



# NEW YORK STATE MIGRANT EDUCATION PROGRAM

**TITLE:** Regents Prep for Earth Science

**DESCRIPTION:** This Guide provides everything you need to prepare students for the Earth Science Regents Exam and recommends how to use the materials in different Regents Prep scenarios:

- **Four sessions** – How to prioritize the materials for use with students who understand the content but need to prepare for taking the test.
- **Twelve sessions** – How to use the resources with students who need to review the earth science content, along with practicing how to take the test.

A complete list of the resources available on the NYS MEP website is at the end of the Facilitator Guide.

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## FACILITATOR GUIDE

### GENERAL INFORMATION ABOUT THE REGENTS EXAM

The Earth Science Regents examination is typically given to students at the end of 9<sup>th</sup> grade or 10<sup>th</sup> grade. It is a physical science credit.

- Students must complete 1200 minutes of laboratory experience prior to taking the exam.
- The provided Earth Science Reference Tables (ESRT) are used on approximately 35% of the questions on the exam.

***The exam consists of the following parts:***

**Part A:** Multiple Choice

**Part B-1:** Sequenced Multiple Choice – often grouped questions

**Part B-2:** Sequenced Short Answer Response – often grouped questions

**Part C:** Constructed Response

- Calculations
- Measurements
- Mapping Skills

**Part D:** Lab Practical – The lab practical is taken in class, prior to the written examination.

***Appropriate materials to take to the examination:***

- Pen (black or blue)
- Pencils
- Eraser

***Materials provided at the exam:***

- The ESRT (Earth Science Reference Tables)
- Calculator – Students should check the calculator to make sure it works.
- Answer sheet – written responses and bubble sheet
- Examination booklet

***Reminders for students on the day of the examination:***

You have a total of three hours to complete your examination. Use all of the time if you need it. If you are done early, go through your examination again.

Written answers are done in PEN, except drawings, graphs, and maps that can be done in PENCIL.

NEVER leave blanks. Blanks are ALWAYS wrong. If you don't know, try to write something that you might know from Earth Science. Writing "I don't know" or "IDK" is always wrong.

NO communication device can be used in the examination room – you could receive a zero. Turn them off and leave them where instructed to.

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**PLANNING THE FOUR-SESSION REGENTS PREP CLASS**

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For use with students who already have a good understanding of the content, but need to refresh their memories about the topics learned earlier in the year, along with learning the test-taking skills needed for the Earth Science Regents Exam.

**PREPARATION**

Check with guidance/classroom teacher to make sure the students are on track for completing the required 1200 minutes of laboratory experience needed prior to being eligible to take the Earth Science Regents Exam.

Preview the materials to see what makes the most sense for your space and amount of time. Students will need calculators.

Ask students and their teachers ahead of time which topics they need to review. Use these topics to prioritize one content unit to review at each of the four sessions.

## SESSION 1

**Introduction:** Review the requirements for taking the NYS Earth Science Regents Exam, with the **Content Review Lesson: Introduction** handout. This describes what the exam will be like, what students can take into the exam, and what will be provided.

Then continue with the “Every Session” activities, establishing the routine.

## EVERY SESSION

Prioritize using the Earth Science Reference Tables, as these represent approximately 35% of the questions on the exam, and the Constructed Responses, as these can be difficult to figure out what the question is.

### Earth Science Reference Tables (ESRT)

Practice locating the reference information and solving the questions each session. The practice worksheets follow the same order as the ESRT.

- **The ESRT Review Guide** has the ESRT page numbers written on it, so use these questions as a Scavenger Hunt. Skip around through the questions so students need to search their ESRTs and find where the reference or formula is located. Ask at least one from each page each night. Cross off questions used, so you don’t repeat them in another session.
- **The Earth Science Reference Tables Review** – Use this worksheet for students to solve the problems. With only four sessions, select questions from each ESRT page instead of answering every one, so that the group can hit four (4) ESRT pages per session.

### Test-Taking Practice

Focus on how to read the questions accurately and how to evaluate charts, with the practice exam resource, **Part C – Constructed Response**. In this section, students are required to do calculations, interpret maps, graphs and drawings with short answer responses. Check responses together using the **Answer Key**.

- Change it up one session, and answer questions from each section of the most recent Earth Science Regents Exam that has been released for public use.
- Make sure students practice using the Answer Booklet for Part 2-B (short answer) and Part C (constructed response). Students will use a “bubble” sheet for the multiple-choice questions.

### Instruction

If there is time, target one **Content Review Lesson topic** to review. Follow up with the **Parts A and B-1 Multiple Choice Practice Exam** for the topic. Choose the topic based on what students and teachers told you. Then adjust if different topics become more of a priority during the Regents Prep sessions.

## PLANNING THE TWELVE-SESSION REGENTS PREP CLASS

For use with students who need to spend time learning the content, as well as to become familiar with the test-taking skills specific to Earth Science.

### PREPARATION

Check with guidance/classroom teacher to make sure the students are on track for completing the required 1200 minutes of laboratory experience needed prior to being eligible to take the Earth Science Regents Exam.

Preview the materials to see what makes the most sense for your space and amount of time. Students will need calculators.

Ask students and their teachers ahead of time, which topics they need to review. Use these topics to prioritize how much time to spend on the content topics for each session.

### SESSION 1

**Introduction:** Review the requirements for taking the NYS Earth Science Regents Exam, with the **Content Review Lesson: Introduction** handout. This describes what the exam will be like, what students can take into the exam and what will be provided.

Then continue with the “Every Session” activities, establishing the routine.

### EVERY SESSION

#### Instruction

**Earth Science Content Review Lessons** – there are twelve (12) topic areas, plus the Introduction. Target one per session.

#### Earth Science Reference Tables (ESRT)

Practice locating the reference information and solving the questions each session. The practice worksheets follow the same order as the ESRT.

- **The Earth Science Reference Tables Review** – Select from the 145 questions each session for students to work through, solving the problems. Use the Answer Key.
- **Useful Web Links for Earth Science** – If you have Wi-Fi access, use the link for the middle school teacher’s YouTube site with short videos about the various pages of the ESRT.
- **The Geologic History of New York State** – 10 questions to use one session.
- **Scavenger Hunt** - After a few sessions, introduce the Scavenger Hunt. The **ESRT Review Guide** has the ESRT page numbers written on it, making it easy to use Scavenger Hunt.

Skip through the questions so students need to search their ESRTs and find where the reference or formula is located. Cross off questions as they are used. (**Note:** this is just to practice finding the right part of the ESRT, not solving these problems. There is not an answer key for these problems.)

### **Test-Taking Practice**

**Part A and Part B-1 Practice Exam** – Practice the multiple choice questions the that match the topic uses in the Content Review. Check together using the **Answer Key**.

**Part C- Constructed Responses** - Each session, answer questions from this practice exam. Focus on how to read the questions accurately and how to evaluate charts, with the practice exam resource. In this section, students are required to do calculations, interpret maps, graphs and drawings with short answer responses. Check responses together using the **Answer Key**.

Change it up some sessions, and answer questions from each section of the most recent **Earth Science Regents Exams released for public use**.

- Have students practice using the Answer Booklet for Part 2-B (short answer) and Part C (constructed response). Students will use a “bubble” sheet for the multiple-choice questions.
- Check responses together using the Answer Key.

### **DESCRIPTION OF RESOURCES FOR REGENTS PREP: EARTH SCIENCE RESOURCES**

Located on the NYS MEP website [www.nysmigrant.org](http://www.nysmigrant.org)

Select >Resources, then >Library

and scroll to “Regents Prep: Earth Science”

#### **I. Earth Science Instruction**

- Facilitator Guide** – Recommends how to prioritize the use of these resources for either a 4-session Regents Prep class or a 12-session Regents Prep class.
- Content Review Lessons** – Key vocabulary and concepts, with related use of the ESRT (Earth Science Reference Table) for each of twelve (12) Earth Science topics. Click on the topic to view and/or download.

**Introduction** – 2-page general information for students about the exam, requirements, and tips for taking the exam.

**Topic 1** – Science Skills

**Topic 2** – Measuring the Earth

**Topic 3** – Earth and Universe

**Topic 5** – Energy

**Topic 6** – Insolation and the Seasons

- Topic 7 – Weather
- Topic 8 – Climates and Water
- Topic 9 – Dynamic Crust
- Topic 10 – Earth’s History
- Topic 11 – Rocks and Minerals
- Topic 12 – Shaping the Earth

c. **Useful Web Links for Earth Science** – Handout with links to helpful resources

d. **Vocabulary**

- Link to all of New York State’s academic Bilingual Glossaries
  - Scroll down to “Science,” then “High School Living Environment (Biology). Once there, click on the language you want. The languages currently include Burmese, Haitian, Karen, Nepali, Spanish, and Swahili.

<https://steinhardt.nyu.edu/metrocenter/resources/glossaries>

- **Note:** “English Language Learners may use bilingual glossaries when taking State examinations in all subjects except foreign languages. **The bilingual dictionaries and glossaries may provide only direct one to one translations of words. Bilingual dictionaries and/or glossaries that provide definitions or explanations are not permitted.**”

<http://www.nysed.gov/bilingual-ed/english-language-learnermultilingual-learner-assessment-testing-accommodations>

e. **Lab Practical Review** – Power Point with information to review for the Lab Practical. (29 slides)

II. **Earth Science Reference Tables (ESRT)** – Students need to be able to find and use the references during the exam. The ESRT is used for approximately 35% of the questions on the exam. M-TASC created a Table of Contents to help Migrant Educators help their students use the ESRT.

a. **Copy of the 2011 Earth Science Reference Tables**

- 2011 ESRT – English
- 2011 ESRT – Spanish
- ESRT Table of Contents

b. **Reference Table Worksheets** – Use these to practice how to use the ESRT (Earth Science Reference Tables).

**The Geologic History of New York State** – 10 questions, no answer key

**The ESRT Review Guide** – 82 questions plus an essay, no answer key

**Earth Science Reference Tables Review Worksheet** – 145 questions on 8 pages; a student answer sheet; and the ANSWER KEY

**III. Earth Science Practice Exams**

The practice exams are comprised of past Regents questions. These are organized to practice by the types of questions asked.

- a. Parts A and B-1 – Multiple Choice.** Students need to answer multiple-choice problems, with sequenced questions in Part B-1. There is a Practice Exam for each of the twelve (12) units of study and each one has an Answer Key.

**Topic 1 – Science Skills**

Practice Exam  
Answer Key

**Topic 2 – Measuring the Earth**

Practice Exam  
Answer Key

**Topic 3 – Earth and Universe**

Practice Exam  
Answer Key

**Topic 4 – Motions of Earth, Sun, and Moon**

Practice Exam  
Answer Key

**Topic 5 – Energy**

Practice Exam  
Answer Key

**Topic 6 – Insolation and the Seasons**

Practice Exam  
Answer Key

**Topic 7 – Weather**

Practice Exam  
Answer Key

**Topic 8 – Climates and Water**

Practice Exam  
Answer Key

**Topic 9 – Dynamic Crust**

Practice Exam  
Answer Key

**Topic 10 – Earth’s History**

Practice Exam

Answer Key

**Topic 11 – Rocks and Minerals**

Practice Exam

Answer Key

**Topic 12 – Shaping the Earth**

Practice Exam

Answer Key

- b. Part C – Constructed Response.** Students are required to do calculations, interpret maps, graphs and drawings with short answer responses. This practice exam is one document with 50 problems.

Practice Exam

Answer Key



#### **IV. Earth Science Past Regents Exams**

This list of exams will be updated periodically to contain the three most recent Earth Science Regents Exams released for public use. The “Student Answer Booklets” allow students to write their short answers and constructed responses for Part 2-B and Part C of the exam.

##### **a. August 2017**

- English – Student Exam
- English – Student Answer Booklet
- Spanish – Student Exam
- Spanish – Student Answer Booklet
- Answer Key (only in English)

##### **b. January 2018**

- English – Student Exam
- English – Student Answer Booklet
- Spanish – Student Exam
- Spanish – Student Answer Booklet
- Answer Key (only in English)

##### **c. June 2018**

- English – Student Exam
- English – Student Answer Booklet
- Spanish – Student Exam
- Spanish – Student Answer Booklet
- Answer Key (only in English)