Committed to Climate and Energy Education

CLEAN Teacher Newsflash
October 12, 2022

Hello Anne,

Climate change and warming temperatures are causing more intense tropical cyclones. With the resources included, students will explore this relationship, learn what causes a thunderstorm, and discuss the expected future intensity increase of storms. Use these links to build your hurricane lesson plan!

Storm/Hurricane Classroom Activities

- Activity: Investigating the effect of warmer temperatures on hurricanes
- Video: SciJinks: What causes a thunderstorm?
- Article: How Climate Change is Rapidly Fueling Super Hurricanes

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CLEAN Resource Feature: Activity

[Activity: Investigating the effect of warmer temperatures on hurricanes]

Audience: High School, College Lower

In this activity learners investigate the link between ocean temperatures and hurricane intensity, analyze instrumental and historical data, and explore possible future changes. With the completion of this activity students will: gain a better understanding of the relationship between ocean temperature and hurricane intensity, understand why the data available so far does reach definitive conclusions about what we should expect for the future, and evaluate other effects of climate change on hurricane damage.

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CLEAN Resource Feature: Video

Video: SciJinks: What causes a thunderstorm?
Audience: Intermediate

This video demonstrates what causes a thunderstorm. All thunderstorms need the same ingredients: moisture, unstable air and lift. Moisture usually comes from oceans. Unstable air forms when warm, moist air is near the ground and cold, dry air is above. Lift comes from differences in air density. It pushes unstable air upward, creating a tall thunderstorm cloud.

Learn More

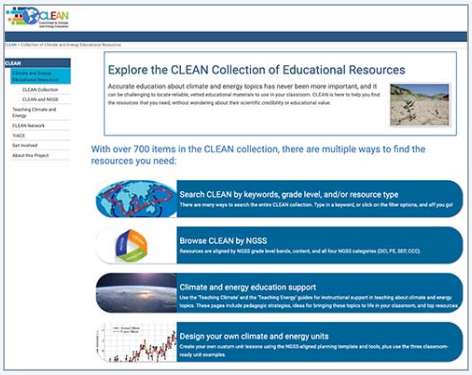
Read: How Climate Change is Rapidly Fueling Super Hurricanes

[Article: How Climate Change is Rapidly Fueling Super Hurricanes]

"As Hurricane Ian barreled toward Florida this week, it did what six other storms did over the past six years as they approached the United States: It intensified, quickly.
A few factors help account for the shift, including the warming waters — fueled by climate change — that give hurricanes more energy to release through crushing winds and pounding waves. Climate scientists suspect the slow movement of storms like Ian also stems from global warming, giving them a greater opportunity to strengthen and destroy as long as day-to-day conditions remain ripe."

Read More

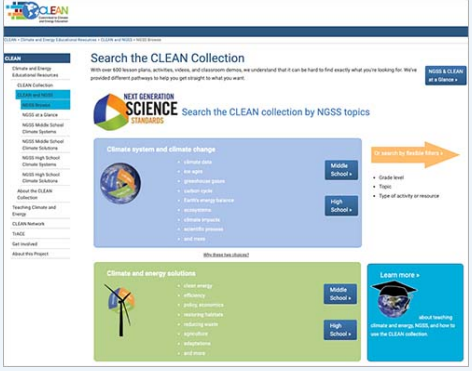
Other CLEAN Resources



Accurate education about climate and energy topics has never been more important, and it can be challenging to locate reliable, vetted educational materials to use in your classroom.

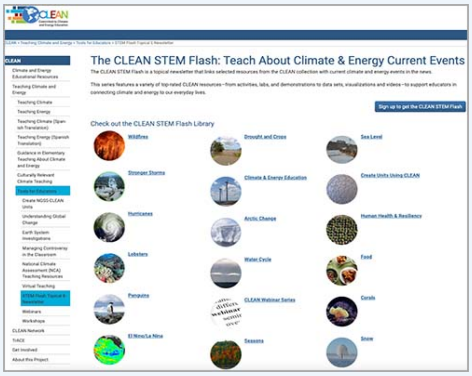
Explore the CLEAN collection of climate & energy learning resources

CLEAN supports teaching and learning about climate and energy with 850+ free peer-reviewed,



scientifically accurate, and classroom-ready resources.

Browse the CLEAN collection by NGSS topics



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Check out the CLEAN STEM Flash Library of past issues

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