**LASER PhET Activity:**

**Specific goals for learning outcomes**

Students will be able to explain:

1. Light is absorbed and emitted by atoms in discreet wavelengths.
2. Stimulated emission occurs when a photon strikes an atom and emits an additional photon in the same direction and wavelength as the original photon.
3. An increased lifetime prior to spontaneous emission will increase the likelihood that a stimulated emission event will occur.
4. Additional energy levels allow for an atom to be in higher energy states than the energy level transition that allows for lasing. This allows for an additional method of stimulating the atoms to release photons with the desired wavelength.
5. A mirrored cavity localizes the photons and allows for increased chances for stimulated emission while atoms within the cavity are at the required energy level.