

Each image in this answer key includes markings which point out (using arrows or circles) noteworthy features on the image.

- Each noted feature includes a letter code ("A", "B", etc.)
- The key to the letter codes is to the left of the image.
- Each key has two parts:
  - **1.** What the student should notice during the "Explore" part of this activity
  - 2. The name of the feature, which the students should identify during the "Explain" portion of this activity.

#### Key for Visible (Red) Light View of the Sun - March 29, 2001

#### **Explore phase**

- A Students should note the presence of dark spots at various locations. Keen observers might also note that spots have a darker central area and a lighter outer part; this is more noticeable on larger spots
- B Keen observers may notice lighter-colored areas in a few places; sometimes near spots, sometimes not.

### **Explain phase**

- A Sunspots
- B Facula (plural is faculae)

# Visible (Red) Light View of the Sun – March 29, 2001







#### **Explore phase**

- A Brighter areas
- B Students should notice various odd-shaped protrusions extending outward from the edge of the Sun's disk.
- C Students might notice a "fuzzy glow" or diffuse bright areas beyond the edge of the Sun's disk at various places around the circumference.

### Explain phase

A – Active Regions

- B Prominence
- C The Sun's Atmosphere (or corona upper atmosphere)

## Ultraviolet View of the Sun – September 19, 2010





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#### **Explore phase**

- A Loop extending well beyond the disk of the Sun
- B Brighter areas
- C Students might notice a "fuzzy glow" or diffuse bright areas beyond the edge of the Sun's disk at various places around the circumference.

### Explain phase

- A Solar Prominence
- B Active Regions
- C The Sun's Atmosphere (or corona upper atmosphere)

## Ultraviolet View of the Sun – September 14, 1999







#### **Explore phase**

- A Very, very bright area
- B Brighter areas
- C Students might notice a "fuzzy glow" or diffuse bright areas beyond the edge of the Sun's disk at various places around the circumference.
- D Darker areas
- E Small loops

### **Explain phase**

- A Solar Prominence
- **B** Active Regions
- C The Sun's Atmosphere (or corona upper atmosphere)
- D Coronal Holes
- E Coronal Loops

## Ultraviolet View of the Sun - November 4, 2003







A – Students should notice a "fuzzy glow" or diffuse bright areas beyond the edge of the Sun's disk at various places around the circumference.

### **Explain phase**

A – The Sun's Corona (upper atmosphere)



## Solar Eclipse – February 16, 1980







### **Explore phase**

A – Students should notice a "fuzzy glow" or diffuse bright areas beyond the edge of the Sun's disk, mostly in two "wings" on the left and right side.

### **Explain phase**

A – The Sun's Corona (upper atmosphere)

### Solar Eclipse – November 3, 1994





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#### **Explore phase**

- A Red areas at various places around the edge of the Sun's disk
- B Fuzzy white glow at various places around the edge of the Sun's disk
- C Shapes in the red areas

### **Explain phase**

- A Chromosphere (Sun's lower atmosphere)
- B Corona (upper atmosphere)
- C Solar Prominences

## Solar Eclipse – August 11, 1999





### **Explore phase**

- A Lighter colored areas
- B Short, dark lines and "squiggles"
- C Small, dark dots

### Explain phase

- A Active regions
- B Solar filaments
- C Sunspots

# Visible (Red H-alpha) Light View of the Sun – July 18, 2000









#### **Explore phase**

- A Bright loops or curves
- B Brighter areas
- C Students might notice a "fuzzy glow" or diffuse bright areas beyond the edge of the Sun's disk at various places around the circumference.

### Explain phase

- A Coronal loops
- B Active regions
- C The Sun's Atmosphere (or corona upper atmosphere)

## Ultraviolet View of the Sun – April 20, 2012



