

# Un-mixing Mixtures

## Procedure

- 1. Collaborate** Work with a partner. Record your observations in the chart below.

Mixture	By Hand	Using a Tool
paper clips and toothpicks		
beans and rice		

- 2. Record Data** Separate a mixture of paper clips and toothpicks by hand. Have your partner time you. Record the time in your chart.
- 3. Measure** Mix the toothpicks and paper clips together again. Keep time as your partner uses a magnet to separate the mixture. Record the time in your chart.
- 4. Measure** Repeat steps 2 and 3 with a mixture of beans and rice. For step 3, use a strainer instead of the magnet.
- 5. Observe** Put two spoonfuls of water in a dish. Mix in one spoonful of salt. Leave the mixture in a sunny spot until the water evaporates. On the line below, record how long it takes for the water to dry up.  
  
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## Conclusion

Write the answers to the questions below.

1. **Analyze Data** In steps 2–5, which method of separating mixtures was fastest?

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2. **Communicate** What property was used to separate the paper clips from the toothpicks in step 3?

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3. **Infer** How do you know the properties of the salt and water did not change when they were mixed?

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## Investigate More!

**Design an Experiment** How could you speed up the separation of the salt and water? Plan an experiment and ask your teacher to help you conduct it.

