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| ΔGrxn |
| Determines if a reaction is thermodynamically favorable |
| Gibbs (Free) Energy |
| Tells whether a reaction shifts right or left from starting conditions |
| H - TΔS |
| **-** = spontaneous/ thermodynamically favorable |
| **+** = nonspontaneous/ not thermodynamically favorable |
| Units are in kJ/mol |

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| ΔSrxn |
| Entropy |
| Reflects the number of microstates (or degree of “disorder") |
| **+** is good for spontaneity (driving force) |
| **+** = increasing disorder (more microstates) |
| **-** = increasing order (fewer microstates) |
| Units are J/mol K |

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| ΔHrxn |
| A measure of heat energy released or required |
| Enthalpy |
| **-** is good for spontaneity (driving force) |
| **-** = exothermic |
| Related to the change in entropy of the surroundings |
| **+** = endothermic |
| Units are kJ/mol |