

Iron filings, sand and salt

This task is about planning and carrying out an investigation.

Equipment list

- mixture of equal parts of iron filings, sand, and salt
- water
- funnel
- filter paper
- 2 glass jars or ice cream containers
- a magnet.

Using some or all of the equipment above, think about how you could separate the iron filings from the rest of the sand and salt mixture.

a) Using some or all of the equipment above, separate the iron filings from the rest of the sand and salt mixture.

Write down in the space below how you did this.

How I did this:

b) Now use some or all of the equipment to separate the sand from the salt.

Write down in the space below how you did this.

How I did this:

c) In science, properties of a material describe how it looks and how it behaves.

Explain which properties of the iron filings, sand, and salt you used to separate them from each other.

Fill in the table below with your answers.

Material	Feature that allowed each material to be separated
Iron filings	
Sand	
Salt	

Student Self-Assessment

Give yourself a rating for each of the questions. Write some reasons why you gave yourself this rating.

The ratings are:

1 = Yes - I successfully did this.

2 = I tried to do this and did a pretty good job, but I think I could do better.

3 = No - I did not do this successfully, I need to do more work.

Did I read and follow the instructions?

☐ 1 = Yes - I successfully did this.	☐ 2 = I tried to do this and did a pretty good job, but I think I could do better.	☐ 3 = No - I did not do this successfully, I need to do more work.
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Reasons for my rating

Did I write down what I did and saw clearly?



1 = Yes - I successfully did this.



2 = I tried to do this and did a pretty good job, but I think I could do better.



3 = No - I did not do this successfully, I need to do more work.

Reasons for my rating

Did I explain the feature that allowed each material to be separated?



1 = Yes - I successfully did this.



2 = I tried to do this and did a pretty good job, but I think I could do better.



3 = No - I did not do this successfully, I need to do more work.

Reasons for my rating

Did I clean up the materials and equipment I used?



1 = Yes - I successfully did this.



2 = I tried to do this and did a pretty good job, but I think I could do better.



3 = No - I did not do this successfully, I need to do more work.

Reasons for my rating

Did I understand what I did?



1 = Yes - I successfully did this.



2 = I tried to do this and did a pretty good job, but I think I could do better.



3 = No - I did not do this successfully, I need to do more work.

Reasons for my rating

NOW share your self-assessment with your teacher and talk about how you rated yourself.

Do they agree with your rating? Explain

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