

## SAMPLE

## GRADE 8 BENCHMARK

SUBJECT: Science

Variable stars can be used to judge distance since the luminosities change. One type of variable star is the pulsating variable. Energy from below the surface of such a star heats the gasses of the visible, shiny surface. As the surface becomes hotter and brighter, it expands. Once the surface expands, however, the gases cool and the star again becomes dimmer. The cooler gases then contract, causing them to once again get hotter, and a new cycle begins.

Science Plus Text, Vol. 2. Harcourt, Brace Jovanovich, Inc.

<b>Note Card 1</b>	<b>Paraphrasing</b>
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Variable stars help scientists find how far away an object is by studying the star's brightness. A pulsating variable expands as the gases heat up and it becomes brighter. Soon the gases cool and the star loses its brightness. The cycle of heating starts again and the brightness returns.

<b>Note Card 2</b>	<b>Summarizing</b>
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Variable stars can be used to judge distance and a type of variable star is the pulsating star. Stars become brighter and then dimmer.

<b>Note Card 3</b>	<b>Quote</b>
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"Variable stars can be used to judge distance since the luminosities change."