

MATERIAL COVERED:

The Earth Science 11 course is divided into four major parts:

1. The Heavens

- Stars and Galaxies
- The Sun and Solar System
- Planets and the Solar System
- Earth's Moon

3. Plate Tectonics

- Plate Tectonics
- Volcanism and Plate Tectonics
- Earthquakes and Plate Tectonics
- Mountains and Plate Tectonics

2. The Earth

- Rock Formation
- The Rock Record
- The Pre-Cambrian / Paleozoic
- The Mesozoic / Cenozoic

4. Weathering and Erosion

- Weathering and Movement
- Running Water
- Glaciers
- Wind, Waves and Currents

TEXTBOOK:

The course uses the following text: *Earth Science (1994 Edition, ISBN 0-669-26183-1)*

NOTEBOOK:

Your notebook should be neatly organized, as this will help you study for tests. Label the unit and topic headings clearly at the top of each page. Answer questions fully, so that the information makes sense and can be used later for studying. Show which page number the information comes from so you can look it up again easily.

EVALUATION:

This course works on a mastery system. You must pass the mastery tests in each unit to the 80% level before you can go on. In addition, there are cumulative tests from time to time. These are tests you can take only once, so studying before them is essential to doing well. Your final mark for the course is based 60% on mastery tests and 40% on cumulative tests.

GOAL

The goal of this unit is to become familiar with selected characteristics of stars.

OBJECTIVES

While completing this unit you will:

1. Learn why constellations move in the night sky.
2. Learn what an astronomical unit is.
3. Investigate the physical properties of stars and their magnitudes.
4. Learn about the differences between giants, super giants, and dwarf stars.
5. Investigate the Hertzsprung-Russell Diagram and how it relates to the life stages of a star.
6. Determine where stars come from.
7. Learn how red giants, dwarfs, and supernovas are formed.
8. Learn what galaxies are and their types.
9. Investigate the origin of the universe.

WHAT TO DO IN THIS UNIT

1. Ask your teacher for the Unit 1 Worksheets. In the textbook, read Topics 1 & 2 on p. 377, and answer the questions in Part 1 in the Unit 1 worksheet.
2. Read Topic 3 on p. 379, and answer the questions in Part 2 in the Unit 1 worksheet.
3. Read Topic 4 on p. 379, and answer the questions in Part 3 in the Unit 1 worksheet.
4. Read Topic 6 on p. 380, and answer the questions in Part 4 in the Unit 1 worksheet.
5. Read Topic 7 on p. 382, and answer the questions in Part 5 in the Unit 1 worksheet.
6. Read Topic 10 on p. 385, and answer the questions in Part 6 in the Unit 1 worksheet.
7. Read Topic 11 on p. 386, and answer the questions in Part 7 in the Unit 1 worksheet.
8. Read Topic 12 on p. 386, and answer the questions in Part 8 in the Unit 1 worksheet.
9. Read Topic 13 on p. 386, and answer the questions in Part 9 in the Unit 1 worksheet.
10. Read Topic 15 on p. 389, and answer the questions in Part 10 in the Unit 1 worksheet.
11. Read Topic 16 on p. 390, and answer the questions in Part 11 in the Unit 1 worksheet.
12. Read Topic 18 on p. 390, and answer the questions in Part 12 in the Unit 1 worksheet.
13. The diagram on p. 382 is a simplified Hertzsprung-Russell Diagram. Using another source, like the library or the internet answer the question in Part 13 in the Unit 1 worksheet.
14. When you are ready, ask your teacher for the Unit 1 Test. Remember, you must get 80% to pass, so studying hard is essential.

GOAL

The goal of this unit is to learn about the sun and the solar system

OBJECTIVES

While completing this unit you will:

1. Determine how big and how hot the sun is.
2. Investigate the composition of the sun's surface.
3. Learn what sunspots are.
4. Learn what solar flares, magnetic storms and the solar wind are.
5. Determine the source of the sun's energy.
6. Investigate the makeup of our solar system.
7. Learn how to recognize planets.

WHAT TO DO IN THIS UNIT

1. Ask your teacher for the Unit 2 Worksheets. In the textbook, read Topics 1 & 2 on p. 397, and answer the questions in Part 1 of the Unit 2 worksheet.
2. Read Topic 3 on p. 398, and answer the questions in Part 2 of the Unit 2 worksheet.
3. Read Topic 4 on p. 399, and answer the questions in Part 3 of the Unit 2 worksheet.
4. Read Topic 5 on p. 400, and answer the questions in Part 4 of the Unit 2 worksheet.
5. Read Topic 6 on p. 401, and answer the questions in Part 5 of the Unit 2 worksheet.
6. Read Topic 7 on p. 403, and answer the questions in Part 6 of the Unit 2 worksheet.
7. Read Topic 8 on p. 403, and answer the questions in Part 7 of the Unit 2 worksheet.

8. When you are ready, ask your teacher for the Unit 2 Test. Remember, you must get 80% to pass, so studying hard is essential.

GOAL

The goal of this unit is to learn about the planets and our solar system.

OBJECTIVES

While completing this unit you will:

1. Determine how planets are divided into two groups.
2. Investigate the planet Mercury.
3. Investigate the planet Venus.
4. Investigate the planet Mars.
5. Investigate the planet Jupiter.
6. Investigate the planet Saturn.
7. Investigate the planets Uranus, Neptune, and Pluto.
8. Learn about the many planetary moons.
9. Learn about planetary rings.
10. Investigate comets, asteroids, meteors and meteoroids.

WHAT TO DO IN THIS UNIT

1. Ask your teacher for the Unit 3 Worksheets. In the textbook, read Topic 1 on p. 413, and answer the questions in Part 1 of the Unit 3 Worksheet.
2. Read Topic 2 on p. 413, and answer the questions in Part 2 of the Unit 3 Worksheet.
3. Read Topic 3 on p. 414, and answer the questions in Part 3 of the Unit 3 Worksheet.
4. Read Topic 5 on p. 415, and answer the questions in Part 4 of the Unit 3 Worksheet.
5. Read Topic 6 on p. 417, and answer the questions in Part 5 of the Unit 3 Worksheet.
6. Read Topic 7 on p. 417, and answer the questions in Part 6 of the Unit 3 Worksheet.
7. Read Topic 8 on p. 418, and answer the questions in Part 7 of the Unit 3 Worksheet.
8. Read Topic 9 & 10 on p. 419, and answer the questions in Part 8 of the Unit 3 Worksheet.
9. Read Topic 11 on p. 421, and answer the questions in Part 9 of the Unit 3 Worksheet.
10. Read Topic 12 on p. 421, and answer the questions in Part 10 of the Unit 3 Worksheet.
11. Read Topic 13 on p. 422, and answer the questions in Part 11 of the Unit 3 Worksheet.
12. Read Topic 14 on p. 423, and answer the questions in Part 12 of the Unit 3 Worksheet.
13. Read Topic 15 on p. 423, and answer the questions in Part 13 of the Unit 3 Worksheet.
14. Read Topic 16 on p. 424, and answer the questions in Part 14 of the Unit 3 Worksheet.
15. Read Topic 17 on p.425, and answer the questions in Part 15 of the Unit 3 Worksheet.
16. Read Topic 18 on p.425, and answer the questions in Part 16 of the Unit 3 Worksheet.
17. Read Topic 19 on p. 426, and answer the questions in Part 17 of the Unit 3 Worksheet.

18. When you are ready, ask your teacher for the Unit 3 Test. Remember, you must get 80% to pass, so studying hard is essential.

GOAL

The goal of this unit is to investigate characteristics of earth's moon.

OBJECTIVES

While completing this unit you will:

1. Compare selected characteristics of the moon and the earth.
2. Investigate the differences between the front and back side of the moon.
3. Learn how the lunar landscape was formed.
4. Investigate erosion on the moon.
5. Learn about lunar maria, mountains, craters, rays, and rilles.

WHAT TO DO IN THIS UNIT

1. Ask your teacher for the Unit 4 Worksheets. In the textbook, read Topic 6 on p. 437, and answer the questions in Part 1 of the Unit 4 Worksheet.
2. Read Topic 7 on p. 437, and answer the questions in Part 2 of the Unit 4 Worksheet.
3. Read Topic 8 on p. 438, and answer the questions in Part 3 of the Unit 4 Worksheet.
4. Read Topic 10 on p. 440, and answer the questions in Part 4 of the Unit 4 Worksheet.
5. Read Topic 11 on p. 441, and answer the questions in Part 5 of the Unit 4 Worksheet.
6. Read Topic 12 on p. 442, and answer the questions in Part 6 of the Unit 4 Worksheet.

7. When you are ready, ask your teacher for the Unit 4 Test. Remember, you must get 80% to pass, so studying hard is essential.

8. Go over your notes, tests, and worksheets from Units 1 - 4. When you are ready, ask your teacher for Cumulative Test #1 on The Heavens. This test can only be written once, so good preparation is essential to do well.

GOAL

The goal of this unit is to learn about rock formation on earth

OBJECTIVES

While completing this unit you will:

1. Understand Hutton's uniformity of process theory.
2. Learn the differences between the three families of rocks.
3. Learn how to recognize igneous rocks and investigate how they are formed.
4. Learn how to recognize sedimentary rocks and investigate how they are formed.
5. Learn how to recognize metamorphic rocks and investigate how they are formed.
6. Learn about the rock cycle.

WHAT TO DO IN THIS UNIT

1. Ask your teacher for the Unit 5 Worksheets. In the textbook, read Topic 1 on p. 63, and answer the questions in Part 1 of the Unit 5 Worksheet.
2. Read Topic 2 on p. 63, and answer the questions in Part 2 of the Unit 5 Worksheet.
3. Read Topic 3 on p. 64, and answer the questions in Part 3 of the Unit 5 Worksheet.
4. Read Topic 4 on p. 65, and answer the questions in Part 4 of the Unit 5 Worksheet.
5. Read Topic 9 on p. 69, and answer the questions in Part 5 of the Unit 5 Worksheet.
6. Read Topic 10 on p. 69, and answer the questions in Part 6 of the Unit 5 Worksheet.
7. Read Topic 11 on p. 70, and answer the questions in Part 7 of the Unit 5 Worksheet.
8. Read Topic 12 on p. 70, and answer the questions in Part 8 of the Unit 5 Worksheet.
9. Read Topic 13 on p. 71, and answer the questions in Part 9 of the Unit 5 Worksheet.
10. Read Topic 14 on p. 71, and answer the questions in Part 10 of the Unit 5 Worksheet.
11. Read Topic 15 on p. 72, and answer the questions in Part 11 of the Unit 5 Worksheet.
12. Read Topic 16 on p. 73, and answer the questions in Part 12 of the Unit 5 Worksheet.
13. Read Topic 17 on p. 73, and answer the questions in Part 13 of the Unit 5 Worksheet.
14. Read Topic 19 on p. 76, and answer the questions in Part 14 of the Unit 5 Worksheet.
15. Read Topic 20 on p. 76, and answer the questions in Part 15 of the Unit 5 Worksheet.
16. Read Topic 22 on p. 78, and answer the questions in Part 16 of the Unit 5 Worksheet.
17. Read Topic 23 on p. 78, and answer the questions in Part 17 of the Unit 5 Worksheet.

18. When you are ready, ask your teacher for the Unit 5 Test. Remember, you must get 80% to pass, so studying hard is essential.

GOAL

The goal of this unit is to learn about the rock record, and the methods used to date rocks.

OBJECTIVES

While completing this unit you will:

1. Investigate the difference between absolute and relative time.
2. Learn about the major events in Earth's geologic timetable.
3. Learn about the laws of relative time.
4. Investigate using fossils as measurements of relative time.
5. Discover how index fossils are used by geologists.
6. Learn how radioactivity is used to measure age.
7. Learn about other methods of dating such as radiocarbon, tree rings, and varves.

WHAT TO DO IN THIS UNIT

1. Ask your teacher for the Unit 6 Worksheets. In the textbook, read Topic 1 on p. 597, and answer the questions in Part 1 of the Unit 6 Worksheet.
2. Read Topic 2 on p. 597. and answer the questions in Part 2 of the Unit 6 Worksheet.
3. Read Topic 4 on p. 602, and answer the questions in Part 3 of the Unit 6 Worksheet.
4. Read Topic 6 on p. 604, and answer the questions in Part 4 of the Unit 6 Worksheet.
5. Read Topic 9 on p. 606, and answer the questions in Part 5 of the Unit 6 Worksheet.
6. Read Topic 10 on p.606, and answer the questions in Part 6 of the Unit 6 Worksheet.
7. Read Topic 13 on p. 608, and answer the questions in Part 7 of the Unit 6 Worksheet.
8. Read Topic 14 on p. 608, and answer the questions in Part 8 of the Unit 6 Worksheet.

9. Ask your teacher for a strip of paper about 5 m long, and a metre stick. Follow the instructions on p. 4 of the Unit 6 Worksheet.

There is no Unit 6 Test. Your timeline from step 10 will count as your mark for this unit. The material you have read in this unit, including the work on the Unit 6 Worksheet, will be included in Cumulative #2.

GOAL

The goal of this unit is to investigate the Precambrian and Paleozoic eras.

OBJECTIVES

While completing this unit you will:

1. Learn how long the Precambrian period was, and what life existed then.
2. Learn about the Precambrian rock record and mineral deposits.
3. Investigate the Paleozoic Era, the periods which make it up, and the features which were prevalent during each of these periods.

WHAT TO DO IN THIS UNIT

1. Ask your teacher for the Unit 7 Worksheets. In the textbook, read Topic 1 on p. 615, and answer the questions in Part 1 of the Unit 7 Worksheet.
2. Read Topic 2 on p. 615, and answer the questions in Part 2 of the Unit 7 Worksheet.
3. Read Topic 3 on p. 616, and answer the questions in Part 3 of the Unit 7 Worksheet.
4. Read Topic 4 on p. 616, and answer the questions in Part 4 of the Unit 7 Worksheet.
5. Read Topic 5 on p. 618, and answer the questions in Part 5 of the Unit 7 Worksheet.
6. Read Topic 6 on p. 618, and answer the questions in Part 6 of the Unit 7 Worksheet.
7. Read Topic 7 on p. 619, and answer the questions in Part 7 of the Unit 7 Worksheet.
8. Read Topic 8 on p. 620, and answer the questions in Part 8 of the Unit 7 Worksheet.
9. Read Topic 9 on p. 620, and answer the questions in Part 9 of the Unit 7 Worksheet.
10. Read Topic 10 on p. 621, and answer the questions in Part 10 of the Unit 7 Worksheet.
11. Read Topic 11 on p. 621, and answer the questions in Part 11 of the Unit 7 Worksheet.
12. Read Topic 12 on p. 622, and answer the questions in Part 12 of the Unit 7 Worksheet.
13. Read Topic 13 on p. 622, and answer the questions in Part 13 of the Unit 7 Worksheet.
14. When you are ready, ask your teacher for the Unit 7 Test. Remember, you must get 80% to pass, so studying hard is essential.

GOAL

The goal of this unit is to learn about the Mesozoic and Cenozoic eras.

OBJECTIVES

While completing this unit you will:

1. Learn about the three periods of the Mesozoic era.
2. Learn about continent formation.
3. Investigate the rise of the dinosaurs during the Mesozoic era.
4. Learn what other animals, marine life and plants were present during the Mesozoic era.
5. Learn how scientists believe the mass extinction of the dinosaurs happened.
6. Investigate the two periods and seven epochs of the Cenozoic era.
7. Learn about the plants, animals, marine life present during the Cenozoic era.
8. Investigate the rise of humans.

WHAT TO DO IN THIS UNIT

1. Ask your teacher for the Unit 8 Worksheets. In the textbook, read Topic 1 on p. 629, and answer the questions in Part 1 of the Unit 8 Worksheet.
2. Read Topic 2 on p. 630, and answer the questions in Part 2 of the Unit 8 Worksheet.
3. Read Topic 3 on p. 630, and answer the questions in Part 3 of the Unit 8 Worksheet.
4. Read Topic 4 on p. 631, and answer the questions in Part 4 of the Unit 8 Worksheet.
5. Read Topic 5 on p. 632, and answer the questions in Part 5 of the Unit 8 Worksheet.
6. Read Topic 6 on p. 632, and answer the questions in Part 6 of the Unit 8 Worksheet.
7. Read Topic 7 on p. 634, and answer the questions in Part 7 of the Unit 8 Worksheet.
8. Read Topic 8 on p. 634, and answer the questions in Part 8 of the Unit 8 Worksheet.
9. Read Topic 9 on p. 634, and answer the questions in Part 9 of the Unit 8 Worksheet.
10. Read Topic 10 on p. 635, and answer the questions in Part 10 of the Unit 8 Worksheet.
11. Read Topic 11 on p. 636, and answer the questions in Part 11 of the Unit 8 Worksheet.
12. Read Topic 12 on p. 636, and answer the questions in Part 12 of the Unit 8 Worksheet.
13. Read Topic 13 on p. 636 and answer the questions in Part 13 of the Unit 8 Worksheet.
14. Read Topic 14 on p. 638, and answer the questions in Part 14 of the Unit 8 Worksheet.

15. When you are ready, ask your teacher for the Unit 8 Test. Remember, you must get 80% to pass, so studying hard is essential.

16. Go over your notes, tests, and worksheets from Units 5 - 8. When you are ready, ask your teacher for Cumulative Test #2 on The Earth. This test can only be written once, so good preparation is essential to do well.

GOAL

The goal of this unit is to investigate plate tectonics.

OBJECTIVES

While completing this unit you will:

1. Investigate how large pieces of the Earth's crust move in an action called plate tectonics.
2. Learn how thick the plates are.
3. Learn why the plates move.
4. Investigate the evidence for the theory of plate tectonics.
5. Discover where earthquakes and volcanoes cluster around the earth.
6. Learn how the magnetic polarity of igneous rocks supports the plate tectonics theory.
7. Learn how heat flow and sea floor elevation support the plate tectonics theory.
8. Learn about the four types of plate boundaries: diverging, sliding, converging, and subducting.

WHAT TO DO IN THIS UNIT

1. Ask your teacher for the Unit 9 Worksheets. In the textbook, read Topic 1 on p. 233, and answer the questions in Part 1 of the Unit 9 Worksheet.
2. Read Topic 2 on p. 234, and answer the questions in Part 2 of the Unit 9 Worksheet.
3. Read Topic 3 on p. 234, and answer the questions in Part 3 of the Unit 9 Worksheet.
4. Read Topic 4 on p. 236, and answer the questions in Part 4 of the Unit 9 Worksheet.
5. Read Topic 5 on p. 236, and answer the questions in Part 5 of the Unit 9 Worksheet.
6. Read Topic 6 on p. 237, and answer the questions in Part 6 of the Unit 9 Worksheet.
7. Read Topic 7 on p. 238, and answer the questions in Part 7 of the Unit 9 Worksheet.
8. Read Topic 8 on p. 240, and answer the questions in Part 8 of the Unit 9 Worksheet.
9. Read Topic 9 on p. 241, and answer the questions in Part 9 of the Unit 9 Worksheet.
10. Read Topic 10 on p. 242, and answer the questions in Part 10 of the Unit 9 Worksheet.
11. Read Topic 11 on p. 243, and answer the questions in Part 11 of the Unit 9 Worksheet.

12. When you are ready, ask your teacher for the Unit 9 Test. Remember, you must get 80% to pass, so studying hard is essential.

GOAL

The goal of this unit is to learn about volcanism and plate tectonics.

OBJECTIVES

While completing this unit you will:

1. Learn about the types and chemical make-up of magma.
2. Learn how magma reaches the surface.
3. Investigate the gases trapped in magma.
4. Learn about the types of lava.
5. Learn about the names for fragments of lava.
6. Investigate the different types of volcanic eruptions.
7. Learn about volcanic hot spots.

WHAT TO DO IN THIS UNIT

1. Ask your teacher for the Unit 10 Worksheets. In the textbook, read Topic 1 on p. 253, and answer the questions in Part 1 of the Unit 10 Worksheet.
2. Read Topic 2 on p. 254, and answer the questions in Part 2 of the Unit 10 Worksheet.
3. Read Topic 3 on p. 254, and answer the questions in Part 3 of the Unit 10 Worksheet.
4. Read Topic 4 on p. 254, and answer the questions in Part 4 of the Unit 10 Worksheet.
5. Read Topic 5 on p. 255, and answer the questions in Part 5 of the Unit 10 Worksheet.
6. Read Topic 6 on p. 256, and answer the questions in Part 6 of the Unit 10 Worksheet.
7. Read Topic 7 on p. 257, and answer the questions in Part 7 of the Unit 10 Worksheet.

8. When you are ready, ask your teacher for the Unit 10 Test. Remember, you must get 80% to pass, so studying hard is essential.

GOAL

The goal of this unit is to investigate earthquakes and plate tectonics.

OBJECTIVES

While completing this unit you will:

1. Learn what an earthquake is.
2. Investigate the causes of earthquakes.
3. Discover at what depths earthquakes occur.
4. Learn about the waves which earthquakes produce.
5. Investigate how seismographs record earthquake waves.
6. Learn how to determine the distance to the epicentre of the quake.
7. Learn how to locate the epicentre of the quake.
8. Investigate how an earthquake's magnitude is measured.

WHAT TO DO IN THIS UNIT

1. Ask your teacher for the Unit 11 Worksheets. In the textbook, read Topic 1 on p. 271, and answer the questions in Part 1 of the Unit 11 Worksheet.
2. Read Topic 2 on p. 271, and answer the questions in Part 2 of the Unit 11 Worksheet.
3. Read Topic 3 on p. 272, and answer the questions in Part 3 of the Unit 11 Worksheet.
4. Read Topic 4 on p. 272, and answer the questions in Part 4 of the Unit 11 Worksheet.
5. Read Topic 5 on p. 274, and answer the questions in Part 5 of the Unit 11 Worksheet.
6. Read Topic 6 on p. 275, and answer the questions in Part 6 of the Unit 11 Worksheet.
7. Read Topic 7 on p. 276, and answer the questions in Part 7 of the Unit 11 Worksheet.
8. Read Topic 8 on p. 277, and answer the questions in Part 8 of the Unit 11 Worksheet.

9. When you are ready, ask your teacher for the Unit 11 Test. Remember, you must get 80% to pass, so studying hard is essential.

GOAL

The goal of this unit is to learn about mountains and plate tectonics.

OBJECTIVES

While completing this unit you will:

1. Investigate active and passive continental margins.
2. Learn what happens when continents and oceans collide.
3. Learn what happens when two continents collide.
4. Learn about faults, folds, volcanics, uplifting, tilting, and overturning as features of mountains.

WHAT TO DO IN THIS UNIT

1. Ask your teacher for the Unit 12 Worksheets. In the textbook, read Topic 1 on p. 291, and answer the questions in Part 1 of the Unit 12 Worksheet.
2. Read Topic 2 on p. 291, and answer the questions in Part 2 of the Unit 12 Worksheet.
3. Read Topic 3 on p. 292, and answer the questions in Part 3 of the Unit 12 Worksheet.
4. Read Topic 4 on p. 294, and answer the questions in Part 4 of the Unit 12 Worksheet.
5. Read Topic 5 on p. 294, and answer the questions in Part 5 of the Unit 12 Worksheet.
6. Read Topic 6 on p. 296, and answer the questions in Part 6 of the Unit 12 Worksheet.
7. Read Topic 7 on p. 297, and answer the questions in Part 7 of the Unit 12 Worksheet.
8. Read Topic 8 on p. 297, and answer the questions in Part 8 of the Unit 12 Worksheet.
9. Read Topic 9 on p. 298, and answer the questions in Part 9 of the Unit 12 Worksheet.

10. When you are ready, ask your teacher for the Unit 12 Test. Remember, you must get 80% to pass, so studying hard is essential.

11. Go over your notes, tests, and worksheets from Units 9 - 12. When you are ready, ask your teacher for Cumulative Test #3 on Plate Tectonics. This test can only be written once, so good preparation is essential to do well.

GOAL

The goal of this unit is to investigate weathering and movement.

OBJECTIVES

While completing this unit you will:

1. Learn what weathering and erosion are.
2. Investigate the different types of weathering.
3. Learn about the different types of mechanical weathering.
4. Investigate chemical weathering.
5. Learn which minerals and rocks resist weathering the most.
6. Learn about the rate that weathering happens.
7. Investigate rapid and slow mass movements caused by weathering and erosion.

WHAT TO DO IN THIS UNIT

1. Ask your teacher for the Unit 13 Worksheets. In the textbook, read Topic 1 on p. 131, and answer the questions in Part 1 of the Unit 13 Worksheet.
2. Read Topic 2 on p. 131, and answer the questions in Part 2 of the Unit 13 Worksheet.
3. Read Topic 3 on p. 132, and answer the questions in Part 3 of the Unit 13 Worksheet.
4. Read Topic 4 on p. 134, and answer the questions in Part 4 of the Unit 13 Worksheet.
5. Read Topic 5 on p. 135, and answer the questions in Part 5 of the Unit 13 Worksheet.
6. Read Topic 6 on p. 136, and answer the questions in Part 6 of the Unit 13 Worksheet.
7. Read Topic 10 on p. 141, and answer the questions in Part 7 of the Unit 13 Worksheet.

8. When you are ready, ask your teacher for the Unit 13 Test. Remember, you must get 80% to pass, so studying hard is essential.

GOAL

The goal of this unit is to learn about the effects of running water on erosion.

OBJECTIVES

While completing this unit you will:

1. Investigate the energy in running water
2. Learn how running water attacks bedrock and removes weathered rock.
3. Investigate the carrying power and load of running water.
4. Investigate the shape of young river valleys, and how they are widened and lengthened.
5. Investigate divides and drainage basins.
6. Investigate stream piracy.
7. Learn about potholes and plunge pools.
8. Investigate how waterfalls recede.
9. Learn about meanders and oxbow lakes.
10. Determine why rivers deposit sediment.
11. Learn about deltas, alluvial fans, and flood plains.

WHAT TO DO IN THIS UNIT

1. Ask your teacher for the Unit 14 Worksheets. In the textbook, read Topic 1 on p. 168, and answer the questions in Part 1 of the Unit 14 Worksheet.
2. Read Topic 2 on p. 168, and answer the questions in Part 2 of the Unit 14 Worksheet.
3. Read Topic 3 on p. 170, and answer the questions in Part 3 of the Unit 14 Worksheet.
4. Read Topic 4 on p. 171, and answer the questions in Part 4 of the Unit 14 Worksheet.
5. Read Topic 5 on p. 172, and answer the questions in Part 5 of the Unit 14 Worksheet.
6. Read Topic 6 on p. 172, and answer the questions in Part 6 of the Unit 14 Worksheet.
7. Read Topic 7 on p. 173, and answer the questions in Part 7 of the Unit 14 Worksheet.
8. Read Topic 8 on p. 174, and answer the questions in Part 8 of the Unit 14 Worksheet.
9. Read Topic 9 on p. 175, and answer the questions in Part 9 of the Unit 14 Worksheet.
10. Read Topic 11 on p. 177, and answer the questions in Part 10 of the Unit 14 Worksheet.
11. Read Topic 12 on p. 177, and answer the questions in Part 11 of the Unit 14 Worksheet.
12. Read Topic 13 on p. 179, and answer the questions in Part 12 of the Unit 14 Worksheet.
13. Read Topic 14 on p. 180, and answer the questions in Part 13 of the Unit 14 Worksheet.
14. Read Topic 15 on p. 181, and answer the questions in Part 14 of the Unit 14 Worksheet.
15. Read Topic 16 on p. 183, and answer the questions in Part 15 of the Unit 14 Worksheet.

16. When you are ready, ask your teacher for the Unit 14 Test. Remember, you must get 80% to pass, so studying hard is essential.

GOAL

The goal of this unit is to investigate the effects of glaciers on erosion.

OBJECTIVES

While completing this unit you will:

1. Investigate the problem strange boulders posed for geologists.
2. Learn what a glacier is.
3. Investigate what the snow line is.
4. Determine how glaciers are born, and where they are found.
5. Investigate where ice sheets occur.
6. Learn how glaciers move, and how far.
7. Investigate how glaciers transport rock, and the marks this process leaves behind.
8. Learn how to identify a glacial valley.

WHAT TO DO IN THIS UNIT

1. Ask your teacher for the Unit 15 Worksheets. In the textbook, read Topic 1 on p. 191, and answer the questions in Part 1 of the Unit 15 Worksheet.
2. Read Topic 2 on p. 191, and answer the questions in Part 2 of the Unit 15 Worksheet.
3. Read Topic 3 on p. 193, and answer the questions in Part 3 of the Unit 15 Worksheet.
4. Read Topic 4 on p. 193, and answer the questions in Part 4 of the Unit 15 Worksheet.
5. Read Topic 5 on p. 194, and answer the questions in Part 5 of the Unit 15 Worksheet.
6. Read Topic 6 on p. 195, and answer the questions in Part 6 of the Unit 15 Worksheet.
7. Read Topic 7 on p. 196, and answer the questions in Part 7 of the Unit 15 Worksheet.
8. Read Topic 8 on p. 196, and answer the questions in Part 8 of the Unit 15 Worksheet.
9. Read Topic 9 on p. 197, and answer the questions in Part 9 of the Unit 15 Worksheet.
10. Read Topic 10 on p. 198, and answer the questions in Part 9 of the Unit 15 Worksheet.
11. Read Topic 11 on p. 199, and answer the questions in Part 9 of the Unit 15 Worksheet.

12. When you are ready, ask your teacher for the Unit 15 Test. Remember, you must get 80% to pass, so studying hard is essential.

GOAL

The goal of this unit is to investigate how wind, waves and currents are agents of erosion.

OBJECTIVES

While completing this unit you will:

1. Learn how winds can be agents of erosion
2. Investigate the composition of sand dunes and how they are formed and move.
3. Learn about the characteristics of waves.
4. Discover how waves break on a shore.
5. Learn how waves are agents of erosion
6. Learn how currents and waves erode a beach.
7. Investigate how waves erode rock materials.

WHAT TO DO IN THIS UNIT

1. Ask your teacher for the Unit 16 Worksheets. In the textbook, read Topic 1 on p. 211 and answer the questions in Part 1 of the Unit 16 Worksheet.
2. Read Topic 2 on p. 211, and answer the questions in Part 2 of the Unit 16 Worksheet.
3. Read Topic 3 on p. 212, and answer the questions in Part 3 of the Unit 16 Worksheet.
4. Read Topic 4 on p. 212, and answer the questions in Part 4 of the Unit 16 Worksheet.
5. Read Topic 5 on p. 213, and answer the questions in Part 5 of the Unit 16 Worksheet.
6. Read Topic 6 on p. 214, and answer the questions in Part 6 of the Unit 16 Worksheet.
7. Read Topic 7 on p. 215, and answer the questions in Part 7 of the Unit 16 Worksheet.
8. Read Topic 9 on p. 217, and answer the questions in Part 8 of the Unit 16 Worksheet.
9. Read Topic 10 on p. 218, and answer the questions in Part 9 of the Unit 16 Worksheet.
10. Read Topic 11 on p. 220, and answer the questions in Part 10 of the Unit 16 Worksheet.
11. When you are ready, ask your teacher for the Unit 16 Test. Remember, you must get 80% to pass, so studying hard is essential.
12. Go over your notes, tests, and worksheets from Units 13 - 16. When you are ready, ask your teacher for Cumulative Test #4 on Weathering & Erosion. This test can only be written once, so good preparation is essential to do well.

Congratulations! You've finished Earth Science 11!