Reaction Spontaneity

Activity 1 :

Use each of the terms below to complete the statements.

second law of thermodynamics	entropy	free energy	spontaneous process

1. A(n) _____ is a physical or chemical change that occurs with no outside intervention.
2. A measure of disorder or randomness of the particles that make up a system is called _____.
3. The _____ states that spontaneous processes always proceed in such a way that the entropy of the universe increases.
4. _____ is the energy that is available to do work.

Activity 2 :

Predict *whether entropy increases or decreases for the reaction below and explain your reasoning.*

$N_2(g) + 3H_2(g) \rightarrow 2NH_3(g)$

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