We have created a guide to get you started. This is designed to be a starting point that can be tweaked to your individual style/needs. Included in the general plan are standards/access points, vocabulary, key questions and links to a variety of resources including tutorials, informational text, videos, experiments and sample activities. All of the links in this file are live and clicking on the standard will take you directly to C-Palms.

PowerPoints for Properties of the Sun:

Visual Vocabulary [Click here](http://accesstoflsresources.weebly.com/uploads/2/3/7/3/23739164/9._properties_of_the_sun_visual_vocab.pptx)

Key Questions [Click here](http://accesstoflsresources.weebly.com/uploads/2/3/7/3/23739164/9.__properties_of_the_sun.essential_questions.pptx)

*Drafted by Sarasota County Teachers Dawn Byrne, Jeremy Johnson and Elizabeth Lewis, piloted 2016-17 in 5 classes and general education content review by Betsy Summerlee.*

|  | **Properties of the Sun** |
| --- | --- |
| **Unit/Topic Standard** | [SC.912.E.5.4:](http://www.cpalms.org/Public/PreviewStandard/Preview/1883) Explain the physical properties of the Sun and its dynamic nature and connect them to conditions and events on Earth. |
| **Access Points** | [SC.912.E.5.In.3:](http://www.cpalms.org/Public/PreviewAccessPoint/Preview/8207) Describe the Sun as a medium-sized star with sunspots and storms that can affect weather and radio transmissions on Earth.  [SC.912.E.5.Su.3:](http://www.cpalms.org/Public/PreviewAccessPoint/Preview/8208) Describe observable effects of the Sun on Earth, such as changes in light and temperature.  [SC.912.E.5.Pa.3:](http://www.cpalms.org/Public/PreviewAccessPoint/Preview/8209) Observe and recognize effects of the Sun on Earth, such as temperature changes. |
| **Vocabulary** | Sun, sunspots, solar flares, prominences, layers of the sun, core, radiative zone, convection zone, photosphere, chromosphere, corona, coronal mass ejections, nuclear reactions |
| **Key Concepts** | * What is the Anatomy of the Sun? * What is Plasma? * What are Photons? * How Does the Sun’s Magnetic Field Affect Activity On Its Surface? * What are Sunspots? How are They Formed? * What is a Solar Prominence? * What is the Solar Cycle? * What are Solar Flares? * What are Coronal Mass Ejections (CMEs)? * What are Solar Winds? |
| **Resources** | * Sonification and Eccentricity of the Sun, video 5 minutes: [Click Here](http://www.cpalms.org/Public/PreviewResourcePerspectivesVideo/Preview/119736) * How a Solar Phenomenon Affects the Earth, create cause and effect t-shirts to relate phenomena on the sun to disruptive events they cause on Earth: [Click Here](http://www.cpalms.org/Public/PreviewResourceLesson/Preview/132855) * Mysterious Corona - Why's it so Hot? Article on the corona: [Click Here](http://www.cpalms.org/Public/PreviewResourceLesson/Preview/152365) * 6 Text Resources are available: [Click Here](http://www.cpalms.org/Public/PreviewStandard/Preview/1883)   + It's Hot...Super Hot: Finding Answers Around the Sun   + Monster Sunspot Larger Than Jupiter Stars in Amazing Sun Photos:   + Space Weather: Sunspots, Solar Flares & Coronal Mass Ejections   + Starless Cloud Cores Reveal Why Some Stars are Bigger than Others * Anatomy of the Sun, interactive web site: [Click Here](http://www.pbs.org/wgbh/nova/labs/lab/sun/1/1/) * What is Plasma, 2 minute video: [https://Click Here](https://www.youtube.com/watch?v=2osF6l6-zWg) * Photon, 1 minute video: [https://Click Here](https://www.youtube.com/watch?v=qbM39XZMrNI) * Understanding the magnetic sun, 2 minute video: [https://Click Here](https://www.youtube.com/watch?v=2g1epPppIOM) * What is a Solar Prominence? Video 1 minute: [Click Here](https://www.youtube.com/watch?v=NXzFgqQw6T8) * NASA Solar Cycle video just over 3 minutes: [Click Here](https://www.youtube.com/watch?v=sASbVkK-p0w) * Extreme solar flares, video 3 minutes: [Click Here](https://www.youtube.com/watch?v=nmDZhQAIeXM) * What are sunspots, 2 minutes video: [Click Here](https://www.youtube.com/watch?v=ZC2dfDS8g0Q) * Nova Labs, video 3 minutes: [Click Here](http://www.pbs.org/wgbh/nova/labs/lab/sun/2/1/) * Solar Winds Intro video 3 minutes: [Click Here](https://www.youtube.com/watch?v=_kZ6HSPkf8U) |