

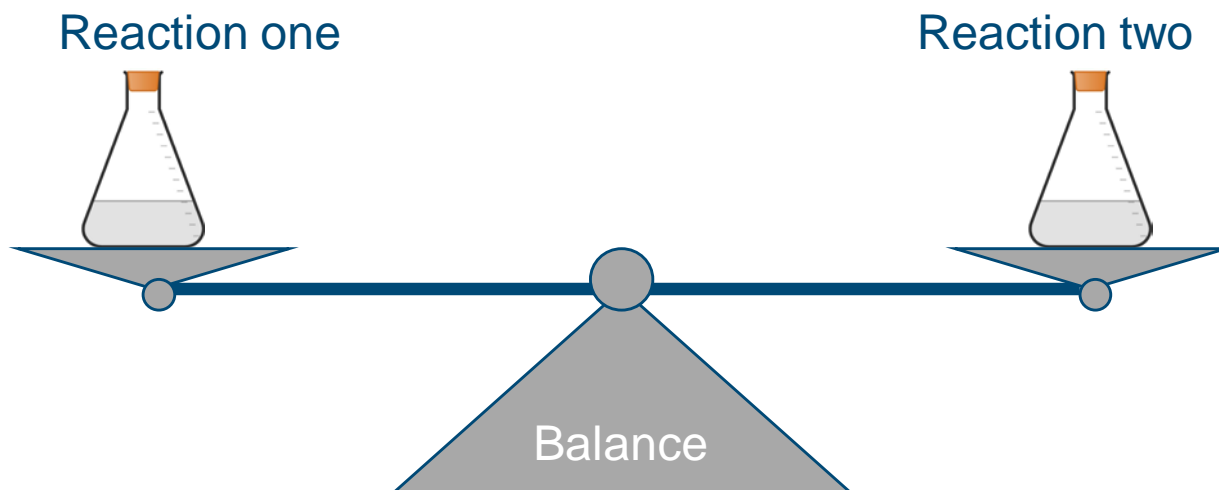
Conservation of mass

Read the full article at rsc.li/2XcHadN

Two tightly sealed conical flasks containing different chemicals are placed on a balance. The total weights of the flasks are equal.

Reaction one produces a gas. Reaction two produces a solid.

What changes will take place to the balance at the beginning and end of the reactions? Explain your answer.

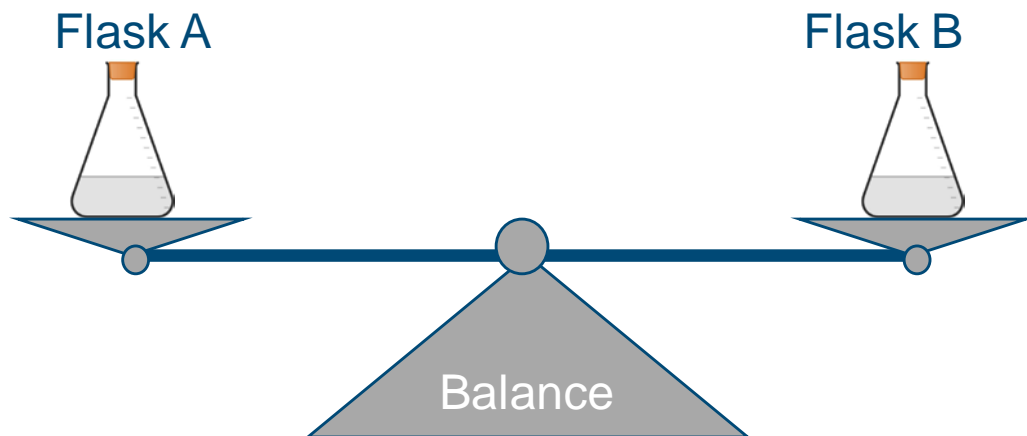


Conservation of mass

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Two tightly sealed conical flasks containing nutrient broth (food) are placed on a balance. The total weights of the flasks are equal. One bacterium is added to flask A.

What changes will take place to the balance during the 24-hour period? Explain your answer.



| | Number of bacterial cells | |
|-------|---------------------------|---------|
| Hours | Flask A | Flask B |
| 0 | 1 | 0 |
| 12 | 4096 | 0 |
| 24 | 16777216 | 0 |