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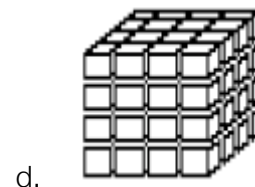
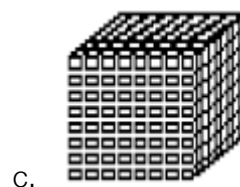
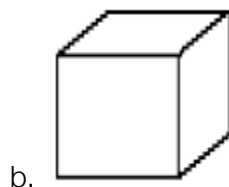
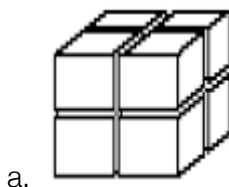
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# Surface Processes

The Physical Setting: Earth Science

## Worksheet: Weathering and Soils

- Which is the best example of physical weathering?
  - the cracking of rock caused by the freezing and thawing of water
  - the transportation of sediment in a stream
  - the reaction of limestone with acid rainwater
  - the formation of a sandbar along the side of a stream
- A large rock is broken into several smaller pieces. Compared to the rate of weathering of the large rock, the rate of weathering of the smaller pieces is
  - the same
  - less
  - greater
- Which change in the climate of New York State would most likely cause the greatest increase in chemical weathering of local bedrock?
  - lower humidity in winter
  - greater precipitation in summer
  - lower temperature in winter
  - higher atmospheric pressure in summer
- Four samples of the same material with identical composition and mass were cut as shown in the diagrams below. When subjected to the same chemical weathering, which sample will weather at the fastest rate?



- Which is not an example of chemical weathering?
  - The oxidation of a nail left outside for an extended about of time.
  - A tombstone that has had the letters washed away by acid rain.
  - The enlarging of a pothole from cycles of freezing and thawing.
  - An underground cave created from carbonic acid.
- Which change is most likely to occur in a landscape if its climate changes from humid to arid?
  - Wind will become a more important agent of erosion.
  - Surface features will become more rounded.
  - Chemical weathering will increase.
  - Vegetation will increase.