

1 Describe one of the processes that could be used to separate a mixture of iron filings, wood shavings, and salt. Be sure to include all steps.

Rubric

Key Elements:

any response indicating separating the iron filings (e.g., using a magnet)

any response indicating separating the wood shavings (e.g., *adding water to dissolve the salt and filtering off the wood shavings*)

any response indicating separating the salt (e.g., *evaporating the water*)

Score Points

2 pointscomplete separation1 pointpartial separation0 pointsno separation

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Standard 2: Physical Science Benchmark 2.1.2: Separating mixtures of substances based on their properties. Subcontent Area: chemistry



2 Study the food chain shown below.



What two pieces of information about the caddisfly does this food chain provide?

1)_____ 2)____

Explain the effects on the algae and stonefly populations in this food chain if all the caddisflies were killed by a disease. Base your explanations on the food chain.

Algae_____Stonefly_____

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Item 2

Rubric

Key Elements:

any two of the following:

- Caddisflies eat algae.
- Stoneflies eat caddisflies.
- It tells us what caddisflies eat.
- the feeding relationship
- the flow of energy/matter from caddisfly to stonefly
- the flow of energy/matter from algae to caddisfly
- where the caddisflies get their energy

Algae: increase

AND

Stonefly: decrease

Score Points

2 points	two key elements
1 point	one key element
0 points	other

Standard 3: Life Science Benchmark 3.1.3: Creating and interpreting food chains and food webs. Subcontent Area: not classified



3 Describe one natural process that plays a key role in the formation of **sedimentary** rock.

Describe one natural process that plays a key role in the formation of **metamorphic** rock.

Rubric

Key Elements:

any process that describes one of the following:

- cementation
- compaction
- deposition
- erosion
- transportation
- weathering

one of the following:

- heat
- pressure
- chemical transformation/change

Score Points

2 points	two key elements
1 point	one key element
0 points	other

Standard 4: Earth and Space Science

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Benchmark 4.1.1: Explaining how minerals, rocks, and soils form. Subcontent Area: earth science

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