Entropy!
Compare and Contrast
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What is entropy?

Entropy is a measure of the _______ or _______

_________________________ or __________________

of a system.

Other synonyms?
Which has more entropy?

OR
Which has more entropy?

OR
Which teacher’s desk has the most entropy???
Which has more entropy?

What state of matter are each of these?

- gas
- solid
Describe the change in entropy occurring
Which has more entropy, reactants or products?

\[ 2\text{H}_2\text{O}_2(\text{l}) \rightarrow 2\text{H}_2\text{O}(\text{l}) + \text{O}_2(\text{g}) \]

\[ \text{NaCl}(\text{s}) \rightarrow \text{Na}^+(\text{aq}) + \text{Cl}^-(\text{aq}) \]
Which has the greatest increase in entropy?

a) \(2\text{H}_2\text{O} \text{(l)} \rightarrow 2\text{H}_2\text{(g)} + \text{O}_2\text{(g)}\)

b) \(2\text{H}_2\text{O} \text{(g)} \rightarrow 2\text{H}_2\text{(g)} + \text{O}_2\text{(g)}\)

c) \(\text{H}_2\text{O} \text{(g)} \leftrightarrow \text{H}_2\text{O} \text{(l)}\)

d) \(\text{H}_2\text{O} \text{(l)} \leftrightarrow \text{H}_2\text{O} \text{(s)}\)
Time to practice!