

**Curriculum Unit Title:** What causes the Northern Lights?

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**KEY LEARNING, ENDURING UNDERSTANDING, ETC.**

NGSS Standard HS-PS1-1

**ESSENTIAL QUESTION(S) for the UNIT**

How do stars produce elements throughout their life cycle?

**CONCEPT A**

Light

**CONCEPT B**

Electron movement within atoms

**CONCEPT C**

Light Emission

**ESSENTIAL QUESTIONS A**

What is light?

**ESSENTIAL QUESTIONS B**

What causes electrons to move within the energy levels of their atoms?

**ESSENTIAL QUESTIONS C**

How does the movement of electrons emit light from an atom?

**VOCABULARY A**

Photon  
Infrared Radiation  
Electromagnetic Radiation  
Visible Light  
Ultraviolet Light

**VOCABULARY B**

Excited State  
Ground State  
Quanta  
Energy Level

**VOCABULARY C**

**ADDITIONAL INFORMATION/MATERIAL/TEXT/FILM/RESOURCES**

Optional websites/resources include: [www.schoolology.com](http://www.schoolology.com), [www.peardeck.com](http://www.peardeck.com), and Google Docs