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**Date:**

**Skills:** ORR & AI

**Topic:** Redox Reactions

**Aim:** To compare the reactions of oxidising and reducing agents

**Instructions:** Conduct the following tests, record observations, and write appropriate inferences.

Test	Observations	Inferences
I. Add a few drops of KI to $\text{KMnO}_4$	Colour changed from purple to orange/yellowish brown solution, with some small dark-coloured precipitate in there	Oxidant: $\text{KMnO}_4$  Reductant: KI
II. Add a few drops of $\text{FeSO}_4$ to $\text{KMnO}_4$	Changed colour from purple to colourless	Oxidant: $\text{KMnO}_4$  Reductant: $\text{FeSO}_4$
III. Add a few drops of $\text{H}_2\text{O}_2$ to $\text{KMnO}_4$	Effervescence, changed from purple to colourless with a brown precipitate on the surface. There was heat produced	Oxidant: $\text{KMnO}_4$  Reductant: $\text{H}_2\text{O}_2$
IV. Add a few drops of $\text{H}_2\text{O}_2$ to KI	Colour changed from colourless to yellow. There is effervescence with very small bubbles	Oxidant: KI  Reductant: $\text{H}_2\text{O}_2$
V. Add a few drops of $\text{FeSO}_4$ to KI	A little thingy at the top, no visible change	Oxidant: N/A  Reductant: N/A
VI. Add a few drops of $\text{H}_2\text{O}_2$ to $\text{FeSO}_4$	Effervescence, changed from colourless to pale yellow-green	Oxidant: $\text{H}_2\text{O}_2$  Reductant: $\text{FeSO}_4$

Conclusion: What is the order of the reagents in **increasing** oxidising power?

$\text{KI} \rightarrow \text{FeSO}_4 \rightarrow \text{KMnO}_4 \rightarrow \text{H}_2\text{O}_2$