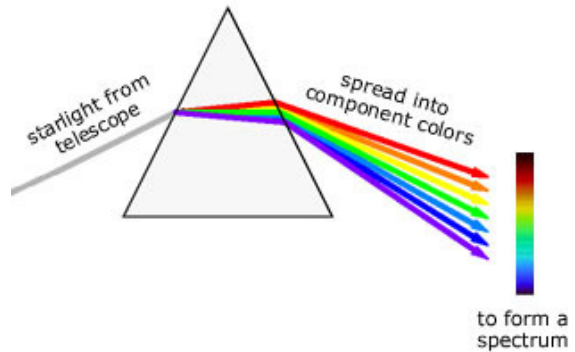


## What Does the Spectrum of a Star Tell Us about Its Temperature?

### DIRECTIONS:

- Go to [danling.com](http://danling.com) and click on Earthling | History of the Universe
- Under UNIT 2, find the link for "Investigation: What Does the Spectrum of a Star Tell Us about Its Temperature?"
- Work through the activity, and answer the questions in the places provided below.



Examples of stellar spectra



1. How do you think the light from a star might indicate the star's temperature?

2. a. Record a list of the spectra in each of your groups.

A.

B.

C.

D.

2.b. Describe the criteria you used to categorize the spectra.

3.a. Record a list of the spectra you assigned to each group.

A.

B.

C.

D.

3.b. How does this classification scheme compare with your first one?

4. Record the peak emission wavelength for each of the four standard stars.

A.	B.	C.	D.
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5. Record the temperature indicated by peak emission wavelength for each of the four standard stars.

A.	B.	C.	D.
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6. Record the peak emission wavelength for each star's spectrum.

2.	1.	5.	4.
6.	3.	9.	10.
7.	8.	12.	11.

7. Based on the peak emission wavelengths and the temperatures of the standard stars, estimate the temperatures of stars in each category. (Refer back to step 6 if necessary.)

2.	1.	5.	4.
6.	3.	9.	10.
7.	8.	12.	11.

8. Based on their spectral patterns, estimate the temperatures of the four unknown stars.

A.	B.	C.	D.
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