

FOR TEACHERS ONLY

The University of the State of New York
REGENTS HIGH SCHOOL EXAMINATION

PHYSICAL SETTING/EARTH SCIENCE

v202

RATING GUIDE

Directions to the Teacher:

Refer to the directions on page 2 before rating student papers.

Updated information regarding the rating of this examination may be posted on the New York State Education Department's web site during the rating period. Check this web site at: <http://www.p12.nysed.gov/assessment/> and select the link "Scoring Information" for any recently posted information regarding this examination. This site should be checked before the rating process for this examination begins and several times throughout the Regents Examination period.

Directions to the Teacher

Follow the procedures below for scoring student answer papers for the Regents Examination in Physical Setting/Earth Science. Additional information about scoring is provided in the publication *Information Booklet for Scoring Regents Examinations in the Sciences*.

Allow 1 credit for each correct response.

At least two science teachers must participate in the scoring of the Part B–2 and Part C open-ended questions on a student’s paper. Each of these teachers should be responsible for scoring a selected number of the open-ended questions on each answer paper. No one teacher is to score more than approximately one-half of the open-ended questions on a student’s answer paper. Teachers may not score their own students’ answer papers.

Students’ responses must be scored strictly according to the Rating Guide. For open-ended questions, credit may be allowed for responses other than those given in the rating guide if the response is a scientifically accurate answer to the question and demonstrates adequate knowledge as indicated by the examples in the rating guide. Do not attempt to correct the student’s work by making insertions or changes of any kind. On the student’s separate answer sheet, for each question, record the number of credits earned and the teacher’s assigned rater/scorer letter.

Fractional credit is *not* allowed. Only whole-number credit may be given for a response. If the student gives more than one answer to a question, only the first answer should be rated. Units need not be given when the wording of the questions allows such omissions.

For hand scoring, raters should enter the scores earned in the appropriate boxes printed on the separate answer sheet. Next, the rater should add these scores and enter the total in the space provided. Then the student’s raw scores on the written test should be converted to a scale score by using the conversion chart that will be posted on the Department’s web site at: <http://www.p12.nysed.gov/assessment/> on the day of the exam. The student’s scale score should be entered in the box labeled “Scale Score” on the student’s answer sheet. The scale score is the student’s final examination score.

Schools are not permitted to rescore any of the open-ended questions on this exam after each question has been rated once, regardless of the final exam score. Schools are required to ensure that the raw scores have been added correctly and that the resulting scale score has been determined accurately.

Because scale scores corresponding to raw scores in the conversion chart may change from one administration to another, it is crucial that, for each administration, the conversion chart provided for that administration be used to determine the student’s final score.

Part B–2

Allow a maximum of 15 credits for this part.

To ensure the accuracy of overlays, select a printer setting such as *full*, *actual size*, or *100%* when printing this document. Do **not** select the *fit to page* setting.

51 [1] Allow 1 credit for Pliocene Epoch.

52 [1] Allow 1 credit. Acceptable responses include, but are not limited to:

- running water/water
- streams
- rivers

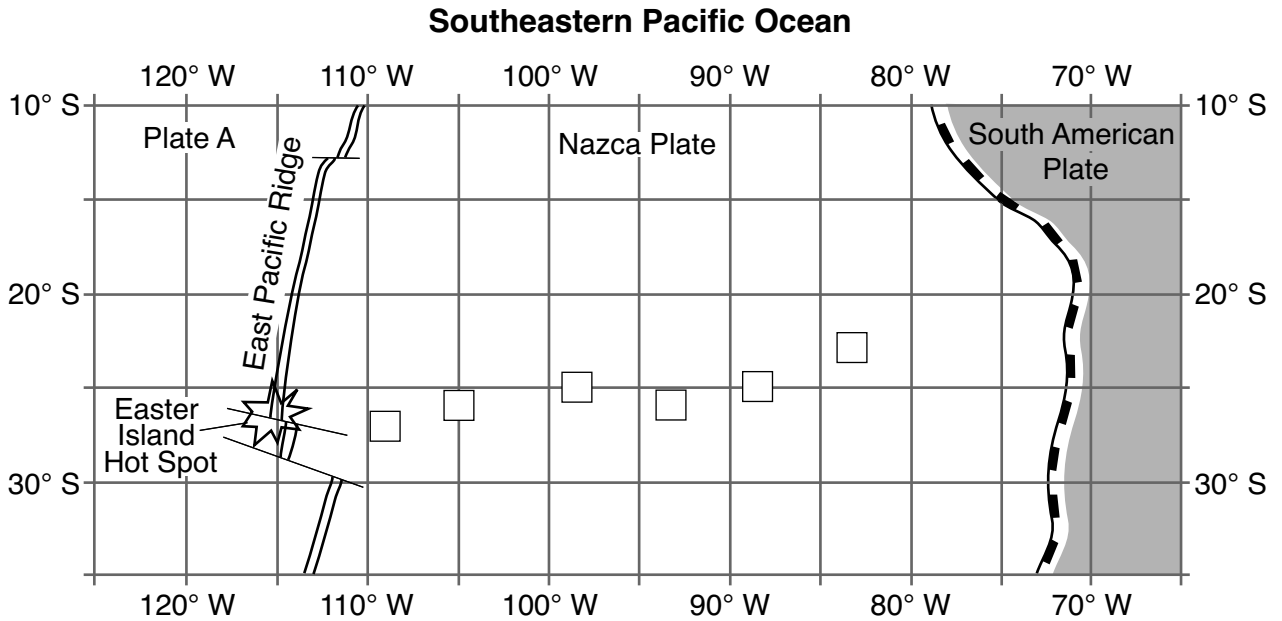
53 [1] Allow 1 credit for amphibole/hornblende *or* biotite mica/biotite.

Note: Do *not* accept “mica” alone because some micas, such as muscovite mica, do not contain iron.

54 [1] Allow 1 credit if the centers of *all six Xs* are within or touch the clear boxes shown below.

Note: Allow credit if a symbol other than an **X** is used.

It is recommended that an overlay of the same scale as the student answer sheet be used to ensure reliability in rating.



55 [1] Allow 1 credit for Pacific Plate.

56 [1] Allow 1 credit. Acceptable responses include, but are not limited to:

- As distance from the East Pacific Ridge increases, the age of the bedrock of the islands and seamounts increases.
- The farther from the ridge, the older the bedrock.
- Younger bedrock is closer to the ridge.
- direct relationship

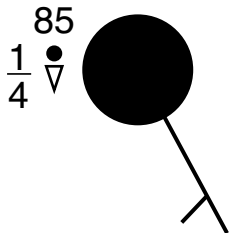
57 [1] Allow 1 credit for 2260 J/g.

58 [1] Allow 1 credit for *both* processes: evaporation *or* vaporization at letter B and transpiration *or* evapotranspiration at letter C.

59 [1] Allow 1 credit for Jamestown.

60 [1] Allow 1 credit for any value from 29.52 to 29.53 in of Hg.

61 [1] Allow 1 credit if *all four* weather conditions are in the correct locations and in the correct formats, as shown below.

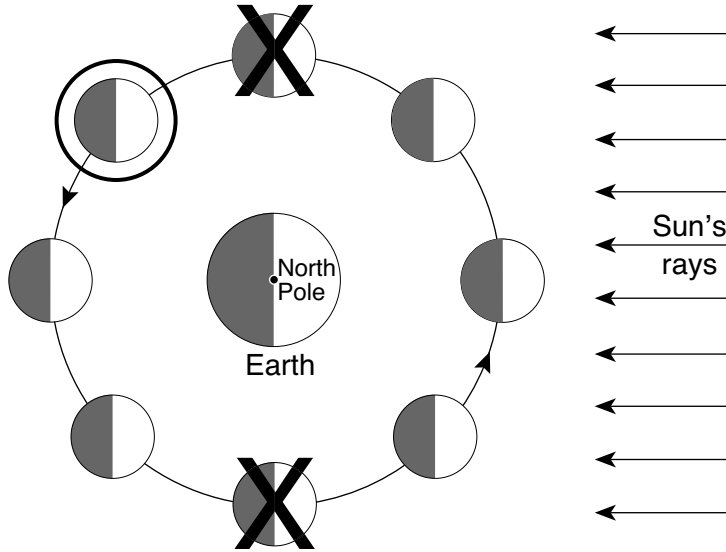


62 [1] Allow 1 credit for barometer *or* barograph.

63 [1] Allow 1 credit for circling *only* the position shown in the example below.

64 [1] Allow 1 credit if the centers of *only two Xs* are placed on the diagram – one to indicate the 1st quarter phase and one to indicate the 3rd quarter phase, as shown below.

Example of a 2-credit response for 63–64:



(Not drawn to scale)

65 [1] Allow 1 credit for February 3, 2019 *or* February 4, 2019.

Part C

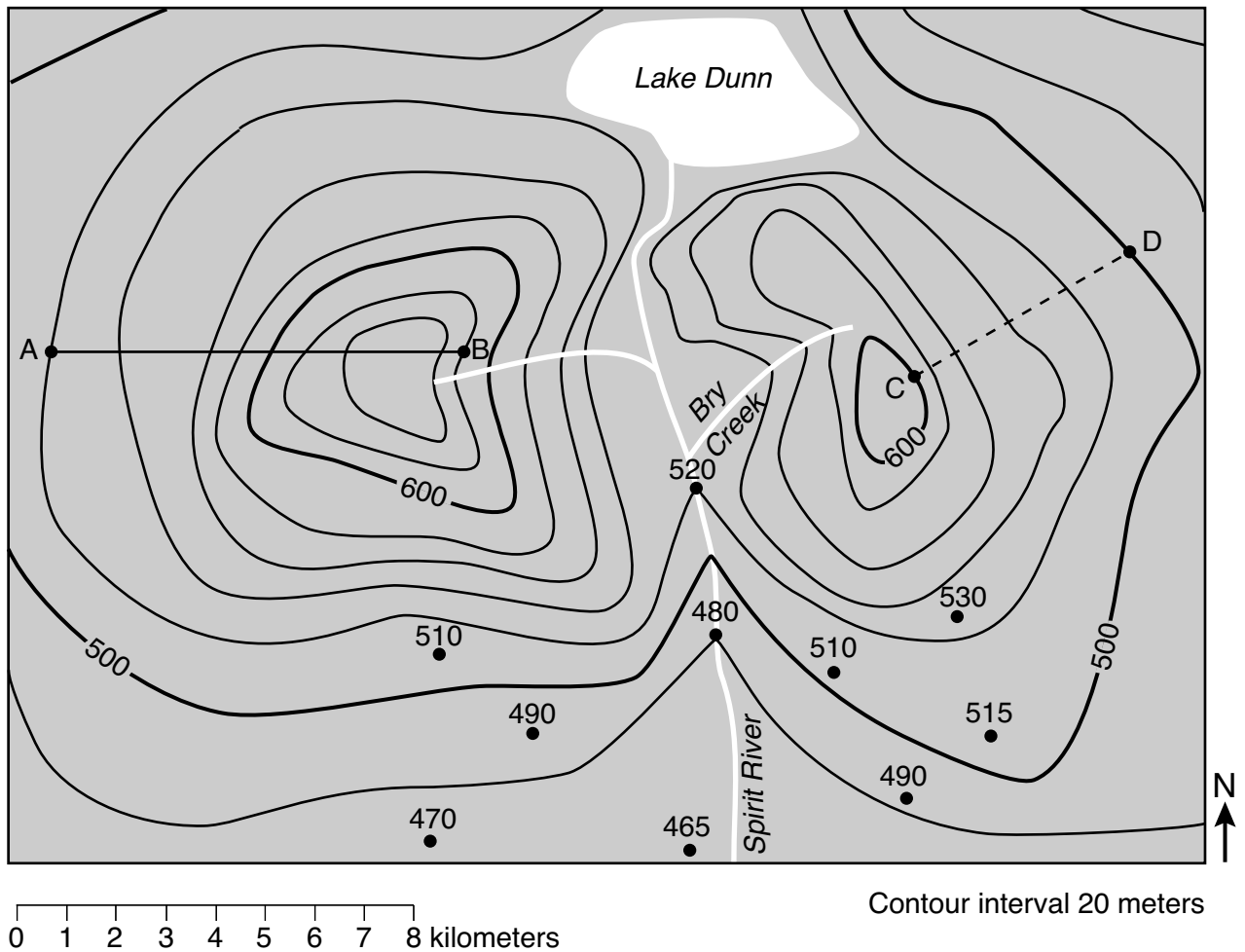
Allow a maximum of 20 credits for this part.

- 66 [1] Allow 1 credit if *all three* contour lines are correctly drawn and connected to the partially drawn contour lines on either side of Spirit River.

Note: If additional contour lines are drawn, all must be correct to receive credit.

Do *not* allow credit if student-drawn contour lines do not pass through or touch the 480 m or 520 m dots.

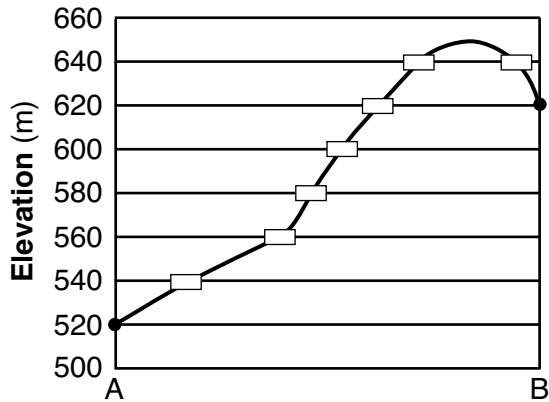
Example of a 1-credit response:



- 67 [1] Allow 1 credit if the centers of *all seven* student plots are within or touch the clear rectangles shown below and *all nine* plots are correctly connected with a line that passes within or touches the rectangles. The line must show the highest elevation above 640 m, but below 660 m.

Note: Allow credit if the line does *not* pass through the student's plots, but is still within or touches the rectangles.

It is recommended that an overlay of the same scale as the student answer sheet be used to ensure reliability in rating.



- 68 [1] Allow 1 credit for any value from 18.8 to 21.2 m/km.

- 69 [1] Allow 1 credit. Acceptable responses include, but are not limited to:
- Contour lines bend upstream when they cross Bry Creek.
 - Contour lines make V shapes that point northeast at Bry Creek.
 - The creek flows out of the open end of the Vs.
 - Bry Creek flows from a higher to a lower contour line.
 - Elevations decrease toward the southwest.

Note: Do *not* allow credit for “water flows downhill” alone because it is stated in the question.

- 70 [1] Allow 1 credit for limestone *or* coquina.

- 71 [1] Allow 1 credit if *both* responses indicate an increase.

Change in pressure:

- increase
- higher/greater

Change in temperature:

- increase
- hotter
- higher

- 72** [1] Allow 1 credit. Acceptable responses include, but are not limited to:
- The mineral that makes up quartzite is harder than the mineral that makes up marble.
 - The hardness of calcite is only 3 while the hardness of quartz is 7.
 - Marble is softer than quartzite because it is made of calcite, a softer mineral.
- 73** [1] Allow 1 credit for gravity *or* gravitation *or* gravitational pull.
- 74** [1] Allow 1 credit for nuclear fusion *or* fusion.
- 75** [1] Allow 1 credit for Mars and Jupiter.
- 76** [1] Allow 1 credit. Acceptable responses include, but are not limited to:
- 10:00 a.m.
 - 10 am
 - 1000 (military time)
 - 10 in the morning
- 77** [1] Allow 1 credit for Massena.
- 78** [1] Allow 1 credit. Acceptable responses include, but are not limited to:
- Calgary is surrounded by land, which has a lower specific heat than water.
 - Sitka is located near a large body of water, which has a higher specific heat than land materials.
 - The large body of water near Sitka moderates the temperature.
 - Calgary has a continental climate, while Sitka has a maritime climate.
 - Calgary is farther inland.
- 79** [1] Allow 1 credit. Acceptable responses include, but are not limited to:
- Monterrey is at a lower latitude.
 - Monterrey is closer to the equator.
 - Calgary is farther north.
 - The latitude of the Sun's vertical ray is always closer to Monterrey's location.

80 [1] Allow 1 credit if *both* responses are correct. Acceptable responses include, but are not limited to:

Type of precipitation in Calgary:

- snow/snow showers
- sleet
- freezing rain

Type of precipitation in Monterrey:

- rain/rain showers
- drizzle

Note: Do *not* allow credit for “hail” as the type of precipitation in either Calgary or Monterrey because this is not the most likely type of precipitation that occurs at these locations.

Do *not* allow credit for “thunderstorms” as the type of precipitation in Monterrey because this does not identify the type of precipitation but a meteorological event.

81 [1] Allow 1 credit for delta *or* river delta.

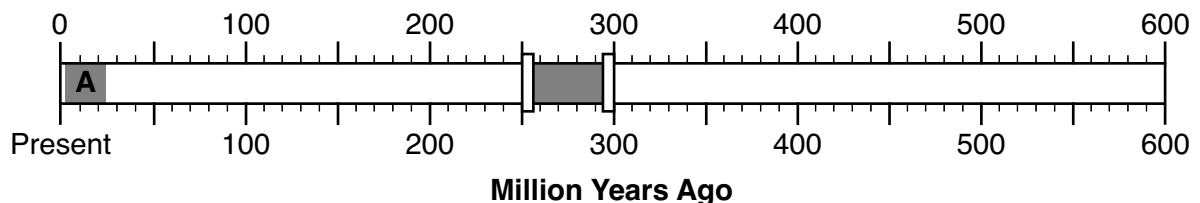
82 [1] Allow 1 credit. Acceptable responses include, but are not limited to:

- Rocks are rounded by tumbling and having sharp corners wear down or break off.
- weathering by abrading with other sediments or against the streambed
- Abrasion polishes and shapes rocks.
- by scraping, bouncing, and rolling along
- by colliding with other particles in the water

Note: Do *not* allow credit for “water” or “erosion” acting alone because water alone, without sediments, does not abrade rock, and erosion is restating the question.

Do *not* allow credit for “weathering” alone because this term is too general and does not describe how sediments are rounded and smoothed.

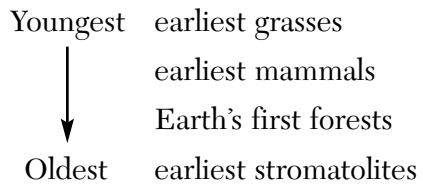
83 [1] Allow 1 credit for a shaded bar that begins and ends within or is touching the clear rectangles shown below.



Note: It is recommended that an overlay of the same scale as the student answer sheet be used to ensure reliability in rating.

- 84 [1] Allow 1 credit. Acceptable responses include:
- Allegheny Plateau/Appalachian Plateau (Uplands)
 - The Catskills
 - Hudson-Mohawk Lowlands
 - Erie-Ontario Lowlands/Interior Lowlands

85 [1] Allow 1 credit if *all four* organisms are listed in the correct order as shown below.



Regents Examination in Physical Setting/Earth Science

v202

Chart for Converting Total Test Raw Scores to Final Examination Scores (Scale Scores)

The *Chart for Determining the Final Examination Score for the v202 Regents Examination in Physical Setting/Earth Science* will be posted on the Department's web site at: <http://www.p12.nysed.gov/assessment/> on the day of the exam. Conversion charts provided for previous administrations of the Regents Examination in Physical Setting/Earth Science must NOT be used to determine students' final scores for this administration.

Online Submission of Teacher Evaluations of the Test to the Department

Suggestions and feedback from teachers provide an important contribution to the test development process. The Department provides an online evaluation form for State assessments. It contains spaces for teachers to respond to several specific questions and to make suggestions. Instructions for completing the evaluation form are as follows:

1. Go to <http://www.p12.nysed.gov/assessment/teacher/evaluation.html>.
2. Select the test title.
3. Complete the required demographic fields.
4. Complete each evaluation question and provide comments in the space provided.
5. Click the **SUBMIT** button at the bottom of the page to submit the completed form.

Map to Core Curriculum

v202 Physical Setting/Earth Science			
Question Numbers			
Key Ideas/Performance Indicators	Part A	Part B	Part C
Standard 1			
Math Key Idea 1		43, 54	67, 68, 83
Math Key Idea 2	1, 3, 14, 22, 25, 26, 30	36, 49, 51, 56, 60	75, 76, 80
Math Key Idea 3	15		66
Science Inquiry Key Idea 1	2	38, 47	72, 73, 74, 77, 78, 79
Science Inquiry Key Idea 2			
Science Inquiry Key Idea 3	3, 6, 12, 14, 17, 18, 20, 23, 24, 26, 28, 29, 30, 31, 32, 34	43, 49, 51, 52, 53, 55, 57, 60, 61	68, 70, 71, 72, 75, 78, 83, 84, 85
Engineering Design Key Idea 1			
Standard 2			
Key Idea 1		59, 60	
Key Idea 2			
Key Idea 3			
Standard 6			
Key Idea 1	9, 35	40, 46, 48, 50, 59	81
Key Idea 2	10, 11, 15, 16, 20, 21, 22, 23, 27, 29, 33, 35	36, 37, 39, 41, 42, 44, 45, 46, 48, 50, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65	66, 67, 73, 76, 77, 78, 80, 81, 84
Key Idea 3	14		69, 85
Key Idea 4			
Key Idea 5	10, 11, 22	63, 65	71, 76, 82
Key Idea 6			
Standard 7			
Key Idea 1			
Key Idea 2	13		
Standard 4			
Key Idea 1	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 20, 21, 22, 23, 25	36, 37, 42, 43, 44, 45, 46, 47, 51, 54, 57, 58, 63, 64, 65	75, 76, 77, 83, 85
Key Idea 2	12, 13, 14, 15, 16, 17, 18, 19, 24, 26, 27, 28, 29, 30, 33, 34, 35	38, 39, 40, 41, 48, 49, 50, 52, 55, 56, 59, 60, 61, 62	66, 67, 68, 69, 78, 79, 80, 81, 82, 84
Key Idea 3	31, 32	53	70, 71, 72, 73, 74
Reference Tables			
ESRT 2011 Edition (Revised)	3, 6, 12, 14, 17, 18, 20, 23, 24, 26, 28, 29, 30, 32, 32, 34	43, 49, 51, 53, 55, 57, 60, 61	68, 70, 71, 72, 75, 78, 83, 84, 85