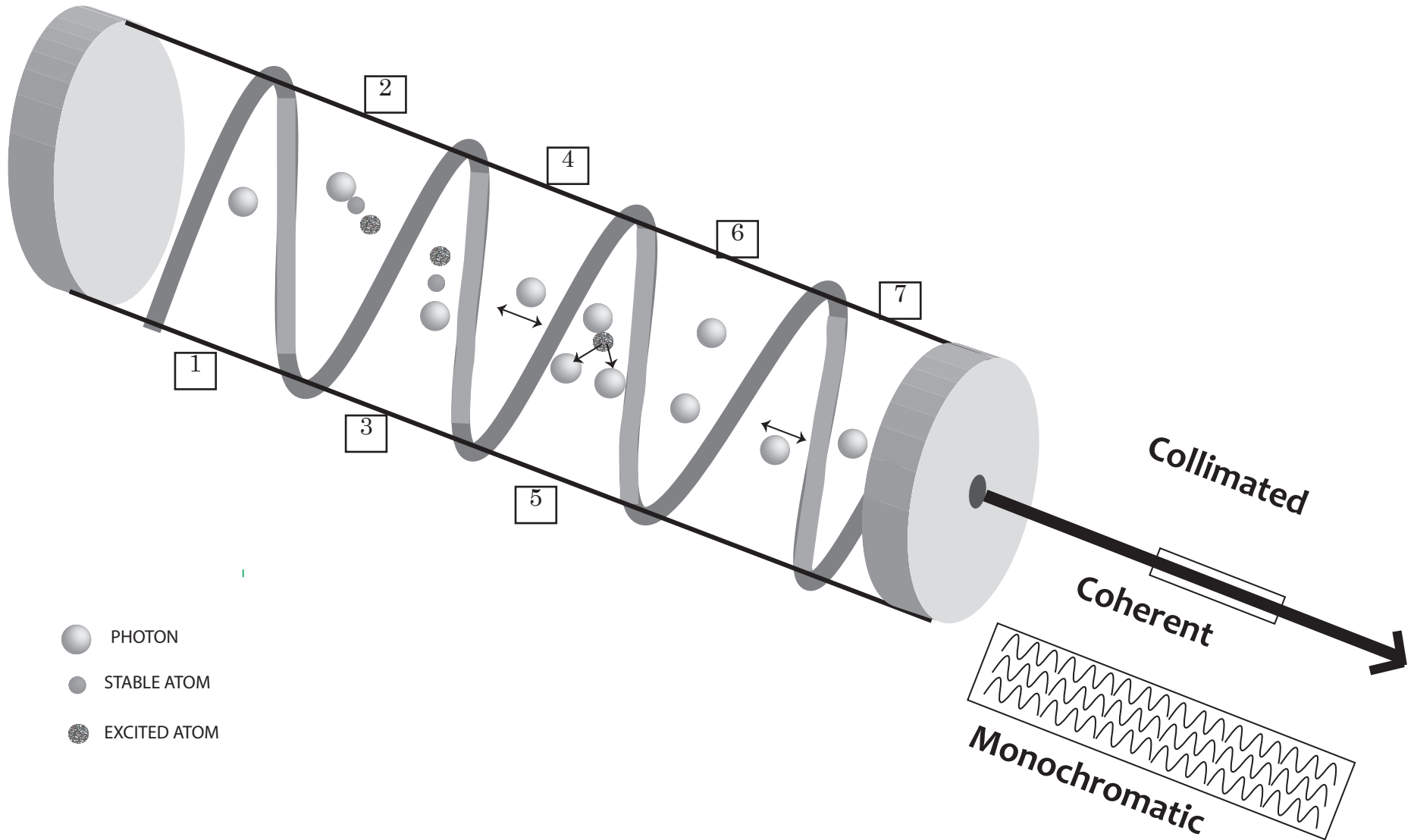


Describe how a laser beam is formed.

By



LIGHT FLASH Photons are flashed into the ruby crystal by the flash tube wrapped around the outside of the crystal T-7	ABSORPTION Atoms in the ruby crystal absorb the photons which makes the atom excited for a few milliseconds T-7	SPONTANEOUS EMISSION The excited atom falls back to its original state and emits a photon T-7	SPEED OF LIGHT The emitted photon travels through the ruby crystal at the speed of light Mirrors at each end keep the photons traveling back and forth T-7	STIMULATED EMISSION- The super fast photon hits another highly charged atom and now it emits two photons T-7	LIGHT AMPLIFICATION Light is amplified because now two photons are emitted T-7	LASER BEAM A beam of concentrated light is emitted from opening at one end of crystal T-7
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Light Amplification T-7
Stimulated Emission of Radiation T-7

Focused in one direction T-7
Waves are parallel T-7
Waves are the same size and color T-7

To Make Your **MatchCard** more durable:

1. Put the student MatchCard in a clear plastic page protector.
2. Laminate the information pieces. You can also make them sturdier by covering the paper with transparent tape prior to cutting the pieces out.
3. For more ideas on how to use the MatchCards, and for keeping a notebook for review, see the Instructor's Guide.
4. The complete Technology Unit Study provides the student worksheets, answer key, and teaching activities for this and 8 other objectives. See the website for more information.