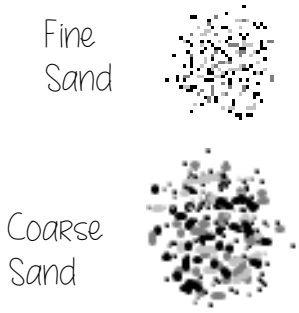
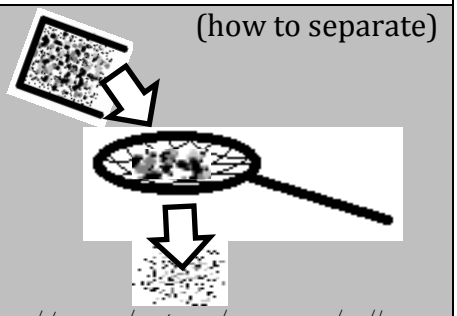
Name _____ Date _____ Period _____

Separation Lab

Directions: At your station you find 2 substances. You need to mix both substances, and separate them back out in 10 minutes. In each box…

1) Draw a picture of each substance.
2) Label the substances.
3) Draw the mixture.
4) Draw how to separate the mixture (with a label).
5) Write which property is being used to separate the substances.

Station 1 – with example drawings		
(substances)	(combined)	(how to separate)
		
Station 2		
(substances)	(combined)	(how to separate)
Station 3		
(substances)	(combined)	(how to separate)

Station 4		
(substances)	(combined)	(how to separate)
Station 5		
(substances)	(combined)	(how to separate)
Station 6		
(substances)	(combined)	(how to separate)

Exit Question: Explain how you would separate a mixture of saltwater, sand, and iron filings. Number your steps.

Teacher Notes:

Station Setups

Station	1st 50 mL beaker	2nd 50 mL beaker	Other material on table	property being used to separate
1	~ 40 mL of coarse sand	~ 40 mL of fine sand	Fine strainer	particle size
2	~ 40 mL of fine sand	~ 40 mL of water	coffee filter	state of matter
3	~ 1-2 mL of salt	10 mL of water	goggles + hot plate	boiling point (evaporation)
4	~ 30 mL of iron filings	~ 30 mL of fine sand	magnet	magnetism
5	~ 20 mL of blue fish gravel	~ 20 mL coarse sand	nothing	color
6	~ 50 mL of popcorn kernels	~ 50 mL of coarse sand	coarse strainer	particle size

- Amounts used are appropriate for groups to finish within the 10 minute time limit
- Display a timer, set for 10 minutes with an alarm
- For station 3, only two beakers are needed. Teacher uses the hot plate on the lab table.
    - Use an oven mitt to handle the hot beaker
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