Name: _____ Group: _____ Date: _____

Separation of mixtures

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1. What is a mixture?

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_____

2. Can the constituents of a mixture be separated without changing their nature?

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3. Name two factors that will determine the technique used to separate a mixture.

_____

_____

4. Match each mixture separation technique with its description.

Mixture separation technique	Description
a) Centrifugation (e.g. to separate the cells and fluid portion of blood)	1. The constituents of the mixture are separated by gravity.
b) Distillation (e.g. to separate a mixture of water and alcohol)	2. The constituents of the mixture are separated by gravity in an apparatus spinning at high speed.
c) Screening (e.g. to separate a mixture of beads and sand)	3. The mixture is put through a sieve with holes of a specific size that keep larger particles from passing through.
d) Decantation (e.g. to separate a mixture of oil and vinegar)	4. The mixture passes through a filter that holds back the solid constituents and lets the liquid constituents pass through.
e) Filtration (e.g. to separate a mixture of water and soil)	5. The solid constituent of a mixture is collected once the liquid constituent has evaporated at ambient temperature.
f) Evaporation (e.g. to separate a mixture of water and salt)	6. The mixture is heated until boiling, then the gas that is produced is collected, cooled and liquefied.

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