H-R Diagram

--the Hertzsprung-Russell (H-R) diagram graphs LUMINOSITY (total energy output in all frequencies per unit time) as a function of TEMPERATURE (or spectral class)

--a star's position on the H-R diagram is dependent upon its mass and its age

--that is, a star like our sun will stay fixed on the Main Sequence part of the diagram for, maybe, 10 billion years, then as it runs out of fuel will migrate up into the red giant area

--put a little differently, there are stars in the red giant stage that do not look like our star at all, but that were at one time just like the sun

Hertzsprung-Russell diagram

--KNOW THE DIAGRAM LIKE YOU KNOW YOUR SHOE SIZE!

