Separating Sand and Iron Filings

Problem
Jim wants to separate the sand and iron filings. He wants to use the sand in his fish tank but does not want the iron filings to go rusty. How could he separate the sand and iron filings?

This is what Jim could do:
• _______________________________________________________________
• _______________________________________________________________
• _______________________________________________________________
• _______________________________________________________________
• _______________________________________________________________
• _______________________________________________________________

This is what Jim would need:
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Results (Were you successful? What problems did you have?)
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How could you separate the following mixtures? (Write a set of instructions)
1) Olive oil and stones
2) Glass marbles and wooden blocks
3) Wood shavings, sand, iron filings and salt

PoS - use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
NaG - pupils should build a more systematic understanding of materials by exploring and comparing the properties of a broad range of materials, including relating these to what they learnt about magnetism in Year 3 and about electricity in Year 4
WS - pupils should plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary