

**Topic 3 - The Spectroscope: New Meanings In Light**

1. A device that enables you to pass light through a narrow slit before sending it through a prism is called a ...
  - A. **spectroscope**
  - B. **spectrograph**
  - C. **spectrogram**
  - D. **spectrometer**
2. The study of spectral lines is a part of chemistry that led to the development of the science of ..
  - A. **spectrography**
  - B. **spectralism**
  - C. **spectroscopy**
  - D. **spectology**
3. With thousands of closely spaced slits much better detail in the spectrum can be produced using this device ...
  - A. **deflector dish**
  - B. **reflective grid**
  - C. **refracting prism**
  - D. **diffraction grating**
4. Spectral analysis is used to identify the spectra of a star, compared to known spectra of elements, in order to determine the star's ...
  - A. **age**
  - B. **distance**
  - C. **composition**
  - D. **atmosphere**
5. The spectrum of an *approaching star* shows the dark bands shift to the
  - A. **blue end of the spectrum**
  - B. **center of the spectrum**
  - C. **violet part of the spectrum**
  - D. **red part of the spectrum**
6. To determine the speed of the vehicle, a radar gun records the difference in the outgoing wavelength and incoming wavelength, using the ...
  - A. **polar effect**
  - B. **doppler effect**
  - C. **parallax principle**
  - D. **doppler Technique**
7. Kirschhoff and Bunsen discovered there were three types of spectra given off by individual elements. They include all of the following, EXCEPT ...
  - A. **emission**
  - B. **continuous**
  - C. **absorption**
  - D. **defraction**
8. The spectrum that produces dark lines when white light passes through a cooler substance is called...
  - A. **emission**
  - B. **continuous**
  - C. **absorption**
  - D. **defraction**
9. The spectroscope's application to astronomy has helped astronomers determine the ...
  - A. **orbital rotation**
  - B. **distance of stars**
  - C. **composition of stars**
  - D. **life cycle of a star**