

# Mixtures Quick Assessment

1. What is a mixture?

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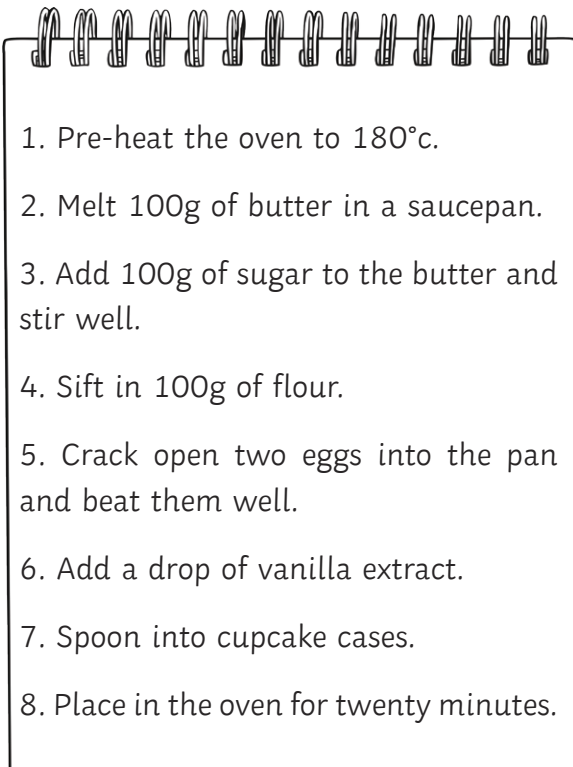
2. List three examples of mixtures:

a. \_\_\_\_\_ b. \_\_\_\_\_ c. \_\_\_\_\_

3. Complete the table to compare mixtures to compounds:

	Mixture	Compound
Are the substances chemically bonded together?		
Do the substances keep their individual properties?		
How would you separate them?		
Can you increase or decrease the amounts of each substance?		

4. Aman follows this recipe for making a cake.



1. Pre-heat the oven to 180°C.
2. Melt 100g of butter in a saucepan.
3. Add 100g of sugar to the butter and stir well.
4. Sift in 100g of flour.
5. Crack open two eggs into the pan and beat them well.
6. Add a drop of vanilla extract.
7. Spoon into cupcake cases.
8. Place in the oven for twenty minutes.



a. At which point is the cake a mixture?

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b. Explain your answer:

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c. When is it **not** a mixture?

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d. Explain your answer:

**Challenge:** Include the terms 'bonding', 'properties' and 'atoms' in your answer.

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**Learning Objectives:**

- I can define a mixture.
- I can list examples of mixtures.
- I can compare mixtures to compounds.
- I can apply my knowledge to new situations.

# Mixtures Quick Assessment Answers

1. A mixture is two or more substances that are not chemically joined/bonded together. Each substance retains its own properties. You can (usually) easily separate them using physical methods.

2. Answers could include: iron filings and sulphur, air, oil and water, concrete, seawater and mud.

	Mixture	Compound
Are the substances chemically bonded together?	no	yes
Do the substances keep their individual properties?	yes	no
How would you separate them?	physical processes	chemical reactions
Can you increase or decrease the amounts of each substance?	yes	no

4.

a. The cake is a mixture until the final step.

b. This is because the atoms have not been chemically joined together/bonded and therefore not re-arranged. The substances still have their own properties and identities.

c. The final step is when the cake is **not** a mixture.

d. This is because the heat of the oven has caused a chemical reaction and **bonded** the **atoms** together and re-arranged them. The cake now has different **properties** (taste) to the original components.

# Mixtures Quick Assessment Teacher Feedback Sheet

Effort:      1      2      3      4      5

You can define a mixture using <b>some</b> keywords.	You can define a mixture using <b>most</b> keywords.	You can define a mixture using <b>all</b> keywords.
You can name <b>one</b> example of a mixture.	You can name <b>two</b> scientific mixtures.	You can name <b>three</b> or more scientific mixtures.
You can compare <b>some</b> ways mixtures are different to compounds.	You can compare <b>most</b> ways mixtures are different to compounds.	You can compare <b>all</b> ways mixtures are different to compounds.
With <b>guidance</b> , you can <b>categorise</b> whether a substance is an element, mixture or a compound mixture based on information given.	With <b>guidance</b> , you can <b>categorise</b> and <b>justify</b> whether a substance is an element, mixture or a compound mixture based on information given.	You can <b>independently categorise</b> and <b>justify</b> whether a substance is an element, mixture or a compound mixture based on information given.

Next Steps:

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