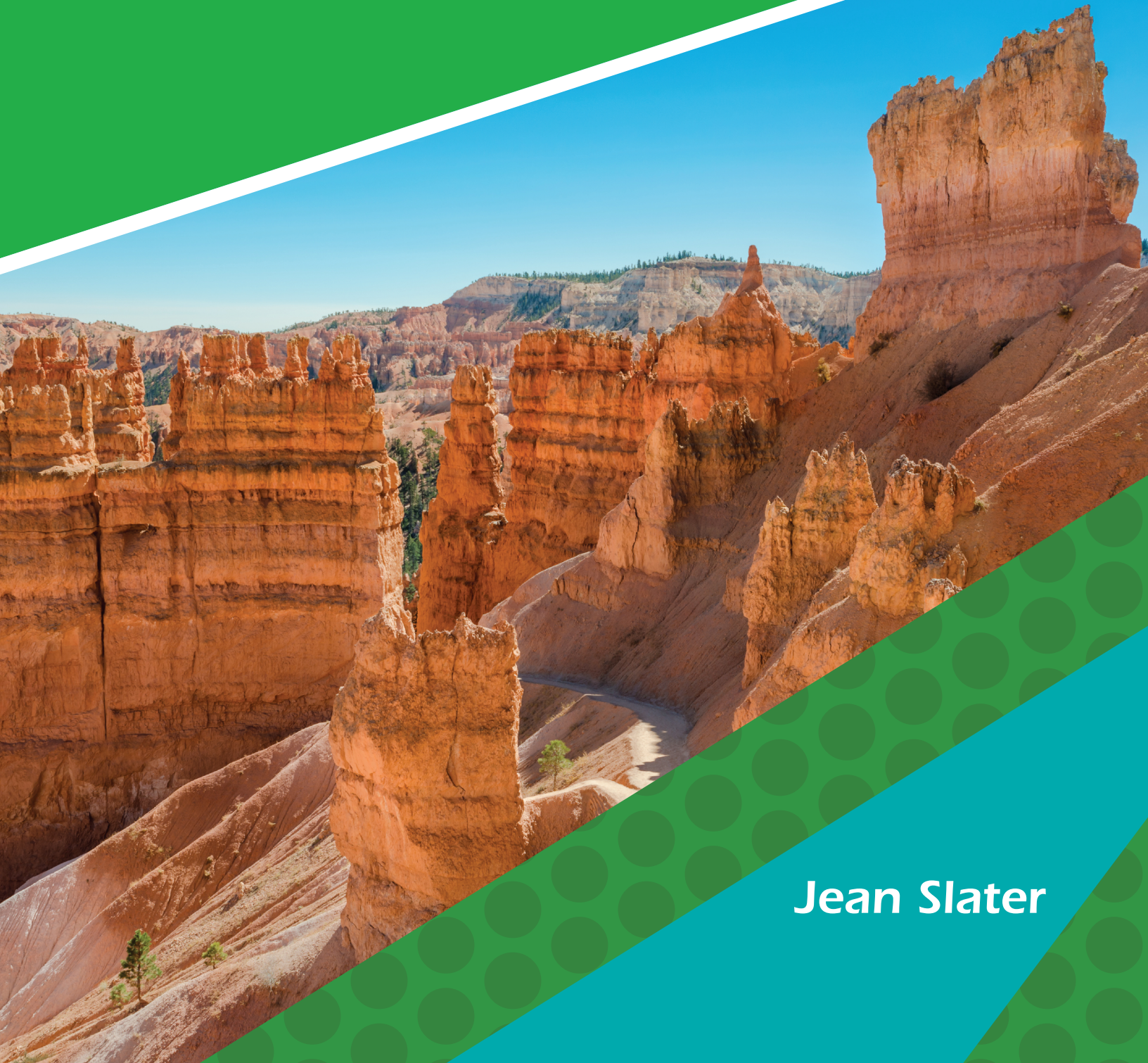


Attainment's
Simply Earth Science



Jean Slater

Attainment's **Simply Earth Science** Student Book

By Jean Slater

Edited by René Zelt

Cover Design by Josh Eacret

An Attainment Company Publication

© 2018 by the Attainment Company, Inc. All rights reserved.

Printed in the United States of America

ISBN: 978-1-57861-376-2

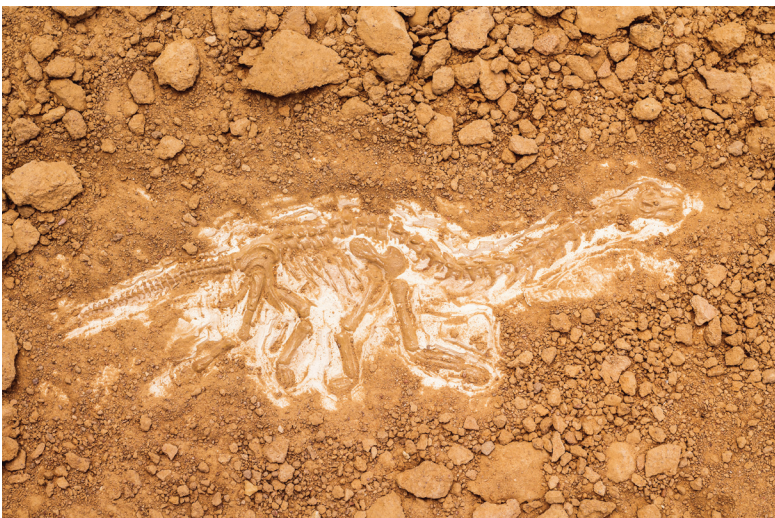


P.O. Box 930160 ▪ Verona, Wisconsin 53593-0160 USA
1-800-327-4269 ▪ www.AttainmentCompany.com



Contents

Unit 1 Earth Science 1	1
Chapter 1 Learning About Rocks	3
Chapter 2 Earth Material - Soil	37
Chapter 3 We Need Water	63
Chapter 4 What Are Minerals?	99
Chapter 5 Life on Earth - A Long, Long Time Ago	115
Unit 2 Earth Science 2	139
Chapter 6 Inside the Earth	141
Chapter 7 The Surface of the Earth	157
Chapter 8 Shake, Rattle, and Roll	189
Chapter 9 Wearing Down the Earth	215
Chapter 10 Building Up of Earth	241



Vocabulary



boulder



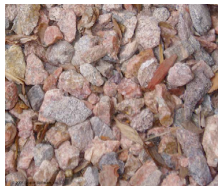
clay



cobbles



Earth materials



gravel



igneous



metamorphic



minerals



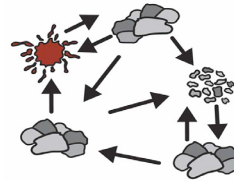
nature



pebbles



rock



rock cycle



sand



sedimentary

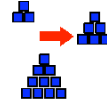


silt

Vocabulary Definitions

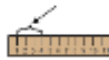


boulder



10

A large rock that is more than 10



inches across.



clay



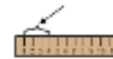
The smallest kind of rock.



cobbles



2 $\frac{1}{2}$

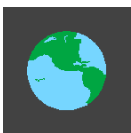


10

Rocks that are 2 $\frac{1}{2}$ inches to 10



inches in size.



Earth materials



&



Rocks, soil, water, minerals, and air.



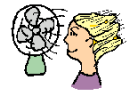
gravel



Rocks that are smaller than pebbles.



igneous



Rocks that form when very hot rocks cool.



metamorphic



Rocks formed from other kinds of rock



because of pressure and heat.



minerals



Found in nature, but



or



animals.



nature

Anything that has not been made by man.



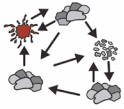
pebbles

Rocks that are $\frac{1}{6}$ inch to $2\frac{1}{2}$ inches.



rock

Hard, solid material that covers the Earth.



rock cycle

Rocks come from other rocks.



sand



Very

small



pieces of



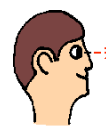
rock



you



can



see



with

your



eyes.



sedimentary



Rocks

formed



when



sand,



small



rocks,

&

and



living



things

are



pressed



together.



silt



Pieces of



rock

so



small



you



must



look at

at



them

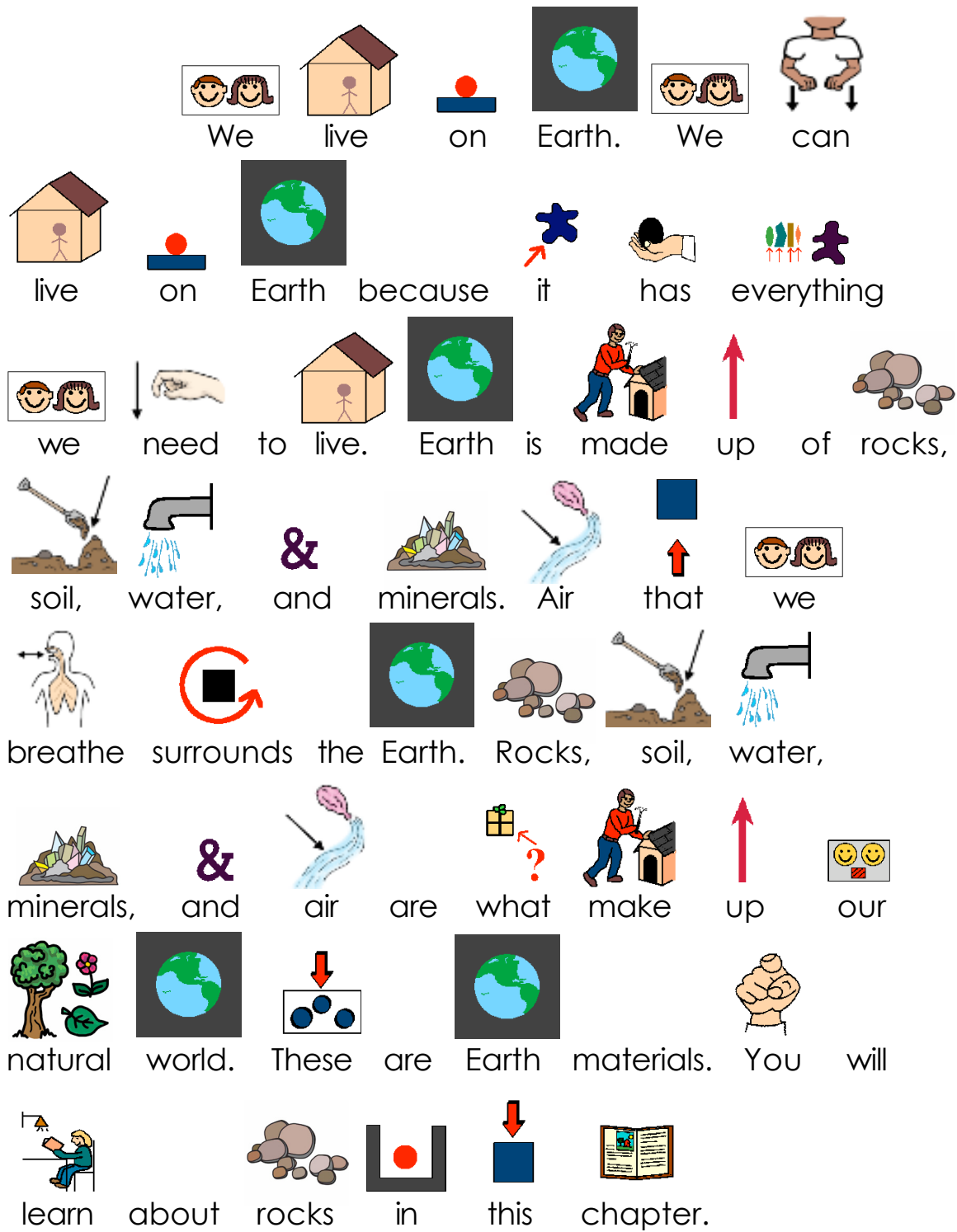


through a



magnifying

glass.





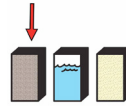
Earth is Covered with Rock



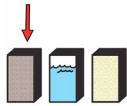
Rock is hard.



Rock is solid.



If something



is solid,



it

means that



it

is



not

hollow.



It

is



hard

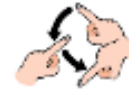


and

firm.



You



cannot

bend a



rock.



You



cannot



squeeze a



rock



and



change



its



shape.



It



does



not

matter if a



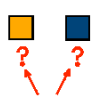
rock



is very



small



or



very



big.



It

is

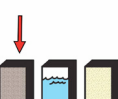


hard.



It

is



solid.




 The entire planet Earth is covered in rock. In


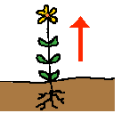








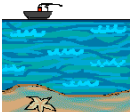








 some parts of our world the rock is covered by




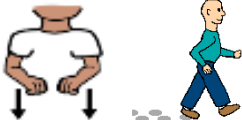




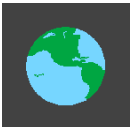



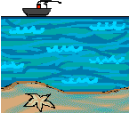


 soil which allows plants to grow. In other















 parts of the world, the rock is covered by oceans













 or lakes. In mountains and deserts the rock

is bare.











 You can walk on any part of the








 Earth, or sail on the oceans, and if you

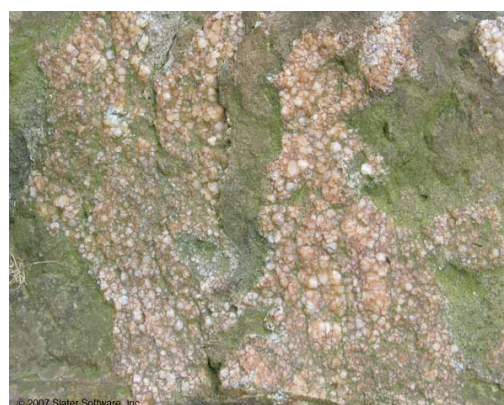









 dug down far enough, you will get to rock.

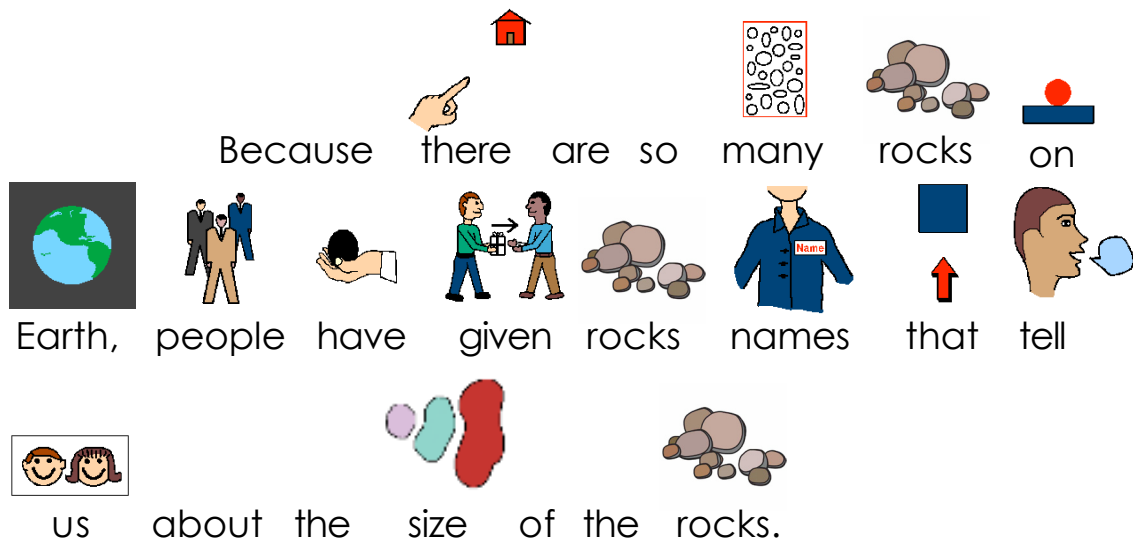


 There is always
 
 rock
 

 under
 
 you.


 All
 
 rocks are
 
 hard and
 
 &
 
 solid. But



 rocks do not
 
 look
 
 the same.
 
 There are
 
 many
 
 kinds


 of rocks.





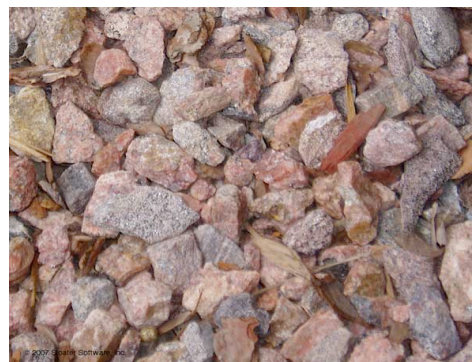
Boulder



Cobbles



Pebbles



Gravel



Sand



Silt



Clay



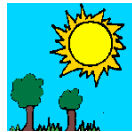
People Use Rocks



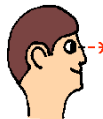
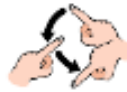
Rocks are very useful to us. Buildings



are often made of rocks. You may be able to see



rocks on the outside of buildings.



Even if you cannot see rocks in a building,



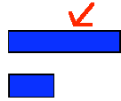
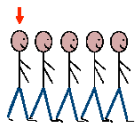
they were most likely used to build your home,



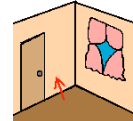
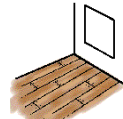
&



your school, and office buildings . Buildings made with rocks



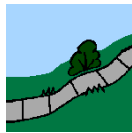
last a very long time because rock is so strong.



There are rocks in cement floors, walls,

&

and sidewalks.





People use rocks to keep dirt on hills from



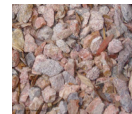
washing away.



Big rocks are crushed to make smaller



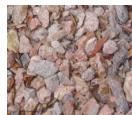
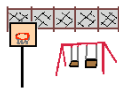
rocks that are used on roads and driveways.



The rock in some driveways is called gravel.



Gravel is also found on playgrounds. Does your



playground have gravel on it?



Some kinds of rocks are used to make



sculptures and memorials. Marble is a good rock



to use for sculptures.



Lincoln Memorial



Rocks



have



minerals



in



them.

Minerals



are

found



in



nature,



but they

are



not



plants



or



animals.



Gold, salt,



iron,



diamonds,



and



copper



are



all minerals.



People



discovered



that



when



rocks



are heated



the minerals



come



out

of the



rocks.



The minerals



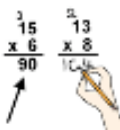
are used to



make



many things.



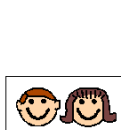
For example,



from the mineral



iron



we



make



steel

which



is used



in bridges





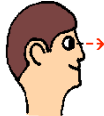




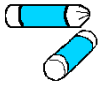
and







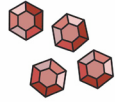


buildings.

 We
  make
  tools
  and
  machinery
  from iron.

 Aluminum
  is a mineral
  that
  we
  see
  every
  day

 in
  soda cans.
  It is also used
  in
  cars.
  Chalk

 is a mineral
  that
  is used
  in
  school.
  Diamonds,
  rubies,

 and
  other
  minerals
  are
  made into
  jewelry.