

Grade 4 Language
Soil

Student Name: _____

Class: _____

Date: _____

Instructions: **Read each question carefully and circle the correct that best completes each sentence.**

1. Fill in the blank.

_____ soil feels gritty and allows water and air to move through it.

- A. Silt
- B. Clay
- C. Sandy
- D. Organic

2. Fill in the blank.

The bottom layer, about three feet below the surface in the Midwest is called _____. It is more compact and often has stones and rocks in it.

- A. Parent Material
- B. Subsoil Layer
- C. Topsoil
- D. Silt

3. Fill in the blank.

_____ feels like flour when dry and is very smooth and soft when moist.

- A. Clay soil
- B. Silt
- C. Sandy soil
- D. Topsoil

4. About how many years does it take to form one inch of topsoil?

- A. 100 years
- B. 30 years
- C. 200 years
- D. 500 years

5. Fill in the blank.

_____ enrich topsoil by feeding on organic material in the soil and converting it into nutrients for plants.

- A. Worms
- B. Animals
- C. People
- D. Fertilizers

6. Fill in the blank.

_____ is found in the soil but only a small amount is available to plants.

- A. Phosphorus
- B. Nitrogen
- C. Potassium
- D. Fertilizer

7. Fill in the blank.

_____ helps plants store and use energy from the sun to make food for themselves.

- A. Phosphorus
- B. Fertilizer
- C. Potassium
- D. Nitrogen

Grade 4 Writing
Soil

Student Name: _____

Class: _____

Date: _____

Instructions: **Read the question carefully and write your answer below.**

Extended Response

The Great Ice Age was important to agriculture and soil. Explain why it was important and how it relates to soil. Be sure to include information from other sources.

Grade 4 Science
Soil

Student Name: _____

Class: _____

Date: _____

Instructions: **Read each question carefully and circle the correct answer.**

1. Which of the following is listed in the correct order from the top layer of soil to the bottom layer?

- A. Topsoil, Subsoil, Parent Material
- B. Topsoil, Parent Material, Subsoil
- C. Subsoil, Parent Material, Topsoil
- D. Parent Material, Subsoil, Topsoil

2. Fill in the blank.

Horizon O is the _____.

- A. bedrock
- B. topsoil
- C. subsoil
- D. sandy soil

3. Fill in the blank.

Horizon R is the _____.

- A. sandy soil
- B. topsoil
- C. bedrock
- D. subsoil

4. After performing the Soil Slurry experiment, what should the three final layers, starting from top to bottom, look like?

- A. Clay, Silt, Sand
- B. Sand, Silt, Clay
- C. Silt, Sand, Clay
- D. Clay, Sand, Silt

5. Fill in the blank.

Topsoil is the upper, outermost layer of soil, usually the top_____ inches.

- A. 1-5
- B. 2-8
- C. 3-12
- D. 5-10

6. Give one reason why farmers add potassium fertilizer to the soil?

- A. Potassium fertilizer helps plants survive droughts
- B. Potassium fertilizer helps plants survive diseases
- C. Potassium fertilizer helps plants survive very hot and cold temperatures
- D. All of the above

7. Fill in the blank.

Nitrogen is found in the _____.

- A. air
- B. soil
- C. air and soil
- D. none of the above

Grade 4 Social Studies
Soil

Student Name: _____

Class: _____

Date: _____

Instructions: **Read each question carefully and circle the correct answer.**

1. Which is the Illinois state soil?

- A. Bama
- B. Windsor
- C. Drummer
- D. Miami

2. Approximately, when did the Great Ice Age begin?

- A. 1.6 million years ago
- B. 500 thousand years ago
- C. 1 million years ago
- D. 2 million years ago

3. Fill in the blank.

_____ eventually flattened the land and left behind rich deposits that became the soils on which farmers have grown their crops for thousands of years.

- A. Rocks
- B. Glaciers
- C. Sand
- D. Clay

4. Fill in the blank.

Soil acts as a _____ for underground water, filtering out pollutants.

- A. Deposit
- B. Tunnel
- C. Home
- D. Filter

5. Fill in the blank.

The worst of the dust storms took place on April _____ which came to be known as “Black Sunday.”

- A. 14th
- B. 28th
- C. 1st
- D. 5th

6. What year did the Dust Bowl drought come to an end?

- A. 2000
- B. 1802
- C. 1931
- D. 1939

7. What year did the Soil Conservation Service begin promoting soil-conserving practices like crop rotation, strip cropping and terracing?

- A. 1935
- B. 2010
- C. 1876
- D. 2015

Grade 4 Math
Soil

Student Name: _____

Class: _____

Date: _____

Instructions: **Read each question carefully and circle the correct answer.**

1. Approximately what percentage of the world's carbon dioxide emissions are stored in soil?

- A. 20%
- B. 10%
- C. 30%
- D. 40%

2. Soil has _____ layers called horizons (O,A,E,B,C and R).

- A. 3
- B. 4
- C. 6
- D. 8

3. If mineral matter, water and organic matter make up 75% of the soil, what percentage does air make up?

- A. 25%
- B. 45%
- C. 5%
- D. 20%

4. Fill in the blank.

About _____ of soil is made up of pores full of air and water.

- A. one-third
- B. one-half
- C. one-fourth

5. Fill in the blank.

About 45% of soil is made up of _____.

- A. Water
- B. Mineral Matter
- C. Air
- D. Organic Matter

6. If approximately 10 percent of the world's carbon dioxide emissions are stored in soil, what percentage is left out of the soil?

- A. 80%
- B. 75%
- C. 10%
- D. 90%

7. How many years did the Dust Bowl last from beginning to end?

- A. 8
- B. 5
- C. 10
- D. 6

Answer Key:

Language

1. C
2. A
3. B
4. D
5. A
6. C
7. A

Science

1. A
2. B
3. C
4. A
5. B
6. D
7. C

Social Studies

1. C
2. A
3. B
4. D
5. A
6. D
7. A

Math

1. B
2. C
3. A
4. B
5. B
6. D
7. A