

Soil Clues

Classify soil by what you can see and test.

SC.2.E.6.3 "Classify soil types based on color, texture (size of particles), the ability to retain water, and the ability to support the growth of plants."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each soil name. Circle the words that tell its color, particle size or feel, water holding, and plant growth.

Three Garden Soils

- ① At a garden, children tested three soils. Sandy soil was light colored and felt gritty. Its large particles left spaces for water to drain quickly. It did not keep much water, so thirsty plants had trouble growing.
- ② Another sample was reddish brown clay. It had very tiny particles and felt smooth when wet. Water stayed in clay longer than in sand. Clay can pack tightly, leaving little air for roots. Some plants grow in it, but packed clay can make growth hard.
- ③ Loam is often dark and crumbly. It has a mix of particle sizes. Loam holds some water for plants, yet extra water can move through it. Its air spaces and water help many garden plants grow well.

2

ANSWER WITH EVIDENCE

Use the passage

1

Which soil has large, gritty particles and drains water quickly?

2

How does clay hold water differently from sand?

3

Name two clues that show loam can support many garden plants.

3

YOUR TURN

Your own words

Create three new soil-sample rows. For each soil type, show a color, texture or particle size, how much water it retains, and how well it supports plants.

SOIL TYPE AND COLOR	TEXTURE OR PARTICLE SIZE	WATER RETAINED	PLANT SUPPORT

PART 1 • READ AND MARK

Underline each soil name. Circle the words that tell its color, particle size or feel, water holding, and plant growth. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Which soil has large, gritty particles and drains water quickly?	Sandy soil.
2	How does clay hold water differently from sand?	Water stays in clay longer. Sand drains water quickly and keeps little water.
3	Name two clues that show loam can support many garden plants.	Loam holds some water, has air spaces, and lets extra water move through it. Any two clues are correct.

PART 3 • YOUR TURN (SAMPLE ANSWER)

SOIL TYPE AND COLOR	TEXTURE OR PARTICLE SIZE	WATER RETAINED	PLANT SUPPORT
Yellow sand	Large, gritty particles	Keeps little water	Poor for plants needing lots of water
Red-brown clay	Tiny, smooth particles	Keeps much water	Can support some plants, but may pack tightly
Black loam	Mixed particle sizes, crumbly	Keeps some water	Supports many plants

Accept accurate soil descriptions that connect particle size and water retention to plant growth. Soil colors can vary, but the student should give a reasonable color and classify each sample using all four properties.