

Grade Level 5-8

Length of Lesson

45 minutes

Objective

By the end of this lesson, students will be able to demonstrate through writing how soil interconnects with all living things.

Materials Needed

- Soil Quotes
- Copies of student
 Worksheet

Standards

<u>Common Core</u> CCSS.ELA-Literacy.RI.4.3; RI.4.4; RI.4.5; RF.4.3a; SL.4.1; W.4.2; W.4.6; W.4.7; W.4.8

<u>NGSS</u> 3-LS4-4; 3-LS3-2; 5-ESS3-1

SAY IT WITH SOIL!

Lesson Summary

This lesson is designed to help students learn about quotes from our history that highlight information about soil.

Suggested Sequence of Events:

- 1. <u>Set Up</u>: Cut the soil quotes from the attached pages into strips. Laminate for multiple uses.
- 2. Read "<u>This Land is Your Land</u>" by Woody Guthrie to set up a conversation about history and the land.
- 3. Read through IAITC Soil Ag Mag to learn more about soil and its history. Interactive online versions can be found on our website.
- 4. Complete the activity following the procedures:
 - Hand out the student worksheet and distribute one quote to each student.
 - Have students read the soil quote and answer the questions on the student worksheet.
 - What does the quote mean to me?
 - What did this quote mean to the author?
 - Has this quote withstood the passage of time
 - Why or why not?
 - Is this quote relevant in today's world?
 - Why or why not?
- 5. Have students share their writing with a partner, small groups, or the entire class.



TEACHER RESOURCES

Extension Ideas:

- Have students read through all the quotes and choose their favorite. Why did they choose that quote? What does it mean to them?
- Have students create their own say it with soil quotes.
- Have students create a Bio Cube about one of the authors of the quotes.
 - Students can go to <u>http://www.readwritethink.org/files/resources/interactives/</u> <u>cube_creator/</u> to fill out their own Bio Cube.
 - A few examples of authors to choose would be: George Washington, Franklin D. Roosevelt, Walt Whitman, etc.
- Invite an Illinois farmer into the classroom to talk to your class about soil health and sustainability within agriculture.
- Have students participate in a "Living Wax Museum". They can dress up as the person they researched for their bio cube and then perform a short monologue for their peers.
- Have students write a paper about one or two of the quote authors.
- Read "<u>Sand and Soil: Earth's Building Blocks</u>," by Beth Gurney, and "<u>A Handful of Dirt</u>," by Raymond Bial, to teach students more about soil, its properties, and its importance to our planet.
- Complete our lesson "Soil Slurry" to deepen your student's understanding of soil properties.
- Go to <u>agintheclassroom.org</u> to contact your County Literacy Coordinator for free classroom sets of our Ag Mags!





SOIL QUOTES

Aldo Leopold 1949	We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect.
Walt Whitman 1855	I bequeath myself to the dirt, to grow from the grass I love; If you want me again, look for me under your boot soles.
Chief Seattle 1854	We are part of the earth and it is part of usWhat befalls the earth befalls all the sons of the earth.
Charles Kellogg 1956	Each soil has had its own history. Like a river, a mountain, a forest, or any natural thing, its present condition is due to the influences of many things and events of the past.
Charles Kellogg 1956	Nature has endowed the earth with glorious wonders and vast resources that man may use for his own ends. Regardless of our tastes or our way of living, there are none that present more variations to tax our imagination than the soil, and certainly none so important to our ancestors, to ourselves, and to our children.
Friedrich Nietzche 1870s –1880s	Man and man's earth are unexhausted and undiscovered. Wake and listen! Verily, the earth shall yet be a source of recovery. Remain faithful to the earth, with the power of your virtue. Let your gift- giving love and your knowledge serve the meaning of the earth.
William Bryant Logan 1996	We spend our lives hurrying away from the real, as though it were deadly to us. "It must be somewhere up there on the horizon," we think. And all the time it is in the soil, right beneath our feet.





SOIL QUOTES

George Washington July 20, 1794	I know of no pursuit in which more real and important services can be rendered to any country than by improving its agriculture.
David Ben Gurion, Hazon VeDerek 1950s	The soil is the source of life, creativity, culture and real independence.
Aldo Leopold 1949	There are two spiritual dangers in not owning a farm. One is the danger of supposing that breakfast comes from the grocery store, and the other that heat comes from the furnace.
Franklin D. Roosevelt 1937	A nation that destroys its soil, destroys itself.
Aldo Leopold 1949	A conservationist is one who is humbly aware that with each stroke he is writing his signature on the face of the land.
Daniel Webster 1840	When tillage begins, other arts follow. The farmers, therefore, are the founders of human civilization.
Wendell Berry 1995	If in the human economy, a squash in the field is worth more than a bushel of soil, that does not mean that food is more valuable than soil; it means simply that we do not know how to value the soil. In its complexity and its potential longevity, the soil exceeds our comprehension; we do not know how to place a just market value on it, and we will never learn how. Its value is inestimable; we must value it, beyond whatever price we put on it, by respecting it.





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SOIL QUOTES

Charles E. Kellogg 1938	Essentially, all life depends upon the soilThere can be no life without soil and no soil without life: they have evolved together.
Ed Begley late 1900s	I saw all the people hustling early in the morning to go into the factories and the stores and the office buildings, to do their job, to get their check. But ultimately it's not office buildings or jobs that give us our checks. It's the soil. The soil is what gives us the real income that supports us all.
Justin Isherwood 1990	Plowed ground smells of earthworms and empires.
Hugh H. Bennett and W.C. Lowdermilk 1930s	Soil erosion is as old as agriculture. It began when the first heavy rain struck the first furrow turned by a crude implement of tillage in the hands of prehistoric man. It has been going on ever since, wherever man's culture of the earth has bared the soil to rain and wind.
Wallace H. Fuller 1975	A cloak of loose, soft material, held to the earth's hard surface by gravity, is all that lies between life and lifelessness.
R.S. Smith 1928	I cannot conceive of the time when knowledge of soils will be complete. Our expectation is that our successors will build on what has been done, as we are building on the work of our predecessors.
C.E. Millar & L.M. Turk 1943	Soils are developed; they are not merely an accumulation of debris resulting from decay of rock and organic materialsIn other words, a soil is an entity – an object in nature which has characteristics that distinguish it from all other objects in nature.





SAY IT WITH SOIL

STUDENT WORKSHEET

1. My Quote:
2. What does this quote mean to me?
3. What did this quote mean to the author?
4. Has this quote withstood the passage of time? Why or why not?
5. Is this quote still relevant to today's world? Why or why not?

