SOS Education Forum

June 2022

Agenda

Introduce ourselves

June Spotlight on Hurricane Season

SOS Workshop - What is it? Should I come?

Kinesthetic & Hands-on Activities for SOS

SOS Workshop

Invitation – did you receive it?

Find more information
https://www.noaa.gov/office-education/sosnetwork/workshops/2022-workshop

Travel Support & Registration - Hotel, breakfasts (3), lunches (3), dinner for one night & registration is COVERED for U.S. museum attendees.

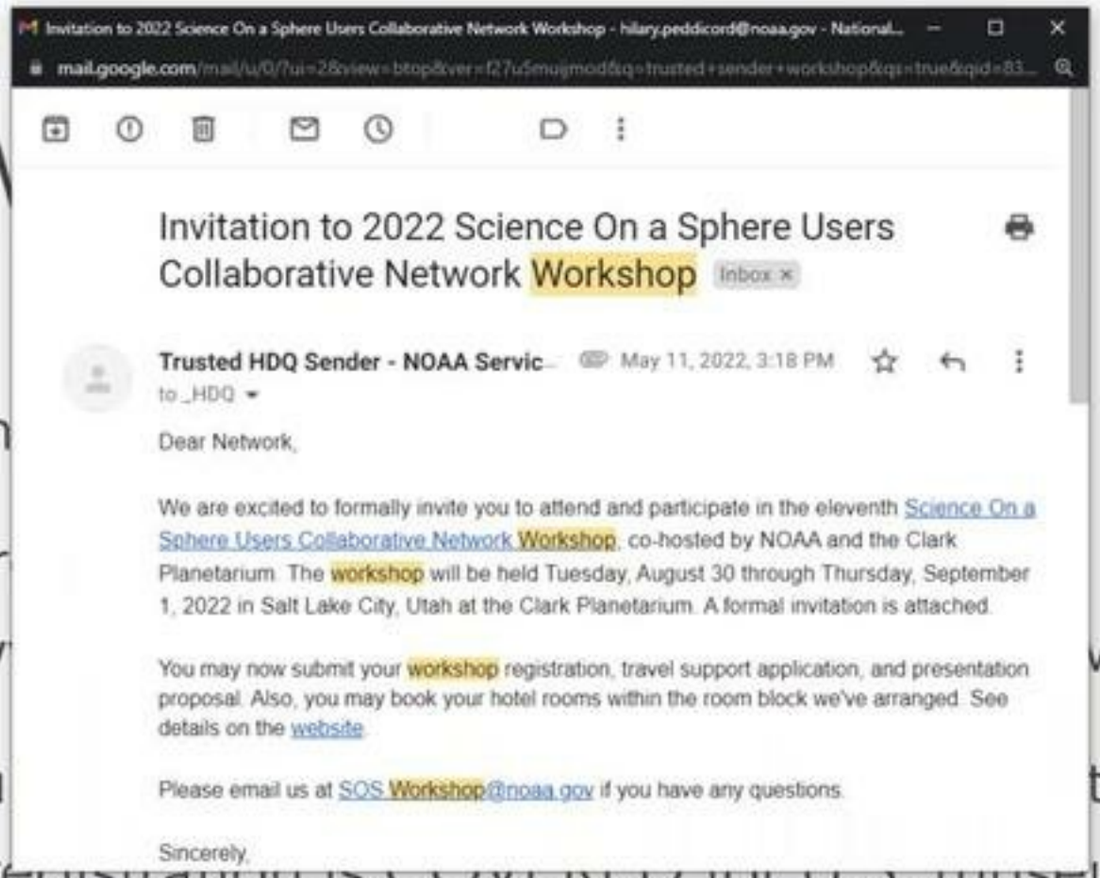
SOS W

Invitation

Find mor

https://w work/workshops/2022-workshop

Travel Su ts (3), lunches (3), dinner for one night & registration is COVERED for U.S. museum attendees.



Invitation to 2022 Science On a Sphere Users Collaborative Network Workshop - hilary.peddicord@noaa.gov - National Oceanic and Atmospheric Administration Mail - Google Chrome

mail.google.com/mail/u/0/?ui=2&view=btop&ver=f27u5mujjmod&q=trusted+sender+workshop&qs=true&qid=833DEE50-6840-4E19-A4DA-47E2D89FABC9&agid=70F61EC0-5408-44E2-A967-C55C2F31E093&search=query&th=%23thread-f:1732566210668015432%7Cmsg-f:1732566210668015...

Invitation to 2022 Science On a Sphere Users Collaborative Network Workshop

Inbox ×

Trusted HDQ Sender - NOAA Service Account <trusted.hdq.sender@noaa.gov> (sent by beth.russell@noaa.gov)

to _HDQ

May 11, 2022, 3:18 PM

Trusted HDQ Sende...
trusted.hdq.sender@noaa.gov
null
Open detailed view

Dear Network,

We are excited to fo ience On a Sphere Users Collaborative Network Workshop, co-hosted by NOAA and the Clark Planetarium. The workshop will b 2022 in Salt Lake City, Utah at the Clark Planetarium. A formal invitation is attached.

You may now submit resentation proposal. Also, you may book your hotel rooms within the room block we've arranged. See details on the website.

Please email us at S if you have any questions.

Sincerely,

Beth and the SOS Workshop Team

PS - If you are getting duplicate emails, sorry about that! We want to make sure we don't miss anyone.

SOS Workshop 202...

Reply | Reply all | Forward

1:22 PM
6/15/2022

National Oceanic and Atm | Adding me to SOS email l | Ed Forum- June 2022 - Go | NOAA View Global Data I | 2022 Science On a Sphere | Earthquakes of the 20th C | Title: | Lesson Plan | Kinesthetic A

nnvl.noaa.gov/view/globaldata.html#TCHP

Error

Add Data

Back

Tropical Cyclone Heat Potential

- Weekly
- Monthly
- Yearly

kJ/cm²

0 112.5 225

Tropical Cyclone Heat Potential: 6/6/22 - 6/12/22

-44.56055° Lon, 34.00391° Lat

Data Values

Hurricane Track Bal....jpg | La Nina 11x17.jpg | Show all

1:23 PM
6/15/2022

Science On a Sphere Users Collaborative Network

2022 Science On a Sphere® Users Collaborative Network Workshop

Clark Planetarium, Salt Lake City, UT, August 30-September 1, 2022

Projecting Leadership in Science Engagement

Overview

Press Esc to exit full screen

SOS Workshop

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Hurricane Season has officially begun

Sea Surface Temperature - Where do hurricanes happen and why?

Hurricane Season has officially begun

Sea Surface Temperature - Where do hurricanes happen and why?

Tropical Cyclone Heat Potential - It takes more than warm *sea surface* but also heat below the surface. https://www.nnvl.noaa.gov/view/globaldata.html#TCHP

Sea Surface Temperature Anomaly - La Niña creates an atmosphere where Atlantic Hurricanes have fewer challenges during formation (wind shear is low). Higher than average number of Atlantic hurricanes are expected.

Activities Chromium Web Browser Wed 1:30 PM

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SOS

1

Start SOS

SOS Utilities

SOS Visual Playlist Editor

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Code42 CrashPlan

SOS_new_medforce2.jpg

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SOS Stream GUI - /home/sos/sosrc/ssp_climate_models.sos

SOS File Library Controls Utilities

CURRENT DATASET

Name: Sea Surface Temperature - Real-time Details

PLAYBACK

364

Clear

1. Ocean Acidification: Saturation State - SSP1 (Sustainability) - 2015 - 2100
MajorCategory: Water, Animate: yes, Audio: no

2. Ocean Acidification: Saturation State - SSP2 (Middle of the Road) - 2015 - 2100
MajorCategory: Water, Animate: yes, Audio: no

3. Ocean Acidification: Saturation State - SSP5 (Fossil-fueled Development) - 2015 - 210
MajorCategory: Water, Animate: yes, Audio: no

4. Climate Model: Surface Temperature Change: SSP1 (Sustainability) - 2015 - 2100
MajorCategory: Air, Animate: yes, Audio: no

5. Climate Model: Surface Temperature Change: SSP2 (Middle of the Road) - 2015 - 2100
MajorCategory: Air, Animate: yes, Audio: no

6. Climate Model: Surface Temperature Change: SSP5 (Fossil-fueled Development) - 201
MajorCategory: Air, Animate: yes, Audio: no

7. Climate Model: Sea Ice Concentration: SSP1 (Sustainability) - 2015 - 2100
MajorCategory: Snow and Ice, Animate: yes, Audio: no

+ Search Library: Search Cancel

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Jun 13, 2022

Surface Temperature (°F)

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Activities Start SOS Wed 1:31 PM

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Code42 CrashPlan

SOS_new_bedford.jpg

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SOS Stream GUI - /home/sos/sosrc/ssp_climate_models.sos

SOS File Library Controls Utilities

CURRENT DATASET

Name: Sea Surface Temperature - Real-time Details

PLAYBACK

363

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MajorCategory: Snow and Ice, Animate: yes, Audio: no

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Jun 13, 2022

Sea Surface Temperature (°F)

-35 41 67 79 90

On a Sphere®

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SOS_new bedford.jpg
2048.mp4

SOS Stream GUI - /home/sos/sosrc/ssp_climate_models.sos

SOS File Library Controls Utilities

CURRENT DATASET

Name: Tropical Cyclone Heat Potential - June 2021 - June 2022 Details

PLAYBACK

49

Clear

1. Ocean Acidification: Saturation State - SSP1 (Sustainability) - 2015 - 2100
MajorCategory: Water, Animate: yes, Audio: no

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MajorCategory: Snow and Ice, Animate: yes, Audio: no

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Jun 06 2022

Tropical Cyclone Heat Potential (kJ/cm²)

0 112.5 225

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Activities Start SOS Wed 1:35 PM

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SOS Stream GUI - /home/sos/sosrc/ssp_climate_models.sos

SOS File Library Controls Utilities

CURRENT DATASET

Name: Sea Surface Temperature Anomaly - Real-time Details

PLAYBACK

364

Clear

1. Ocean Acidification: Saturation State - SSP1 (Sustainability) - 2015 - 2100
MajorCategory: Water, Animate: yes, Audio: no

2. Ocean Acidification: Saturation State - SSP2 (Middle of the Road) - 2015 - 2100
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MajorCategory: Snow and Ice, Animate: yes, Audio: no

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Jun 13, 2022

Sea Surface Temperatures Compared to the 1981-2010 Average

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Activities Start SOS Wed 1:36 PM

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Code42 CrashPlan

SOS_new_bedford.jpg

2048.mp4

SOS Stream GUI - /home/sos/sosrc/ssp_climate_models.sos

SOS File Library Controls Utilities

CURRENT DATASET

Name: Sea Surface Temperature Anomaly - Real-time Details

PLAYBACK

356

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Jun 05, 2022

Sea Surface Temperatures Compared to the 1981-2010 Average

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On a Sphere®

Moving around SOS

Moving around SOS

Simple/Quick Move: Where are your clothes made?

Simple/Quick Move: 70% water pass the earth-ball;

Moving around SOS

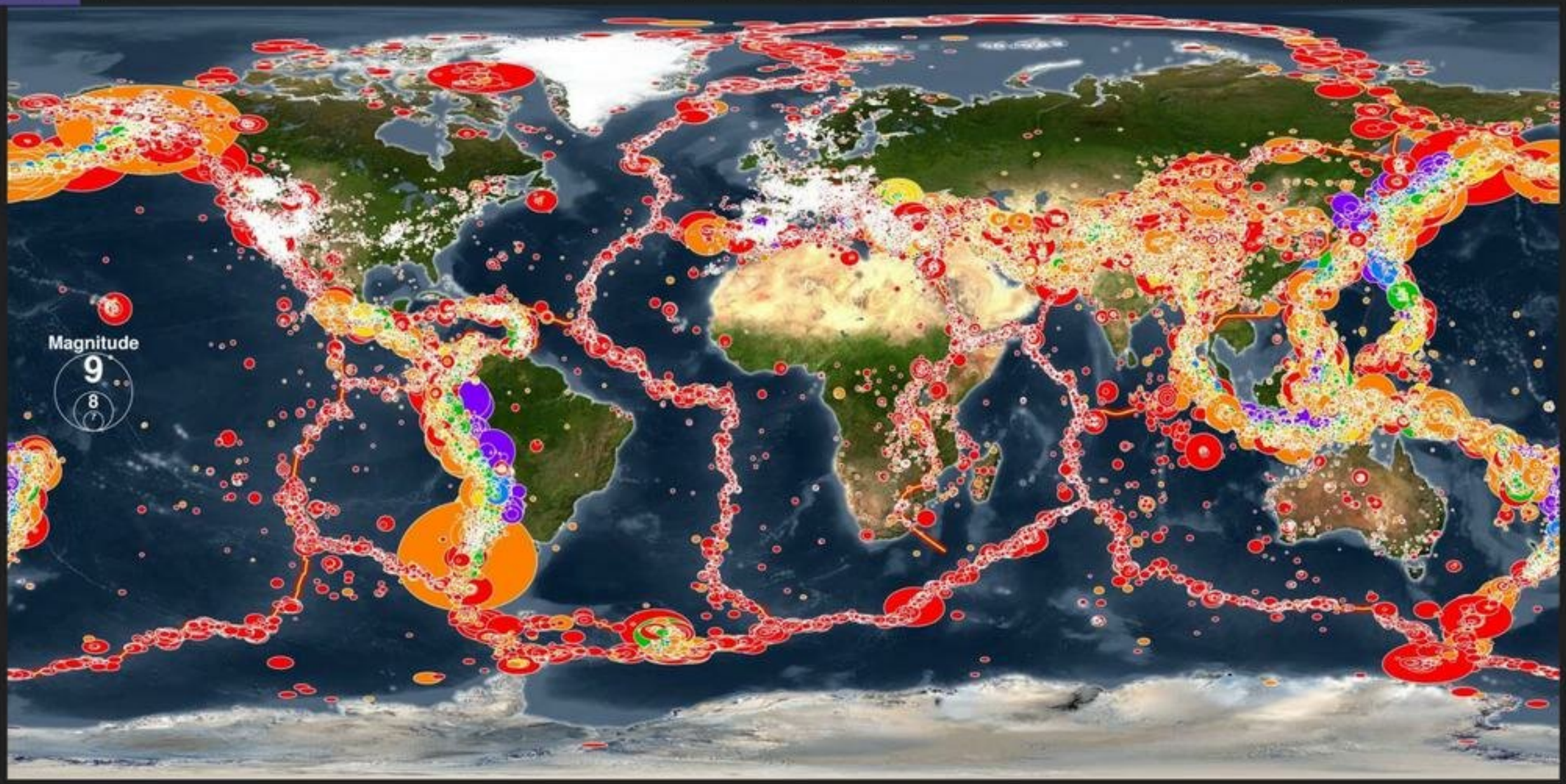
Simple/Quick Move: Where are your clothes made?

Simple/Quick Move: 70% water pass the earth-ball;

Walk around and make observations as pairs then share out. Example: Earthquakes of the 20th Century
What do you notice?

Photos - All_Quakes_1901-2000_4k.jpg

See all photos | Add to | Edit & Create | Share



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What do yo

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Photos - Hurricane Track Ball 11x17.jpg

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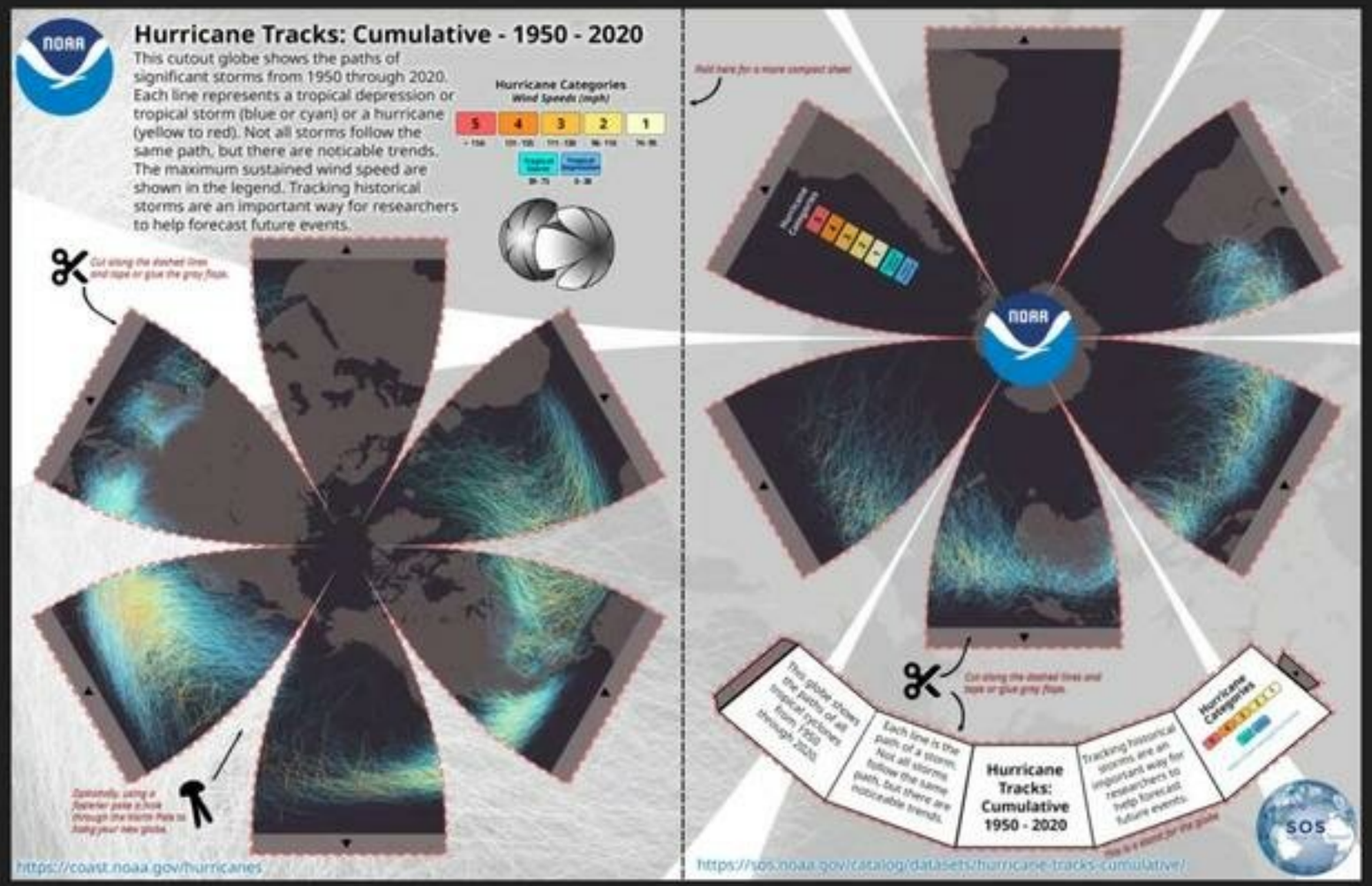

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SOS Cut ou

Photos - La Nina 11x17.jpg

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Sea Surface Temperature Anomaly

Sea surface temperature anomaly is the difference between the current temperature and the long-term temperature average. Negative temperature differences indicate that the ocean is cooler than average, while positive temperature difference indicate that the ocean is warmer than average. Tracking sea surface anomalies helps scientists quickly identify areas of warming and cooling, which can effect coral reef ecosystems, hurricane development, and the development of El Niño and La Niña.

Difference from Average Temperature

9°F

0°F

-9°F

Cut along the dashed lines and tape or glue the gray flaps.

Optionally, using a skewer poke a hole through the north Pole to hang your new globe.

https://www.climate.gov/enso

Fold here for a more compact shape

Cut along the dashed lines and tape or glue gray flaps.

Sea Surface Temperature Anomaly

SOS

https://sos.noaa.gov/catalog/datasets/sea-surface-temperature-anomaly-real-time/

1:50 PM
6/15/2022

Moving around SOS

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SOS Cut outs - Hurricane Tracks; La Nina (SSTA)

Food webs - Weaving the Web - http://forces.si.edu/ltop/pdfs/2-5-WeavingTheWeb.pdf

Food for Thought - PowerPoint

File Home Insert Design Transitions Animations Slide Show Review View Acrobat Tell me what you want to do... Sign in Share

Cut Copy Format Painter Paste — Clipboard
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Arrange Quick Styles Shape Fill Shape Outline Shape Effects
Find Replace Select
Create and Share Adobe PDF — Adobe Acrobat

Document Recovery

PowerPoint has recovered the following files. Save the ones you wish to keep.

Available Files

Food for Thought.pptx [A...
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Food for Thought.pptx [...
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Which file do I want to save?

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1 Food for Thought

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Science On a Sphere

- Informal education
- Interactive … in a physical sense

Click to add notes

Slide 2 of 12 Recovered

Notes Comments 108%

1:51 PM
6/15/2022

Food for Thought

Educational Outreach with NOAA's Science On a Sphere

Stephen Zepecki – NOAA Headquarters

Science On a Sphere

- Informal education
- Interactive … in a physical sense

Activity: Food Web Demonstration

Weaving the Web

http://forces.si.edu/ltop/pdfs/2-5-WeavingTheWeb.pdf

Food Web Crasher

https://www.fws.gov/columbiariver/ANS/Activities/Activity_4.pdf

Web of Life Activity

https://www.epa.gov/sites/production/files/documents/weboflifeactivity.pdf


World Changing?
USING THE SPHERE TO LIFT

Food for Thought - PowerPoint

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Create and Share Adobe PDF

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Food for Thoug... Version created l... 6/15/2022 12:31 PM

Which file do I want to save?

Close

1 Food for Thought

2 Science On a Sphere

3 Activity: Food Web Demonstration

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Activity: Food Web Demonstration

Weaving the Web

http://forces.si.edu/ltop/pdfs/2-5-WeavingTheWeb.pdf

Food Web Crasher

https://www.fws.gov/columbiariver/ANS/Activities/Activity_4.pdf

Web of Life Activity

https://www.epa.gov/sites/production/files/documents/weboflifeactivity.pdf

Click to add notes

Slide 3 of 12 Recovered

Notes Comments 109%

1:53 PM 6/15/2022

Food for Thought - PowerPoint

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Document Reco...

PowerPoint has recovered the following files. Save the ones you wish to keep.

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Food for Thoug... Version created l... 6/15/2022 12:31 PM

Which file do I want to save?

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12

Data Sets used

- Fisheries Species Richness
- Loggerheaded Sea Turtle
- This is NOAA Fisheries
- Coral Reef Risk Outlook
- Bird Migration
- Seal and Seabirds Migration Tracks
- Temperature data

Click to add notes

Slide 11 of 12 Recovered

Notes Comments 109%

1:53 PM 6/15/2022

Food for Thought - PowerPoint

File Home Insert Design Transitions Animations Slide Show Review View Acrobat Tell me what you want to do... Sign in Share

Paste Cut Copy Format Painter | New Slide Layout Reset Section | Clipboard Slides Font Paragraph Drawing Editing Adobe Acrobat

Document Reco...

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Available Files

Food for Though... Version created f... 6/14/2022 9:42 AM

Food for Thoug... Version created l... 6/15/2022 12:31 PM

Which file do I want to save?

Close

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12

tips

- Ask probing questions – understand the content knowledge of your audience
- Make necklaces – that can be reused year after year

Click to add notes

Slide 12 of 12 Recovered

Notes Comments 109%

1:54 PM 6/15/2022

Moving around SOS

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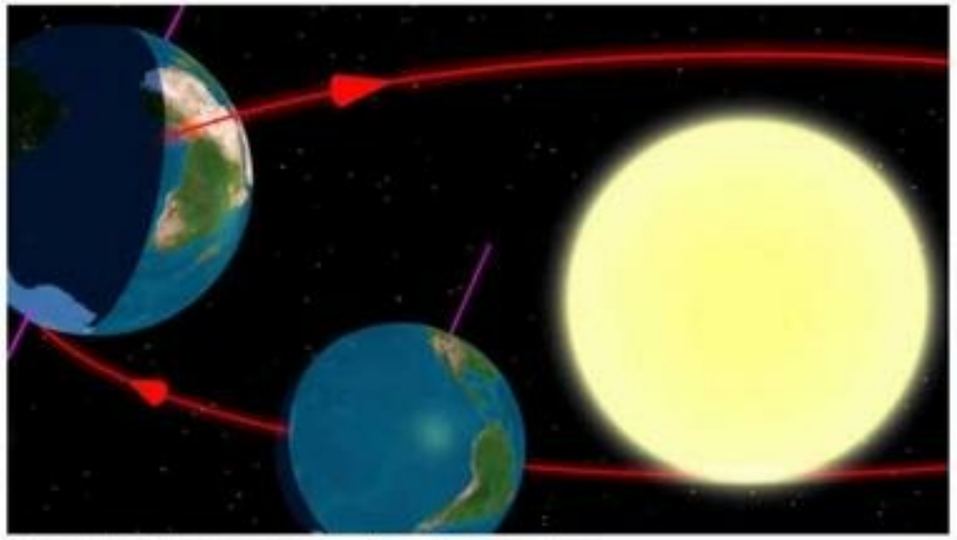
Food webs - Weaving the Web - http://forces.si.edu/ltop/pdfs/2-5-WeavingTheWeb.pdf

Kinesthetic Astronomy: Longer Days, Shorter Nights
https://www.calacademy.org/educators/lesson-plans/kinesthetic-astronomy-longer-days-shorter-nights

Kinesthetic Astronomy: Longer Days, Shorter Nights



"Diagram of the Earth's seasons as seen from the south" © 2006 Tau'olunga

This kinesthetic activity demonstrates to students that the earth's tilt is what is responsible for shifting light patterns and the change in seasons.

Appropriate for: 3rd Grade - 8th Grade
Standards for: 3rd Grade, 5th Grade, 6th Grade, 7th Grade, 8th Grade
Prep Time: 20 minutes
Activity Time: 60 minutes
Subjects: Earth & Space Science

Attached Files

- Lesson Plan
- Materials
- Kinesthetic Astronomy


1


2

3

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5

THE ZODIAC DIAGRAM

The diagram below depicts the modern order of the Zodiacal constellations relative to the Sun (not to scale). It also indicates Earth's orbital locations at the two solstices and two equinoxes. The boy represents Earth on the Kinesthetic Circle (as defined in the "Sky Time" lesson). If you know how to use a planisphere, you can confirm the positions of the constellations of the Zodiac along the ecliptic. Note also the effects of precession. When western astrological signs were first assigned, the Sun was "in" Aries at the Spring equinox. These days the Sun is between Pisces and Aquarius. Orion (below the ecliptic between Taurus and Gemini) is a familiar constellation for optional use in the "Sky Time" lesson.