Separation of Mixtures – Solids
Procedure:

1. Dump the mixture out on a sheet of paper and spread the mixture out.
2. Using the material provided, separate the iron filings from the rest of the mixture. **(DO NOT TAKE THE MAGNET OUT OF THE BAG)** Put the iron filings on a separate sheet of paper.
    a. What did you use to separate the iron from the rest of the mixture? a _____
    b. What **physical property of the iron** did you use to separated it from the mixture?_____
3. Pour the remaining mixture, **SAND and SALT**, into a test tube and fill it about half way with water. Now **you have a mixture of Sand, Salt and Water**. Stopper and shake well.
    a. Look at the test tube what kind of mixture is it, **solution, colloid, or suspension**?
    b. What happened to the sand in the mixture: **(you may need to pick more than one)**
        i. did it dissolve, not dissolve, sink, float
    c. What happened to the salt in the mixture: **(you may need to pick more than one)**
        i. did it dissolve, not dissolve, sink, float
4. Wet the coffee filter and put it in the funnel, put the funnel in a clean beaker. Shake the test tube and pour the mixture into the filter. You may need to rinse it again.
    a. Which part of the mixture the **sand, salt or water** stayed in the filter?
    b. Which physical property allowed you to separate the sand from the mixture _____
        i. Why did it get stuck in the filter, which physical property? _____
    c. Which part of the **sand, salt and water** mixture came through the filter?
    d. The mixture maybe a little dirty because we are only using a coffee filter.
    e. What physical property allowed you to separate the salt from the mixture, think which property allowed the salt pass through the filter? _____
5. We started with a mixture of Iron filings, Sand and Salt. Which parts of that mixture have you separated so far? **Iron filings, Sand and Salt and Water** (What did we separate in the steps above)
6. What substances, in the beaker, still need to be separated? **Iron filings, Sand and Salt and Water**
7. How could you separate these substances? _____
    a. Which **physical property** would you be using to separate the **salt from the water**?
    _____

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