



## EXCITING NEWS FOR ALL EDUCATORS!! NASA MISSION LAUNCHES THURSDAY FEBRUARY 27 #NASATEACHABLEMOMENTS WITH NGSS LINKS!

Join NASA as we count down the launch of the Global Precipitation Measurement (GPM) mission at 12:00 PM EST, Thursday, February 27, 2014. GPM is a joint mission between NASA and the Japan Aerospace Exploration Agency (JAXA) and it will set up a new standard in measuring rain and snow around the world. As we build up to the launch from Tanegashima Space Center in Japan, our NASA scientists will discuss the satellite's major innovations and the big questions GPM will set out to answer. Follow along on NASA Television (<u>www.nasa.gov/ntv</u>) and ask your big questions to the experts using #gpm on Twitter. GPM is scheduled to launch form Tanegashima Space Center at 1:07 PM EST on February 27, 2014. For more information, visit <u>www.nasa.gov/GPM</u>.

Check out the new #NASATeachableMoments. These are quick attention-grabbing snippets that will allow students to engage with the launch of GPM as well as follow the mission. These snippets will include references for each grade level to Next Generation Science Standards. (Remember, if you need the Common Core Standard, those are linked at the bottom of the NGSS.)

Use one a day or use them all at once. Your students will be able to connect what they are learning through a NASA mission!

## NASA GLOBAL PRECIPITATION MISSION THURSDAY FEBRUARY 27, 2014

## **#NASATeachableMoments**

#1:

K-ESS2-1: How can scientists measure snow or rain?

http://gpm.nasa.gov/education/videos/what-we-dont-know-about-snow-gcpex http://gpm.nasa.gov/education/videos/for-good-measure

http://gpm.nasa.gov/education/videos/faces-gpm-professor-steve-nesbitt-gpmground-validation-scientist

http://gpm.nasa.gov/education/lesson-plans/how-do-you-build-weather-satellite

**3-ESS2-1:** Where on the earth will Global Precipitation Mission measure snow and rain?

http://gpm.nasa.gov/education/videos/global-precipitation-measurementconstellation

http://gpm.nasa.gov/education/videos/our-wet-wide-world-gpm-overview

MS-ESS2-1: How can we measure the amount of water needed to affect surface weathering?

http://gpm.nasa.gov/education/lesson-plans/landslides-erosion http://gpm.nasa.gov/education/articles/satellite-monitors-rain-triggers-landslides http://gpm.nasa.gov/education/videos/faces-gpm-dr-dalia-kirschbaum-gpmapplications-scientist

HS-ESS1.B: What might cause an "ice age" and how can we determine a timeframe for it?

http://gpm.nasa.gov/education/lesson-plans/climate-change-online

#**2:** 

K-ESS2.1: Does weather have patterns? http://gpm.nasa.gov/education/videos/nasa-our-world-what-weather

3-ESS2-2: Is it important that GPM provides many measurements? <u>http://gpm.nasa.gov/education/videos/gpm-engineering-next-generation-observations-rain-and-snow</u> http://gpm.nasa.gov/education/videos/worldwide-rain-gauges-animation

MS-ESS2-3: How does water cycle?

http://pmm.nasa.gov/education/lesson-plans/water-cycle http://gpm.nasa.gov/education/lesson-plans/exploring-water-cycle

HS-ESS1.B: How does Earth's precipitation change from regional climates to global climates?

http://gpm.nasa.gov/education/lesson-plans/geographical-influences http://gpm.nasa.gov/education/lesson-plans/monsoons #3:

K-ESS2-1: How will observing and measuring weather help people? http://gpm.nasa.gov/education/videos/gpm-too-much-too-little http://gpm.nasa.gov/education/videos/gpm-hurricanes-beyond-tropics http://gpm.nasa.gov/education/videos/gpm-freshwater-connection

3-ESS2-2: Can we predict weather from what has happened in the past? <u>http://gpm.nasa.gov/education/videos/towers-tempest</u> <u>http://gpm.nasa.gov/education/videos/trmm-15-reign-rain</u>

MS-ESS2-3: Draw a model that helps you understand how water cycles. http://pmm.nasa.gov/education/lesson-plans/water-cycle http://gpm.nasa.gov/education/lesson-plans/exploring-water-cycle http://gpm.nasa.gov/education/interactive/water-cycle-webquest

HS-ESS2.C: What are the chemical and physical properties of water that make it so unique? http://gpm.nasa.gov/education/videos/anatomy-raindrop http://gpm.nasa.gov/education/lesson-plans/measuring-raindrops

**#4:** 

K-ESS2-2: Where does the water that falls to Earth as rain or snow go? <u>http://pmm.nasa.gov/education/lesson-plans/water-cycle</u>

3-ESS2-2: What is a pattern? http://pmm.nasa.gov/waterfalls/science

MS-ESS2-5: How does a drop in temperature of an air mass affect precipitation? <u>http://pmm.nasa.gov/resources/faq/what-causes-thunderstorms</u>

HS-ESS1: How will new technologies from GPM help advance climate science? <u>http://gpm.nasa.gov/education/videos/towers-tempest</u> <u>http://gpm.nasa.gov/education/lesson-plans/hurricanes-and-hot-towers-trmm</u> #5:

K-ESS2-2: What weather pattern would you like GPM to help you observe? <u>http://pmm.nasa.gov/articles/nasa-jaxa-prepare-gpm-satellite-launch</u>

3-ESS2-2: How can measuring weather patterns help us? <u>http://gpm.nasa.gov/education/videos/science-hungry-world-agriculture-and-climate-change</u>

MS-ESS2.C: How are global movements of water affected? http://pmm.nasa.gov/science/global-water-cycle

HS-ESS1: Describe one new technology introduced by GPM. How might this new technology be applied in a different arena? http://gpm.nasa.gov/education/interactive/gpm-core-observatory-paper-model

http://svs.gsfc.nasa.gov/vis/a010000/a011200/a011253/index.html