the answer was given.

Note: It is recommended that schools do **not** record the students' Performance Test scores on their scannable answer sheets until after the students have taken the Written Test and completed their portion of the answer sheet. This way, students will not be distracted by seeing their Performance Test scores on the answer sheets. This will also prevent students from altering those scores.

Finality of Teacher Scoring Committee's Scores

When the teacher scoring committee completes the scoring process, test scores must be considered final and must be entered onto students' permanent records. In addition, each rater must sign the *Test Scoring Certificate* to attest that the rater fully and faithfully observed the regulations for scoring the tests. The principal must also sign this certificate to attest that the rules and regulations for scoring were fully and faithfully observed.

Principals and other administrative staff in a school or district do not have the authority to set aside the scores arrived at by the teacher scoring committee and rescore student test papers or to change any scores assigned through the procedures described in this manual and in the scoring materials provided by the Department. Any principal or administrator found to have done so, except in the circumstances described below, will be in violation of Department policy regarding the scoring of this test. Teachers and administrators who violate Department policy with respect to scoring State tests may be subject to disciplinary action in accordance with Sections 3020 and 3020-a of Education Law or to action against their certification pursuant to Part 83 of the Regulations of the Commissioner of Education.

On rare occasions, an administrator may learn that an error had occurred in the calculation of a final test score for a student or in recording the student's score in the permanent records. For example, the final test score may have been based on an incorrect summing of the student's raw scores for parts of the test or from a misreading of the conversion chart. When such errors involve the final scores on any State test of no more than 5% of the school's test takers for that test or five students, whichever is greater, and when such errors are detected within four months of the test date, the superintendent of a public school district or the chief administrative officer of a religious or independent school may arrange for the corrected score to be recorded in the student's permanent record. However, in all such occurrences, the superintendent or chief administrative officer must advise OSA in writing that the student's score has been corrected. The written notification to the Department must be signed by the superintendent or chief administrative officer and must include the initials or student identification numbers (at the discretion of the principal) of the students whose scores have been corrected, the name of the test, the students' original and corrected scores, and a brief explanation of the nature of the scoring error that was corrected.

If an administrator has substantial reason to believe that the teacher scoring committee has failed to accurately score more than 5% or five student answer papers, whichever is greater, on any test or when such errors are detected more than four months after the test date, the administrator must first obtain permission in writing from OSA before arranging for or permitting a rescoring of student papers. The written request to OSA must come from the superintendent of a public school district or the chief administrative officer of a religious or independent school and must include the test title, date of administration, and number of students whose papers would be subject to such rescoring. This request must also include a statement explaining why the administrator believes that the teacher scoring committee failed to score appropriately and, thus, why the administrator believes that rescoring the test papers is necessary. As part of this submission, the school administrator must make clear their understanding that such extraordinary re-rating may be carried out only by a full committee of teachers constituted in accordance with the scoring guidelines presented in this manual and fully utilizing the scoring materials for this test provided by the Department.

The Department sometimes finds it necessary to notify schools of a revision to the scoring key and rating guide for a test. Should this occur after the scoring committee has completed its work, the principal is authorized to have appropriate members of the scoring committee review students' responses only to the specific question(s) referenced in the notification and to adjust students' final test scores when appropriate. Only in such circumstances is the school not required to notify or obtain approval from the Department to correct students' final test scores.

Reporting Irregularities and/or Misadministrations

Pursuant to Section 102.3 of the Regulations of the Commissioner of Education, “Building principals are responsible for administering department examinations and maintaining the integrity of examination content and programs, in accordance with directions and procedures established by the commissioner.” Accordingly, the building principal is responsible for all aspects of the school’s test administration and must take appropriate measures both to prevent, as much as possible, and to investigate all security breaches and irregularities associated with the administration and scoring of the test. In addition, the principal must report the following testing irregularities and misconduct by students, in writing on school letterhead and signed by the principal, to OSA via fax to 518-474-1989 or by email to emscassessinfo@nysed.gov:

- All student infractions of the Department’s policy prohibiting the possession or use of cell phones and other communications devices during State tests.
- All confirmed cases of students cheating.
- All interruptions of test sessions, including those caused by power outages or fire alarms.
- All instances in which a State test is administered without Department authorization on a date outside of the published statewide administration or makeup schedule.
- All instances in which scorers do not rate State tests in accordance with the scoring materials provided by the Department.
- All cases in which student test books or answer sheets are lost prior to either the scoring of the tests or submission of the answer sheets to the RIC or large-city scanning center.
- All instances of school officials or staff members providing students with unauthorized/inappropriate testing accommodations or tools.
- All instances of school officials or staff members providing students with other nonstandard test administrations, unrelated to cheating.

The report, signed by the principal, must include:

- The school’s Basic Educational Data System (BEDS) Code,
- The school’s name,
- The name and grade of the test,
- A brief description of the incident,
- The number of students affected,
- The New York State Student Identification System (NYSSIS) ID numbers of affected students, and
- The principal’s determination as to whether the incident constitutes a misadministration.

Mandatory Reporting of Testing Improprieties by Adults

The Department’s Office of School Personnel Review and Accountability (OSPRA) handles all reports of testing improprieties by adults involved in the administration and scoring of State tests. School officials and personnel are required to report any incident of testing misconduct by an educator or other adult involved in testing. Reports should be made via the [OSPRA website \(http://www.nysed.gov/educator-integrity\)](http://www.nysed.gov/educator-integrity) by submitting the incident report form located on the main page under the tab “Report Educator Test Fraud.”

No adverse action, including dismissal and any disciplinary action, may be taken against an employee who files a mandatory report of testing misconduct, because the employee filed a report. Anyone who takes such unwarranted adverse action against another employee may face disciplinary action by the Department.

Examples of Improper Testing Conduct Reported to the OSPRA

- All suspected or confirmed cases of a school official or staff member giving aid or impromptu lessons on specific test content to students immediately before or during a State test or altering student responses on a test paper.
- All cases in which a school official does not adhere to the Department policy concerning the finality of test scores as determined by the teacher scoring committees. This policy is explained on page 38 of this manual under the heading “Finality of Teacher Scoring Committee’s Scores.”
- All instances of an administrator or teacher instructing another administrator or teacher to alter or interfere with a student’s test score.

Coding of Invalid Tests

Any breaches or irregularities described on the previous page, except interruptions caused by power outages or alarms, may be determined by the school or by the Department to invalidate a student’s test results. In cases where a student’s test has been invalidated, the principal must:

1. Darken the circle on the affected student’s answer sheet denoting “administrative error.”
2. Notify the RIC or large-city scanning center of the administrative error. In order to expedite accurate reporting, provide the BEDS Code, School Name, Subject, Grade, and NYSSIS IDs.
3. In the Student Information Repository System (SIRS), in the Assessment Standard Achieved Code field, students must be coded as “administrative error with Standard Achieved Code of 97.” Please work with your RIC or Large-City Scanning Center to make sure these students are reported properly in SIRS.
4. On the verification reports, a student for whom an administrative error occurred will not receive a valid score and will appear as “not tested.”
5. If a student’s test is deemed to be an administrative error **after** the student’s answer sheet has been scanned, the scanning center must be contacted and asked to submit a request to the Department’s Office of Information and Reporting Services for permission to override the score to an Assessment Standard Achieved Code of “97” indicating administrative error.

Circumstances that Should Not Be Reported as Administrative Error

If a scanning center sends an answer sheet that contains inaccurate demographic data, do not darken the circle denoting an administrative error on the answer sheet. Instead, communicate the problem to the scanning center, go back into the student management system (SMS), correct the demographic data, and reload it into SIRS. If the student uses a blank/extra answer sheet in place of the preprinted answer sheet with incorrect demographic data, do not code the original answer sheet as an administrative error. Instead, communicate the problem to the scanning center, but do not submit the incorrect answer sheet for processing.

If a scanning center sends an answer sheet to the school for a student who is no longer enrolled in that school, do not code the answer sheet as an administrative error. Instead, communicate the problem to the scanning center and go back into the SMS to correct the enrollment record to reflect the ending enrollment and reload it into the SIRS.

Students originally reported with an incorrect grade level should not be reported as administrative error as long as the student is administered the correct grade-level test using a blank answer sheet for the appropriate grade-level test. Do not submit the incorrect answer sheet to the scanning center. Instead, communicate the problem to the scanning center, correct the student information in the SMS, and reload the updated demographic information into SIRS.

Schools should communicate any concerns or questions to the RIC or large-city scanning center prior to, or at the time of, delivery of the answer sheets.

Appendix I

Materials Needed to Administer the Performance Test, Form A

The Department will provide the test booklets, rating guides, and other printed administration materials. Schools are responsible for obtaining the materials needed for the performance tasks. Schools can either prepare these materials or purchase the materials in a complete kit from one of several suppliers. A list of approved suppliers is provided in Appendix VII. A list of materials that will be needed for *one* setup for each of the three stations appears below.

Station 1 — Measuring Objects and Liquids

Materials needed for *one* station:

- 1 equal-arm balance
- 1 set of gram masses (mixture of two 20-g, three 10-g, four 5-g, and ten 1-g for a total of 100 g)
- 3 clear plastic jars, approximately 125-mL capacity
- 2 screw tops to fit jars
- 1 large plastic cup, approximately 300-mL capacity containing about 150 mL of water
- 1 measuring container (beaker), 100-mL capacity with clearly marked gradations
- 1 rough-cut rock (about 1" cube) that will fit easily into the beaker and sink completely in the water without causing the water to overflow
- 1 resealable plastic bag, large enough to hold the set of gram masses
- 1 ruler with units for metric (30 cm) and for standard (12 inches) measurement, neither with indented zero points
- 2–3 paper towels
- Station Diagram for Station 1

Teacher materials:

- 1 black, permanent, fine-line marker
- supply of water for 10 Station 1 setups
- medicine cup or other tool to measure 25 mL of water as accurately as possible

Station 2 — Electrical and Magnetic Testing

Materials needed for *one* station:

- electrical tester:
 - 1.5-volt “D” cell battery
 - 1.5-volt bulb and bulb holder
 - battery holder (plastic or metal recommended)
 - 3 insulated wires with clips
 - bar magnet (approximately 1.5 cm x 7 cm)
 - resealable plastic bag containing eight objects and labeled “Test Objects”
 - penny
- (**Note:** Penny must be new and shiny. Oxidized pennies will not conduct electricity.)

- rubber band (at least 1/4 inch wide)

Station 2 (continued)

- paper clip (all metal)
- plastic spoon (small)
- nickel (United States five cents)
- wooden stick (like Popsicle stick or tongue depressor)
- aluminum foil (heavy duty, about 5-cm square)
- colored ceramic disk (magnetic)

(**Note:** Ceramic materials are nonmetallic, even if they are magnetic.)

- Station Diagram for Station 2

Teacher materials:

- 1 black, permanent, fine-line marker
- extra batteries and bulbs for the electrical testers

Station 3 — Ball and Ramp

Materials needed for *one* station:

- Wood block (preferably a cube) to serve as the ramp support (total height: 5–6 cm)
- 1 ruler, 30-cm plastic without an indented zero mark and with a grooved center that can accommodate a golf ball
- 1 transparent, round, plastic deli container about 12-cm diameter, 1 pint in volume, and approximately 15 grams in mass
- 1 golf ball in a resealable, clear plastic bag labeled “Golf Ball”
- 1 Ping-Pong ball in a resealable, clear plastic bag labeled “Ping-Pong Ball” (Do *not* put the Ping-Pong ball at the station.)
- 1 Ball and Ramp Place Mat (see Appendix IV for template)
- Station Diagram for Station 3

Teacher materials:

- 1 black, permanent, fine-line marker
- 1 pair of scissors or craft knife
- 1 roll of double-sided carpet tape or duct tape
- 1 set of self-adhesive colored dots for the top of the containers (one dot for each container)
- 1 roll of masking tape

Appendix II

Comparison of Possible Performance Test Sites

SITE: CLASSROOM	
<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none"> ▪ Ease of station preparation ▪ Furniture already at site ▪ Good station-to-station movement ▪ Only classroom teacher and students will be disrupted ▪ Secure location 	<ul style="list-style-type: none"> ▪ Need to relocate the teacher and students whose room is being used for the duration of the testing ▪ Individual student desks may be too narrow for the ball and ramp station unless they are at least 36 inches wide
SITE: LIBRARY	
<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none"> ▪ Large space ▪ Tables and chairs at site ▪ Secure location 	<ul style="list-style-type: none"> ▪ May disrupt more teachers and students than classroom site ▪ Library unavailable for other uses during testing
SITE: CAFETERIA	
<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none"> ▪ Large space ▪ Tables and chairs at site 	<ul style="list-style-type: none"> ▪ May disrupt a large number of teachers and students ▪ Unavailable for other uses during testing ▪ Poor security ▪ Breakfast/lunch program may interrupt the testing ▪ Poor acoustics and high noise levels ▪ May need to disassemble and reassemble stations before and after lunch
SITE: SCIENCE ROOM	
<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none"> ▪ Large space ▪ Tables and chairs at site ▪ Secure location ▪ Science materials on site 	<ul style="list-style-type: none"> ▪ May disrupt more teachers and students than classroom site
SITE: GYMNASIUM	
<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none"> ▪ Large space 	<ul style="list-style-type: none"> ▪ May disrupt large numbers of teachers and students ▪ Need to move tables or desks and chairs into space ▪ Poor security ▪ Poor acoustics ▪ Not a familiar testing site for students ▪ May need to disassemble and reassemble stations to accommodate physical education classes

Appendix III

Test Administrator's Record Sheet Grade 4 Elementary-Level Science Performance Test, Form A

This record sheet should be completed by the person(s) administering the Performance Test. At the conclusion of the test administration, return this completed record sheet with the student test booklets to the person in charge of the testing program for the school. This record sheet is very important because it will be used to determine the range of correct answers by the teachers rating the test. It should be kept with the test booklets.

Test Administrator(s) _____ Date _____

School _____ School District _____

Station 1 — Measuring Objects and Liquids

Complete the measurements and calculate acceptable ranges in the table below according to the directions for each item to be measured. There will be up to ten Station 1 setups in the testing room. It is important that the directions for preparation (pages 25–26) be followed carefully so that the acceptable ranges will apply to all ten setups.

Location in Student Booklet	Item to Be Measured	Actual Measurement by Administrator during Setup	Directions for Calculating Acceptable Range	Acceptable Range for Student Responses
1a	Jar 1 inside width	_____ cm (to the nearest 0.1 cm)	± 0.5 cm For example, the acceptable range for a measurement of 5.2 cm is 4.7– 5.7 cm.	_____ to _____ cm
1b	Jar 1 inside height	_____ in (to the nearest 1/8 inch)	$\pm \frac{1}{4}$ in For example, the acceptable range for a measurement of $2 \frac{5}{8}$ inches is $2 \frac{3}{8}$ – $2 \frac{7}{8}$ inches; the acceptable range for a measurement of $2 \frac{1}{2}$ inches is $2 \frac{1}{4}$ – $2 \frac{3}{4}$ in.	_____ to _____ in
2	Volume of water to line on Jar 1 (must be 65 mL)	_____ mL	The acceptable range is the 10-mL interval on the beaker in which the actual measurement falls. For example, the acceptable range for a measurement of 63 mL is 60–70 mL. Note: Do <i>not</i> use ± 5 mL as the acceptable range. The gradations on the beaker do not allow this much precision.	_____ to _____ mL
4a	Mass of Jar 2 with cover and water	_____ g	± 3 g	_____ to _____ g
4b	Mass of Jar 3 with cover (empty jar)	_____ g	± 3 g	_____ to _____ g

Test Administrator's Record Sheet
Grade 4 Elementary-Level Science Performance Test, Form A (page 2)

Note: If any materials used during the test administration were different from those specified in Appendix I or if the administration directions were not followed exactly as written, note these differences below. Be specific. These variations can be important when scoring the students' test booklets.

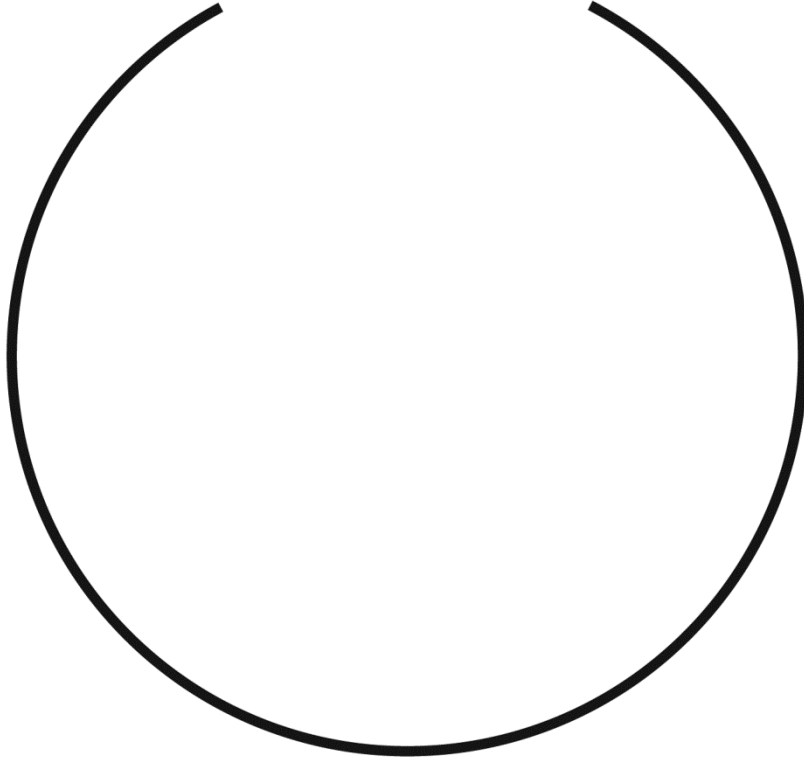
Appendix IV

Station 3—Ball and Ramp Place Mat

The place mat on page 49 should be reproduced on 8½" x 11" paper and laminated. In most cases, these place mats will be supplied in the performance test kits.

End of Ruler Placement ————— End of Ruler Placement

Starting Circle



Ramp Place Mat

Finish Line



Appendix V

Test Storage Certificate

Deputy and Proctor Certificate

Test Scoring Certificate

The University of the State of New York
THE STATE EDUCATION DEPARTMENT
Office of State Assessment
Albany, New York 12234

TEST STORAGE CERTIFICATE
Grade 4 Elementary-Level Science Test

School Name: _____ Performance Test

Test Date: _____ Written Test
(Month/Year)

I, the undersigned principal of the school named above, do hereby declare that each of the security procedures listed below was fully and faithfully observed for the current administration of the Grade 4 Elementary-Level Science Test.

1. The shrink-wrapped packages of secure test materials were stored in the secure location indicated on the Test Storage Plan submitted to the Department for the above test date period.
2. The secure location was maintained under strict security conditions.
3. An inventory of the test materials was conducted as soon after delivery as was practical. The Department was notified in writing if any of the packages of secure test materials were not properly shrink-wrapped when received. The shrink-wrapped packages of secure test materials were replaced inside the secure location immediately after the inventory was completed.
4. The shrink-wrapped packages of secure materials were not removed from the secure location, except for the inventory of test materials shipped to the school, until the day on which the test was scheduled to be administered.
5. The shrink-wrapped packages of secure test materials were not opened until the day on which the test was scheduled to be administered.
6. Following testing, test booklets and answer sheets were collected and stored in a secure location.

Name of Principal (print or type): _____

Signature of Principal: _____ Date: ____/____/____

After completion, retain in school files for one year.

The University of the State of New York
 THE STATE EDUCATION DEPARTMENT
 Office of State Assessment
 Albany, New York 12234

DEPUTY AND PROCTOR CERTIFICATE
Grade 4 Elementary-Level Science Test

School Name: _____ Performance Test

Test Date: _____ Written Test
 (Month/Year)

We, the undersigned deputies and proctors who assisted in the administration of the Grade 4 Elementary-Level Science Test, hereby declare our belief in the correctness of the following:

The rules and regulations for administering the test were fully and faithfully observed, and in particular:

1. The rules for administering the test were read to or read by each person who assisted in administering the test.
2. The test was administered within the prescribed dates.
3. The secure test materials were kept in the shrink-wrapped packages until the administration date.
4. The students were given appropriate instructions and orientation before beginning the test.
5. The students were so seated as to prevent collusion.
6. Adequate supervision was maintained throughout the administration of the test.
7. The answer papers were collected from the students immediately at the close of the test.
8. All test books and answer sheets for the test were collected and returned to the principal for storage in a secure location after testing.

	Print Name	Signature	Test Proctored	Test Room
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

(Make additional copies as necessary.)

After completion, retain in school files for one year.

The University of the State of New York
THE STATE EDUCATION DEPARTMENT
Office of State Assessment
Albany, New York 12234

TEST SCORING CERTIFICATE
Grade 4 Elementary-Level Science Test

School Name: _____ Performance Test Written Test
City or Town: _____ Test Date: _____
(Month/Year)

As one of the undersigned raters who participated in the scoring of the Grade 4 Elementary-Level Science Test (**each** participating rater **must** sign below), I hereby declare my belief in the correctness of the following statement:

The rules and guidance materials for rating the test were fully and faithfully observed, and in particular:

1. As a rater, I was trained using the procedures and materials described in the *Grade 4 Elementary-Level Science Test Manual for Administrators and Teachers*, the Rating Guide for the Written Test Part II, and the Rating Guide for the Performance Test.
2. The rating committee, of which I was a member, included the required minimum number of raters as specified in the *Grade 4 Elementary-Level Science Test Manual for Administrators and Teachers*.
3. Test questions were assigned to me for rating according to the procedures described in the *Grade 4 Elementary-Level Science Test Manual for Administrators and Teachers*.
4. As a rater, I did not rate any of my own students' responses.
5. Where required, my name or initials were clearly recorded on the answer paper or scoring record.
6. The answer papers and test booklets were safeguarded while scoring was occurring.

- | | |
|-----------|-----------|
| 1. _____ | 11. _____ |
| 2. _____ | 12. _____ |
| 3. _____ | 13. _____ |
| 4. _____ | 14. _____ |
| 5. _____ | 15. _____ |
| 6. _____ | 16. _____ |
| 7. _____ | 17. _____ |
| 8. _____ | 18. _____ |
| 9. _____ | 19. _____ |
| 10. _____ | 20. _____ |

As principal, I attest that the rules and regulations for scoring, as listed above, were fully and faithfully observed.

Principal: _____ Date: ____ / ____ / ____

After completion, retain in school files for one year.

Appendix VI

Information on Ungraded Students

Students who are graded must take the State test for the grade level in which they are enrolled. The chart below is to be used solely to ascertain the appropriate grade-level tests to administer to ungraded students with disabilities.

Age Ranges for Testing on the NYSAA and General Assessments for Ungraded Students with Disabilities at the Elementary and Middle Levels in the 2021–2022 School Year

Assessment	Birth Date	Reaches Age Given Between September 1, 2021 and August 31, 2022
Grade 3 English Language Arts, Mathematics	September 1, 2012–August 31, 2013	9
Grade 4 English Language Arts, Mathematics, Science	September 1, 2011–August 31, 2012	10
Grade 5 English Language Arts, Mathematics	September 1, 2010–August 31, 2011	11
Grade 6 English Language Arts, Mathematics	September 1, 2009–August 31, 2010	12
Grade 7 English Language Arts, Mathematics	September 1, 2008–August 31, 2009	13
Grade 8 English Language Arts, Mathematics, Science	September 1, 2007–August 31, 2008	14

Appendix VII

Suppliers for Grade 4 Elementary-Level Science Performance Test Kits

The Grade 4 Elementary-Level Performance Test, Form A, will be given during the designated administration period. This is the same performance test that has been administered since 2004. A new kit will not be needed. The suppliers below can be contacted if replacement materials or additional kits are needed.

Kathy Arminio, Director
Elementary Science Program
Monroe #2 - Orleans BOCES
38 Turner Drive
Spencerport, NY 14559
Office Phone: 585-352-1140
Customer Service: 800-832-8011
Email: karminio@monroe2boces.org
Website: www.espsciencetime.org
Fax: 845-623-3343

Dr. Charlene Jordan
Director of Professional Development
and Instructional Support
Rockland BOCES
65 Parrott Road
West Nyack, NY 10994
Office Phone: 845-627-4725
Office Fax: 845-623-3343
Email: cjordan@rboces.org

Ms. Patty Muscatello
Curriculum & Standards Alignment Project
Manager
Ward's Science
5100 West Henrietta Road
PO Box 92912
Rochester, NY 14692-9102
Office Phone: 716-515-4247
Customer Service: 800-962-2660
Email: patty.muscatello@vwr.com
Website: <http://www.wardsci.com>

Frey Scientific
80 Northwest Boulevard
Nashua, NH 03061-3000

Mr. Rod Gusman, Science Category Sales
Manager
Territory coverage – NY City, Long Island,
southern, central, & western NY counties
Cell: 908-578-5901
Email: rod.gusman@schoolspecialty.com

Mr. Jon DiVito, Science Category Sales
Manager
Territory coverage – Albany County area &
counties north
Cell: 508-868-5132
Email: jon.divito@schoolspecialty.com

Customer Service: 800-225-3739
www.freyscientific.com

Appendix VIII
Performance Levels Chart
New York State Grade 4 Elementary-Level Science Test

The chart on the next page defines the four performance levels for this test. The state-designated level of performance for this test is a final score of 65 or higher (levels 3 and 4). Students scoring below 65 (levels 1 and 2) must be provided with academic intervention services or Response to Intervention according to Section 100.2(ee) of the Regulations of the Commissioner of Education. The chart provides the final score range and a brief description of student performance for each level.

Performance Levels for Final Score
Grade 4 Elementary-Level Science Test

Level	Final Test Score Range	Description of Student Performance
4	85 – 100	<p style="text-align: center;">Meeting the Standards with Distinction</p> <ul style="list-style-type: none"> • The student demonstrates superior understanding of elementary-level science content and concepts for the learning standards and key ideas being assessed. • The student demonstrates superior elementary-level science skills related to the learning standards and key ideas being assessed. • The student demonstrates superior understanding of the science content, concepts, and skills required for an elementary-level academic environment.
3	65 – 84	<p style="text-align: center;">Meeting the Standards</p> <ul style="list-style-type: none"> • The student demonstrates understanding of elementary-level science content and concepts for the learning standards and key ideas being assessed. • The student demonstrates elementary-level science skills related to the learning standards and key ideas being assessed. • The student demonstrates understanding of the science content, concepts, and skills required for an elementary-level academic environment.
2	45 – 64	<p style="text-align: center;">Not Fully Meeting the Standards</p> <ul style="list-style-type: none"> • The student demonstrates only minimal understanding of elementary-level science content and concepts for each of the learning standards and key ideas being assessed. • The student demonstrates minimal elementary-level science skills related to the learning standards and key ideas being assessed. • The student demonstrates minimal understanding of the science content, concepts, and skills required for an elementary-level academic environment.
1	0 – 44	<p style="text-align: center;">Not Meeting the Standards</p> <ul style="list-style-type: none"> • The student is unable to demonstrate understanding of elementary-level science content and concepts for the learning standards and key ideas being assessed. • The student is unable to demonstrate elementary-level science skills related to the learning standards and key ideas being assessed. • The student is unable to demonstrate understanding of the science content, concepts, and skills required for an elementary-level academic environment.



New York State

Grade 4

Elementary-Level

Science Test

Manual for Administrators and Teachers

2022 Written Test

Performance Test, Form A