

Weather and Climate

Grade Level(s)

3rd - 5th

Estimated Time

30 minutes

Purpose

Students will learn about weather patterns and how weather affects farming.

Materials

- Climate v Weather Crash Course Video
- Climate v Weather Sheet
- Journal/Blank Pages for Weather Tracking Journal
- Climate Types PowerPoint

Links:

Instructional video: [\(1\) Weather and climate lesson instructions - YouTube](#)

Online resources: www.linncoag.com- 2020/21 virtual learning-

Climate v Weather Crash Course: <https://www.youtube.com/watch?v=YbAWny7FV3w>

Vocabulary

Weather: state of the atmosphere at a place and time as regards to heat, dryness, sunshine, wind, rain, etc.

Climate: the weather conditions in an area over a long period of time

Arid: extremely dry, little to no rain

Ahumic: derived of humus

Background - Agricultural Connections

Students will be able to recognize the difference between climate and weather as well as learn how these two factors affect agriculture and crop growth. Students will learn about crops, climates, and weather patterns both locally and worldwide.

Interest Approach – Engagement

Ask the students to write down their definition of weather and their definition of climate using the Climate v Weather Sheet.

Procedures

1. Watch the instructional video
2. Watch the Climate vs Weather Crash Course video.
3. Discuss with students their new answers on what climate and weather mean. Ask students how they think the weather and climate affect agriculture and crops.

4. Present the Google Slides on Climate/Weather and Farming or pass out the printed sheets.
- climate types: Tropical, Arid, Mediterranean, Temperate, Continental, and Polar.
5. Ask the students to brainstorm how daily weather patterns affect farming? Rain, wind, frost, hail, drought, humidity, early snow, late snow, etc.
 - Rain can cause fields to become muddy, making it hard to plant or harvest.
 - Wind can cause crops to lean or fall (derecho)
 - Frost can be the end to many vegetable and fruit seasons
 - Hail can cause crop damage
 - Drought and humidity can cause stress to crops
 - Early snow can make it hard to finish harvest
 - Late snow in the season can make it hard to plant in time
6. Explain to students that they will be tracking the weather for the rest of the week on blank pieces of paper or in a journal. Record the average high and low temperatures that day, rain percentage, wind rates, etc.
7. At the end of the week, discuss how the weather this past week has likely affected crop growth.

Additional resources:

Seasons Ag Mag [ATC213J7 Seasons smartboard.pdf \(agintheclassroom.org\)](https://www.agintheclassroom.org/ATC213J7%20Seasons%20smartboard.pdf)

Organization Affiliation

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Agriculture Literacy Outcomes

T1.3-5.b Explain how the interaction of the sun, soil, water, and weather in plant and animal growth impacts agricultural production.

T2.3-5.c Explain how the availability of soil nutrients affects plant growth and development.

Iowa/ Common Core Standards

3-LS1-1. Develop models to describe that organisms have unique and diverse life cycles, but all have in common birth, growth, reproduction, and death.