

The Mountain of Stone

ACTIVITY 7

Objective:

To understand what aggregates are and how they are used.

Vocabulary:

aggregates, wallboard, warehouse, concrete, cement, stucco

Materials:

- Copy of the word search for each student
- *The Mountain of Stone* song

Check for Understanding:

Hand out *Hitchrock's Word Search* and have the students review the word list. Are there any other items included on the list that they have not placed on their original brainstormed list of uses of aggregates? Add them and then have students complete the word search.

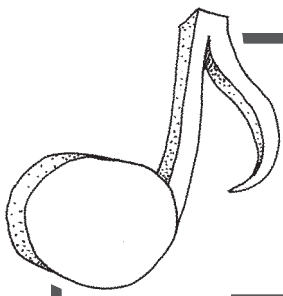
Introduction:

"Aggregate" refers to any combination of sand, gravel, and crushed stone in their natural or processed state. Crushed stone may be composed of limestone, granite, trap rock or any other hard, sound rock that is frequently produced by blasting and then crushing.

Procedures:

1. Ask the students what materials are used to build a road. (The sub-base of a road is made out of aggregates. The basic paving materials, concrete and asphalt, are composed primarily of crushed stone, sand and gravel, and crushed rock.)
2. Discuss aggregates with the students. Point out that since the nation was first settled, the production of aggregates has contributed to our quality of life. See how many things students can brainstorm that use aggregates in their construction. List them on the board or on a poster under the heading "Uses of Aggregates."
3. Aggregates are the resources that provide safe and efficient highways. They provide the community with construction materials for new libraries, schools, and hospitals. More than 80 percent of a concrete sidewalk and more than 90 percent of asphalt pavement is aggregate. Paint, paper, plastics, vinyl, and glass all require sand, gravel, or crushed stone products as part of their manufacturing.

Crushed stone, ground into a powder is used as an important mineral supplement in our agriculture industry. Large material, called "rip rap," is used to prevent erosion along rivers and shorelines.
4. Play *The Mountain of Stone* for the students and have the students sing along with the song. Add any items to the students' "Uses of Aggregates" list that they hear in the song and failed to mention previously.



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HITCHROCK'S WORD SEARCH

G X L I B R A R Y L W A S Z B P T
S N S L N N U W E A A C H U R C H
R O C K A R Y M L V H V C Q Y U J
J I R T R M T L H O S P I T A L P
S T U C C O B B O T K Y Y P W N S
T A S B A O X L M N C C E M E N T
I D H E A N O E G D I R B O V D L
K N E R S K A Y O T R L H E I F E
L U D I Q U F L G R B I D Y R E V
A O S A F Y O K T U G Z S A D T A
W F T P M M Q H N H T Z T W O E R
E D O D I C O N W E C T R N P R G
D V N T O P L A V P W L E U A C A
I A E W S K Y S C R A P E R E N C
S O E S U O H E R A W L T J E O N
A G G R E G A T E S R X C N W C O

WORD LIST

aggregates
driveway
bridge
church
highway
runway
skyscraper
dam
sidewalk
house

road
street
gutter
stucco
brick
wallboard
concrete
canal
foundation
warehouse

library
school
hospital
mall
rock
crushed stone
cement
gravel
sand

