



# Science Virtual Learning

# **7th Grade Science**

**April 13, 2020**



7th Grade Science  
Lesson: April 13, 2020

**Objective/Learning Target:**

**I can identify the phases a thunderstorm goes through and understand the process in which it forms.**

**Let's Get Started!**

On a sheet of paper, use your prior knowledge and write down how you think the water cycle and thunderstorms are related?

## Quick Review

If you can recall, the water cycle is an important process that help maintain life on earth. Without this very important cycle thunderstorms could not be created. Watch this short [video](#) on the water cycle to see how it plays an important role with storm formation.

\*If you want to test your knowledge of the water cycle, try and score 5 point on this [game](#).





## Look over these resources

Watch this [video](#) from National Geographic. Think about how these storm clouds are created and how different temperatures play a role into the development of a thunderstorm.

Next, watch this [video](#) from Khan Academy. Think about the **water vapor** that is being evaporated into the clouds. Pay attention to the different weather conditions that can create various types of thunderstorms.





# Important Terms

**Water Vapor**-water that is in the form of a **vapor**, or gas. It is a part of the **water** cycle.

**Precipitation**- the release of water from the sky, it can be liquid or solid, for example, rain, sleet, hail and snow. Rain begins when small droplets of water join together in the clouds until they become too heavy and gravity pulls them down to earth.

**Water Cycle**- the continuous journey **water** takes from the sea, to the sky, to the land and back to the sea. The movement of **water** around our planet is vital to life as it supports plants and animals.

**Important factors in storm development are:**

1. An Energy source
2. Moisture
3. Unstable air

# Answer these Important Questions!

1. What factor drives the development of all hurricanes?
2. The greater the \_\_\_\_\_ difference between a storm cloud and its surroundings, the faster, \_\_\_\_\_, and more intense it will grow.
3. What factors are needed for a severe storm to form?
4. What are the 4 types of thunderstorms?'
5. After watching the videos, explain how the water cycle and storm form are related with your new knowledge.



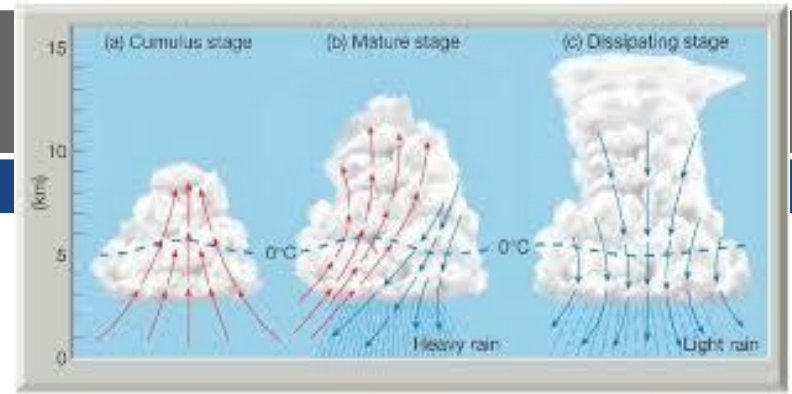
# Answers to the Questions

1. Heat
2. Temperature; Hotter
3. Energy, Moisture, and unstable air
4. Single-cell, multi-cell, squall line and supercell
5. The water cycle explains how the water is evaporated (evaporation) forming storm clouds (condensation) that then build and can release violent weather through rain, hail, or snow (precipitation).



# Create a Foldable

Use this [site](#) to gather information to create a foldable of the different stages of a Thunderstorm.



Materials you will need for this is white computer paper, scissors, a pencil and color pencils if you want.

Directions: (More detailed directions are on the following slides)

1. Fold the computer paper hot dog style and then cut along the centerfold. You will only use half the paper for this activity.
2. Then fold the paper accordion style into three sections and label each box (Stage 1, Stage 2, and Stage 3.)
3. One side of the foldable will be a drawing of each phase, the back will be a description of what is happening at this phase.



# Foldable Steps

Step 1: Fold paper hot dog style.



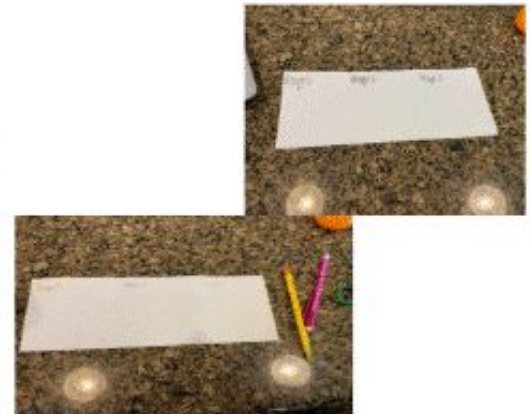
Step 2: Cut paper down the centerfold



Step 3: Take half the sheet and fold it into 3 sections accordion style.



Step 4: on each box label stage 1,2, and 3 on both sides



# Foldable Steps Continued

Step 5: Label both sides of the foldable

Stage 1: Cumulus Stage

Stage 2: Mature Stage

Stage 3: Dissipating Stage



Step 6: draw a picture that represents each stage.

Step 7: Write in the back of each box what is happening in that stage

Step 8: Color the images

# Different Components of Thunderstorms

Draw the table below on a piece of paper and fill in each box. Use this [site](#) and fill in the table.

<b>Thunderstorm Characteristics:</b>	<b>How Lighting is Formed:</b>	<b>How Thunder is created:</b>	<b>Different Precipitation Types:</b>	<b>Other Important Characteristics:</b>





# Different Components of Thunderstorms Answers

Draw the table below on a piece of paper and fill in each box. Use this [site](#) and fill in the table.

<p><b>Thunderstorm Characteristics:</b></p> <ol style="list-style-type: none"><li>1. Thunder</li><li>2. Lighting</li><li>3. Unstable air</li><li>4. Cumulonimbus Clouds</li><li>5. Heavy Rain</li></ol>	<p><b>How Lighting is Formed:</b></p> <p>An electrical current that is caused by different charges (positive and negative) come together to create lighting.</p>	<p><b>How Thunder is created:</b></p> <p>When lighting strikes, it creates a hole in the air. As the air comes back together, it creates a sound wave known as thunder.</p>	<p><b>Different Precipitation Types:</b></p> <ol style="list-style-type: none"><li>1. Rain</li><li>2. Hail</li><li>3. Snow</li></ol>	<p><b>Other Important Characteristics:</b></p> <p>Answers can vary. Whatever you might find interesting about Thunderstorms.</p>
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