

New York State P-12 Science Learning Standards (NYSSLS)

MS. Weather and Climate

- ✓ Complete Standard for New York Middle School - Weather and Climate Standard
- ✓ MS-ESS2-5, ESS2-6, ESS3-5
- ✓ The Bundle will SAVE you 70%



UPGRADE to the Bundle



This Bundle:

- Get immediate access to my **COMPLETE** New York State Middle School Curriculum
- Every standard covered at a **HUGE DISCOUNT**

New York Middle School Science Curriculum

New York State P-12 Science Learning Standards (NYSSLS)

- ✓ Standards are directly aligned to New York State Middle School Science Standards according to the New York State Education Department
- ✓ The Bundle will SAVE you 80%



Click here to have a look

Resources Included

MS-ESS2-5

- How Air Masses Shape Our Weather Lesson
- Simulated Air Mass Collision - Lab Activity
- Weather Map Detective - Activity
- Water and Weather Lesson
- How Weather Works Reading
- Weather Climate Word Search and Scramble

MS-ESS2-6

- Regional Climates Lesson
- Atmospheric Circulation Reading
- Why The Wind Blows Reading
- Ocean Currents and Climate Simulation Activity

MS-ESS3-5

- Climate Change Lesson
- Climate Change Reading
- Biomass and Fossil Fuels Lesson
- Crash Course Video Worksheet: What is Climate Change
- Crash Course Video Worksheet Keep Warm & Stay Cool Without Fossil Fuels
- Climate Change Project
- Climate Change Crossword Puzzle Activity
- Climate Change Word Search and Scramble Activity
- Climate Change Lab Station Activity
- Climate Change - Digital Interactive Notebook Bundle
- Case Study - Polar Bear and Climate Change
- Case Study - African Elephant and Climate Change



Bundles Included

NGSS MS-ESS2-5 Curriculum Bundle

How Air Masses Cause Weather Changes

- ✓ 2 Lessons and 4 Activities
- ✓ Everything You Need to Teach NGSS MS-ESS2-5



NGSS MS-ESS2-6 Curriculum Bundle

How Unequal Heating and Earth's Rotation Shape Climate

- ✓ 1 Lesson and 3 Activities
- ✓ Everything You Need to Teach NGSS MS-ESS2-6



NGSS MS-ESS3-5 Curriculum Bundle

Climate Change & Global Warming Evidence

- ✓ 2 Lessons, 1 Project, and 9 Activities
- ✓ Everything You Need to Teach NGSS MS-ESS3-5



Everything You Need to Teach Middle School Weather and Climate in New York State using NYSSLS

Complete Lessons

Climate Change and Global Warming Lesson
6th, 7th, 8th Grade



- ✓ Complete Two-Day Lesson
- ✓ Interactive & Inquiry-Based
- ✓ Google & Distance Learning Ready
- ✓ Auto-Graded Exit Ticket & Quiz

Teach With A Prep

Regional Climates - Lesson
6th, 7th, 8th Grade

- ✓ Comprehensive Climate Overview – Covers latitude, altitude, oceans, landforms, and wind patterns
- ✓ Student-Friendly Format – Clear visuals and comparisons support understanding of complex concepts



Teach With A Prep

How Air Masses Shape Our Weather - Lesson
6th, 7th, 8th Grade

- ✓ How Air Masses Shape Our Weather: Air Masses, High- and Low-Pressure Systems, Weather Fronts, How weather changes and why it's so hard to predict weather accurately.
- ✓ Student + Teacher Versions: Office, Google, and PDF Versions
- ✓ Multimedia-Rich Lesson with No Prep Required



Teach With A Prep

Biomass, Fossil Fuels, and Acid Precipitation

- What is Biomass?
- Biomass → Fossil Fuels
- Burning Fossil Fuels and the Greenhouse Effect
- Fuel from Biomass
- Acid Precipitation and pH



Google Slides and PowerPoint Versions Included
Google Classroom Ready

Engaging Activities

Climate Change Project
6th, 7th, 8th Grade



- ✓ Engaging Research Project
- ✓ Guided Research Process
- ✓ Develop Critical Thinking & Collaboration

Teach With A Prep

Case Study – African Elephants and Climate Change



TWF

Ocean Currents and Climate Simulation Activity



- ✓ Hands-On Teacher or Student Demonstration
- ✓ MS-ESS2-6

Teach With A Prep

Reading Comprehension Passage & Questions

How Weather Works
6th, 7th, and 8th Grade Science

- ✓ No Prep, Ready-to-Use Resource in Google and Office Format
- ✓ Includes Comprehension and Extension Questions



Teach With A Prep

The Standard is Explained and the Resources it Incorporates are Outlined

MS. Weather and Climate – New York State – Middle School

MS-ESS2-5. Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions. [Clarification Statement: Emphasis is on how air masses flow from regions of high pressure to low pressure, causing weather (defined by temperature, pressure, humidity, precipitation, and wind) at a fixed location to change over time, and how sudden changes in weather can result when different air masses collide. Emphasis is on how weather can be predicted within probabilistic ranges. Examples of data can be provided to students (such as weather maps, diagrams, and visualizations) or obtained through laboratory experiments (such as with condensation).] [Assessment Boundary: Assessment does not include recalling the names of cloud types or weather symbols used on weather maps or the reported diagrams from weather stations.]

Resources:

- How Air Masses Shape Our Weather Lesson
- Simulated Air Mass Collision - Lab Activity
- Weather Map Detective - Activity
- Water and Weather Lesson
- How Weather Works Reading
- Weather Climate Word Search and Scramble

MS-ESS2-6. Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates. [Clarification Statement: Emphasis is on how patterns vary by latitude, altitude, and geographic land distribution. Emphasis of atmospheric circulation is on the sunlight-driven latitudinal banding, the Coriolis effect, and resulting prevailing winds; emphasis of ocean circulation is on the transfer of heat by the global ocean convection cycle, which is constrained by the Coriolis effect and the outlines of continents. Examples of models can be diagrams, maps and globes, or digital representations.] [Assessment Boundary: Assessment does not include the dynamics of the Coriolis effect.]

Resources:

- Regional Climates Lesson
- Atmospheric Circulation Reading
- Why The Wind Blows Reading
- Ocean Currents and Climate Simulation Activity



MS-ESS3-5. Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century. [Clarification Statement: Examples of factors include human activities (such as fossil fuel combustion, cement production, and agricultural activity) and natural processes (such as changes in incoming solar radiation or volcanic activity). Examples of evidence can include tables, graphs, and maps of global and regional temperatures, atmospheric levels of gases such as carbon dioxide and methane, and the rates of human activities. Emphasis is on the major role that human activities play in causing the rise in global temperatures.]

Resources:

- Climate Change Lesson
- Climate Change Reading
- Biomass and Fossil Fuels Lesson
- Crash Course Video Worksheet: What is Climate Change
- Crash Course Video Worksheet Keep Warm & Stay Cool Without Fossil Fuels
- Climate Change Project
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Who is this Bundle for?

- Teachers who teach middle school science in **New York State** and use the **NYSSLS** NGSS.
- Teachers who want multiple resources at their fingertips including lessons and a variety of activities, in order to meet the standard.
- Teachers who don't have time to develop their own resources or organize what to teach and when.

