

# Timmy Telescope Solar Astronomy Education



**Bringing Informal  
Science to the  
Public at No Cost**

- ***Museums***
- ***Schools***
- ***Parks***
- ***Libraries***
- ***STEM events***
- ***Special Events***



Bell Museum, Saint Paul, MN

## 2019 Summary

[www.TimmyTelescope.com](http://www.TimmyTelescope.com)

# WHERE WAS TIMMY IN 2019?

## 82

events in NM

- Albuquerque, NM
- Belen, NM
- Estancia, NM
- Gallup, NM
- Glenrio, NM
- Los Alamos, NM
- Los Lunas, NM
- Rio Rancho
- Santa Fe, NM

**559 volunteer event hours\***

\*does not include travel time or set-up

## 10

events outside NM

- Colorado
- Minnesota
- Montana
- South Dakota
- Wyoming

**8,619 volunteer miles**

**7** Library Events

**3** Community Events

**62** Museum Events

**11** School Events

**9** Park Events



**92 events ~ 9,443 visitors**

Timmy Telescope Solar Astronomy Education ~ 2019

# WHAT'S NEW THIS YEAR?



NEW  
Q & A cards

**What Animals See**



**What does a Dog see?**

Timmy Telescope Solar Astronomy Outreach  
www.TimmyTelescope.com

**What Animals See**



- Dogs see the world in brown, blue and yellow tones and cannot distinguish between red, yellow, green and orange objects.
- Have a wider peripheral vision than humans.
- Able to see in much dimmer light and can detect motion more easily than we do.

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Spectrum  
Bow Tie



A WALK THROUGH  
THE SOLAR SYSTEM

Students walked a scale  
model of the solar system  
and learned "What's New."

# IT'S ALL ABOUT LIGHT--and SPECTROSCOPY!

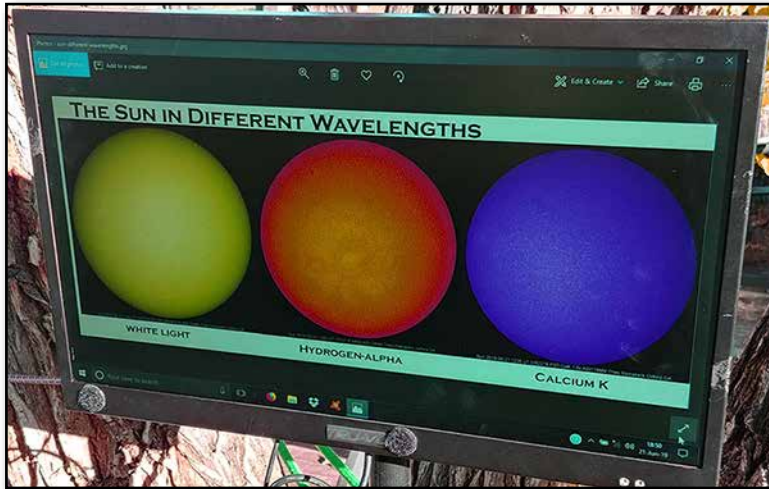
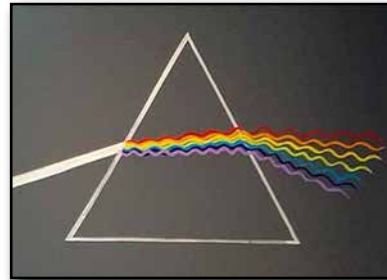


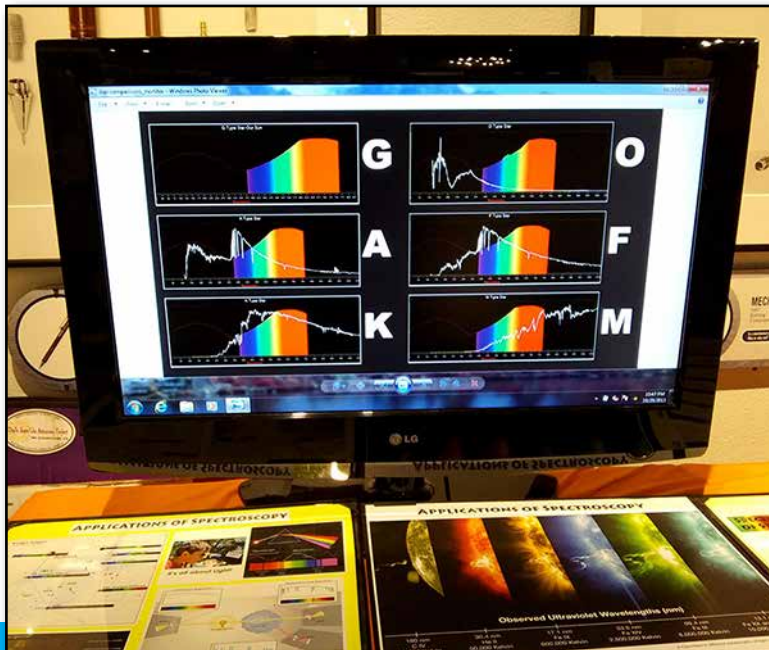
Photo: Theo Ramakers, ALPO:Solar Division



Identifying an unknown element by matching it to a known absorption spectra.

Using a Spectroscope to find a specific Fraunhofer absorption line grouping.

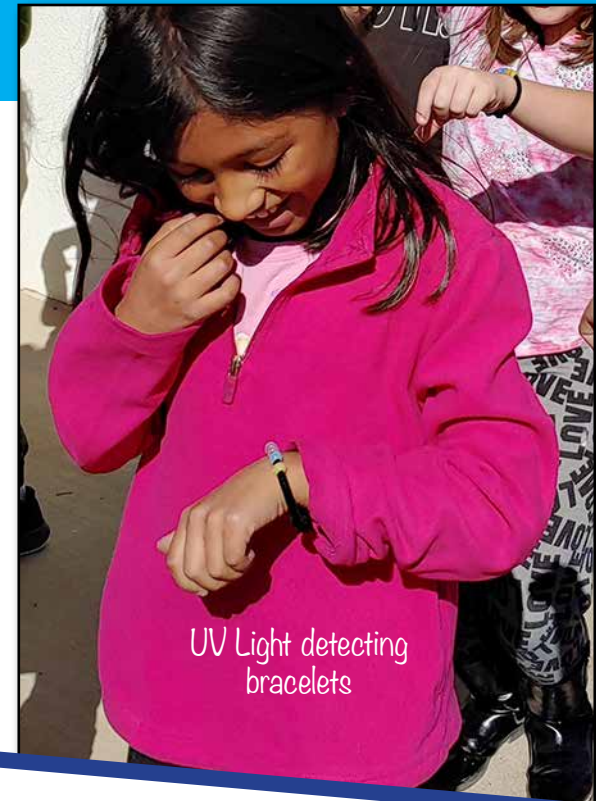
“Doing real science” ~  
Taking the Spectrum Challenge:



# Different Wavelengths



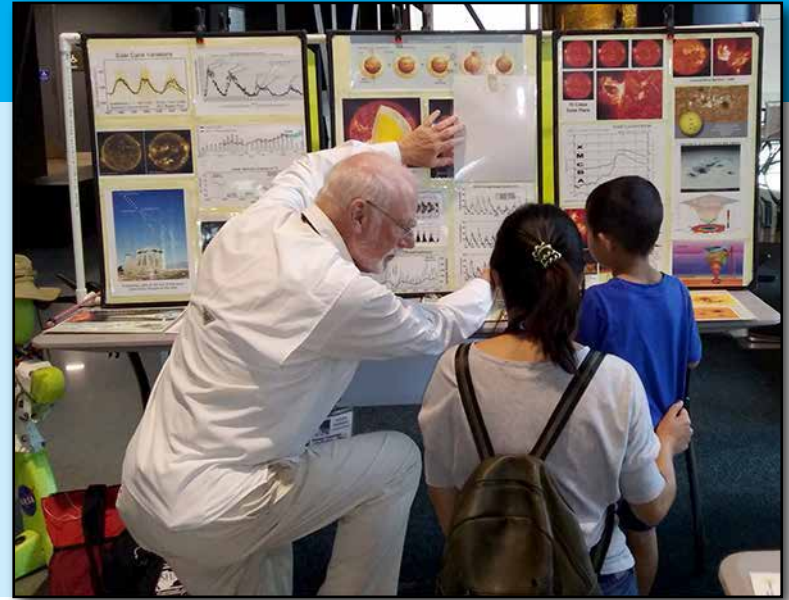
Timmy explores SDO's "Jewel Box Sun" at the Bell Museum, Saint Paul, MN



“ Thank you for showing us the telescope and giving us the glasses. Thank you for showing us how light waves work. I liked playing the matching games at the tables. Thank you for showing us the different heats of stars. I had a really good time. ”

# MUSEUM VISITS

- Bell Museum, Saint Paul, NM
- National Museum of Nuclear Science & History, Albuquerque, NM
- New Mexico Museum of Natural History & Science, Albuquerque, NM
- Santa Fe Children's Museum, NM



# COMMUNITY EVENTS

- Los Alamos Science Festival, NM
- Rocky Mountain Star Stare, CO



# SCHOOL VISITS

- ABQ School of Excellence, NM
- Canon Christian Academy, NM
- Los Lunas Gifted Program, NM
- Rt 66 Elementary School, NM
- Nuclear Museum Homeschool, NM
- Sandoval Academy of Bilingual Education, NM
- School of Dreams Academy, NM
- Sunset Mesa School, NM
- Ventana Ranch Elementary School, NM



“ Thank you Mr. Kennedy for teaching us all about Astronomy. My favorite part was how we got to see through the telescopes that you brought. It was the best school day ever. My second favorite part was how we made the super cool bracelets. Thank you so, so much. ”

# PARK VISITS

- Badlands National Park, SD
- Elena Gallegos Open Space, Albuquerque, NM
- Glenrio Visitors Center, Glenrio, NM
- Swords Rimrock Park, Billings, MT
- Sioux Falls Park, Sious Falls, SD
- Whitfield Wildlife Conservation Area, Belen NM
- Yellowstone National Park, WY



All ages enjoy learning about our closest star.





# LIBRARY VISITS

- Estancia Public Library, Estancia, NM
- Los Lunas Public Library, Los Lunas, NM
- Octavia Fellin Public Library, Gallup, NM

Santa Fe Library, NM

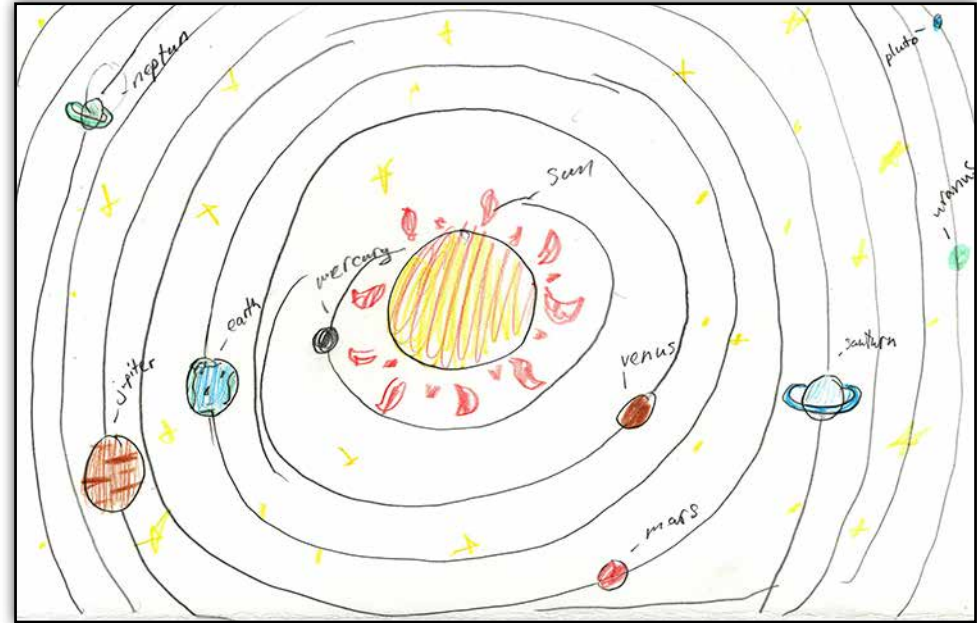
- LaFarge Branch
- Main Library
- Southside Library



# This is why we do outreach



Solstice Timmy studies the sundial at the Santa Fe Children's Museum, NM



One student was so excited after his Walk through the Solar System, he sat down and drew his own model.

more photos on *Where was Timmy?*:  
[www.timmytelescope.com/Timmy.html](http://www.timmytelescope.com/Timmy.html)

Dear Mr. Kennedy,

★ Thank you so much for coming and sharing your knowledge of science with us. I really enjoyed looking through the telescopes. My favorite things you taught us were the different colors of stars are different heats. The other thing I enjoyed learning was that when you see light from a star, you are seeing its light from the past. ★

I was a great experience having you here. ★

Sincerely Nico. ★



Timmy meets the Woolly Mammoth at the Bell Museum, Saint Paul, MN

# Timmy Telescope Solar Astronomy Education ~ 2009 - 2019

**1182 events ~ 181,462 visitors**

## 15 states

- *Arkansas*
- *Arizona*
- *Colorado*
- *Idaho*
- *Minnesota*
- *Montana*
- *New Jersey*
- *New Mexico*
- *New York*
- *Oregon*
- *Pennsylvania*
- *South Dakota*
- *Texas*
- *Washington*
- *Wyoming*



**8,264 volunteer event hours\***

*\*does not include travel time or set-up*



**95,069 volunteer miles**