

Understanding Common Storms and Weather Phenomena

Overview: In teaching students about common storms and weather phenomena, the goal is for the student to be able to investigate and understand the basic types, changes, and patterns in weather. The following lesson plans guide the student through learning about the types of precipitation: rain, snow, sleet, hail and types of severe weather: tornado, flood, drought, blizzard, and hurricane.

Procedure:

Types of Precipitation

1. Teacher will give instruction regarding types of precipitation. There are numerous Discovery Education videos on this topic that will be helpful.
2. Teacher will provide student with the adapted book *Types of Precipitation* (provided). Student will investigate by reading the book while interacting with the content directly on the each page.
3. Student will investigate by interacting with the SMARTnotebook activity, *Types of Precipitation* (provided).
4. Teacher will provide the student with instructions and the *Weather Around Me* chart. The student will write the start date on the top. The student will independently collect data each day for the four types of precipitation.
5. Student goes to the library or uses the Internet to investigate more information about the various types of precipitation and records one new fact for each type of precipitation. The student can write or use word prediction software to write these facts.
6. Teacher will provide the student with the *Foldable - Hail, Rain, Sleet, Snow*.
7. When the time is up to stop collecting data on the *Weather Around Me* chart, write the end date. Add up how many days there was precipitation for each type. Answer the questions that go with the graph. If the teacher or student wants to do this activity again, complete it for another time. There might be divergent weather patterns at different times of the year.
8. When the student is ready to take the quiz, the teacher provides the *Quiz on Types of Precipitation* (one with visual supports and one without visuals are provided).

Types of Severe Weather

1. Teacher will give instruction regarding types of precipitation. There are numerous Discovery Education videos on this topic that will be helpful.
2. Teacher will provide student with the *adapted book Severe Weather* (provided). Student will investigate by reading the book while interacting with the content directly on the each page.
3. Student will investigate by interacting with the *SMARTnotebook activity, Severe Weather*.
4. Student goes to the library or uses the Internet to investigate more information about the various types of severe weather and records one new fact for each type. The student can write or use word prediction software to write these facts.
5. When the student is ready to take the quiz, the teacher provides the *Quiz - Severe Weather* (one with visual supports and one without visuals are provided).

6. If the student has access to using apps, here is one that would allow for more investigation and also allow for the student to be able to track weather and describe the weather in their community.

Kid Weather

This app was designed by a 6-year-old boy and his meteorologist dad to teach young children some basic weather elements. One activity allows kids to change the weather conditions to determine how they should dress. Kids can also calculate Fahrenheit and Celsius and learn weather-related trivia and safety tips related to various topics: clouds, lightning, seasons, weather symbols, and more. A charting feature allows your child to choose the day of the week and describe the weather so he can refer to it and remember weather terms like *foggy*, *mild*, and *warm*. (Ages 4 and up; \$1.99; iPhone, Android)

- [Download Kid Weather on iTunes >>](#)
- [Download Kid Weather on Android Market >>](#)

7. When the time is up to stop collecting data on the *Weather Around Me* chart, write the end date. Add up how many days there was precipitation for each type. Answer the questions that go with the graph. If the teacher or student wants to do this activity again, complete it for another time. There might be divergent weather patterns at different times of the year.

ASOL Covered:

3S-ESS1: The student will investigate and understand basic types, changes, and patterns of weather. Key concepts include:

- a) identification of common storms and other weather phenomena.

5S-ESS 1: The student will investigate and understand how weather conditions and phenomena occur and can be predicted. Key concepts include

- a) weather phenomena.

HSS-ESS 3: The student will investigate and understand that energy transfer between the sun and Earth and its atmosphere drives weather and climate on Earth. Key concepts include

- a) observation and collection of weather data.
- b) prediction of weather patterns.
- c) severe weather occurrences, such as tornadoes, hurricanes, and major storms.

Materials Needed: *Types of Precipitation* (adapted book), *Severe Weather* (adapted book), *Quiz - Types of Precipitation* (one with visual supports and one without visuals), *Quiz - Severe Weather* (one with visual supports and one without visuals), *Weather Around Me* chart, *Severe Weather SMARTnotebook*, *Types of Precipitation SMARTnotebook*, *Foldable - Hail, Rain, Sleet, Snow*, computer/iPad for watching videos or investigating, paper and pencil (if needed for writing), *Co:Writer* (if needed for writing), *Weather and What to Wear*, *Word Cards for the Unit*, *vocabulary for Go Talk 9*

Instructional Setting: The instruction setting could be in a resource setting, general education setting, or self-contained classroom.

Community Connections and/or Peer Interaction: Knowing about weather also allows for students to know a common topic of conversation which can be shared with peers and others in the community. Being able to identify weather and how to dress is also important. Although this ASOL does not incorporate what to wear in these types of situations, this is a skill that could be embedded while teaching. An activity is included regarding this skill.

Functional Activity/Routine: Some skills that are incorporated into this activity/routine:

1. Students are working on skills that promote independence such as finding one new fact based on their research.
2. Completing research within a community setting such as the library.
3. Students will know how to prepare in various weather situations.
4. Weather is discussed anywhere and everywhere. This is a great way to make connections within the community if the student is able to communicate about the weather around them.

Strategies to Collect Evidence:

- Ways to investigate
 - Go to the library to find new information
 - Watch videos on these topics
 - Do research on the Internet to find one new fact
Make sure you include pictures with captions, dialogue, or videos with scripts
- Ways to demonstrate an understand basic types, changes, and patterns of weather
 - *Quiz - Types of Precipitation* (one with visual supports and one without visuals)
 - *Weather Around Me* chart
- Identification of common storms and other weather phenomena
 - *Quiz - Severe Weather* (one with visual supports and one without visuals)
 - *Weather Around Me* chart

Specific Options for Differentiating this Activity:

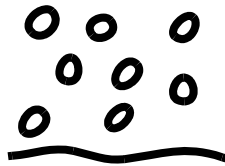
- Provide significant supports and modification:
 - Provide the vocabulary cards and give the student two choices allowing for selection to be made using eye gaze or pointing (these are provided for you.)
 - Provide limited choices on a voice output device such as a switch (can use cards provided for you) or Go Talk (a Go Talk 9+ with six colors are provided for you)
 - Provide the vocabulary cards and give the student two choices allowing for selection to be made using eye gaze or pointing (these are provided for you) and then write the information on the graph

Types of Precipitation

rain



snow

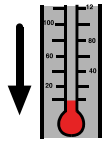
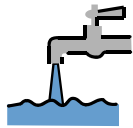
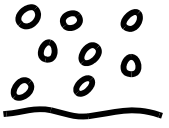


sleet

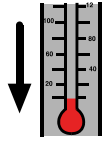
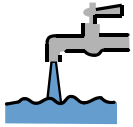


hail





Snow is water that freezes in the clouds and falls to



the ground. Water that freezes in the clouds and falls to the

ground is called:

snow

sleet

hail

rain



Hail is balls of ice that come from thunderstorm clouds.



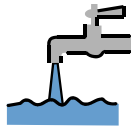
What is balls of ice that come from thunderstorm clouds?

rain

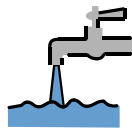
sleet

hail

snow



Rain is drops of water that come from the clouds.



What are drops of water that come from the clouds?

rain

snow

sleet

hail



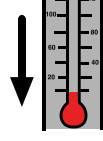
Sleet

is



rain

that



freezes

after it

falls

from the



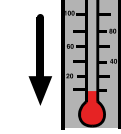
clouds.

What is



rain

that



freezes

after it

falls

from the



clouds?

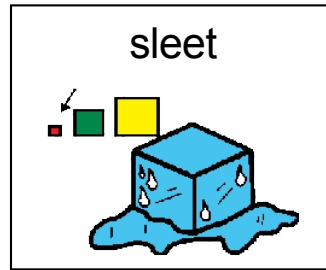
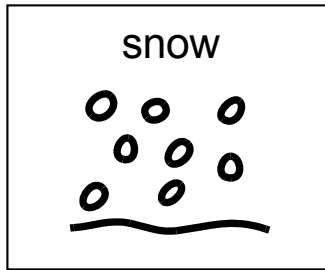
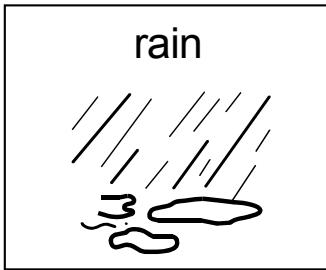
sleet

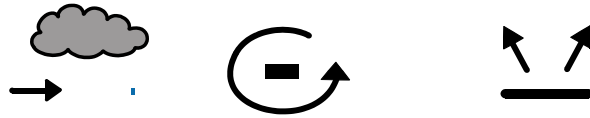
rain

hail

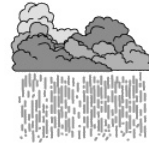
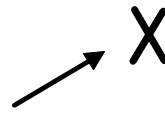
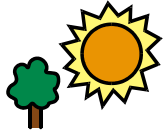
snow

The types of precipitation I need to know are:






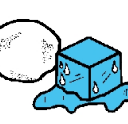


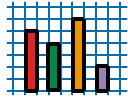
Types of Precipitation around me from _____ to _____.



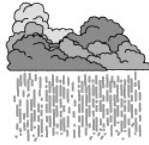
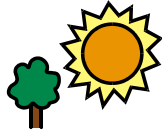
Each day you are at school, mark if there is rain, snow, sleet, or hail.

how many days?
?

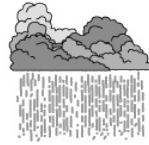
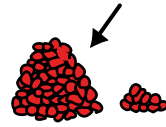
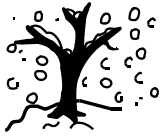
 rain																	
 snow																	
 sleet																	
 hail																	



Look at your graph and answer the questions.



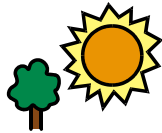
1. How many days did it rain? _____



2. Did it snow more than rain? _____



3. Did it sleet? _____

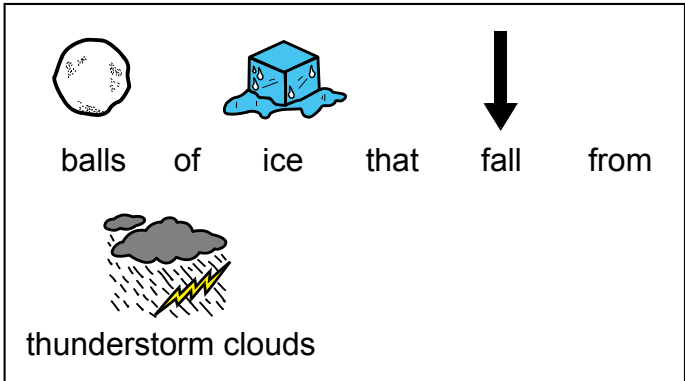
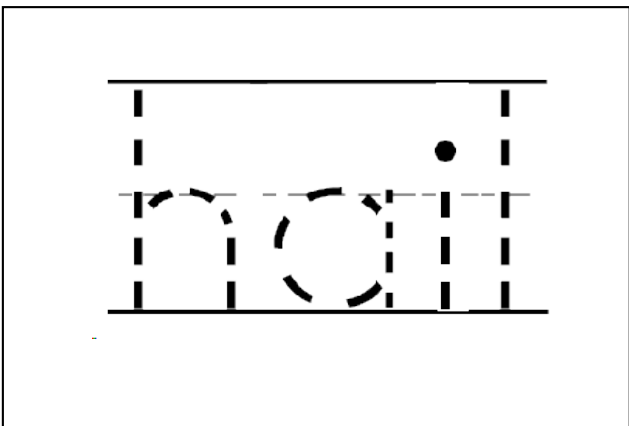
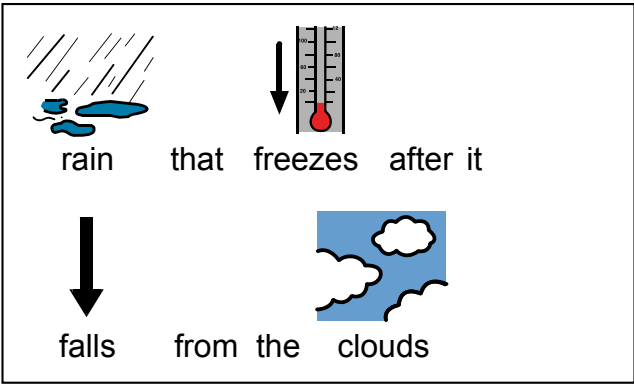
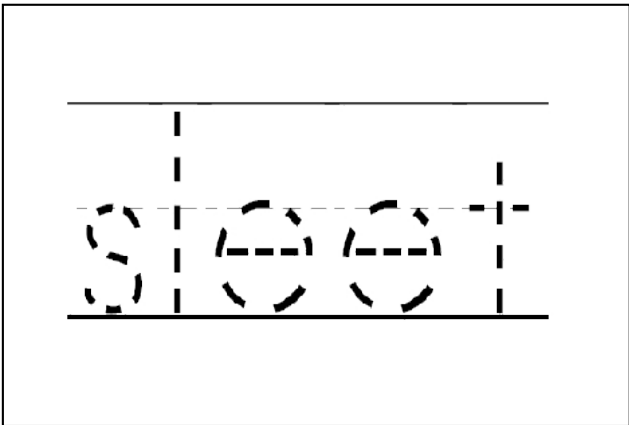
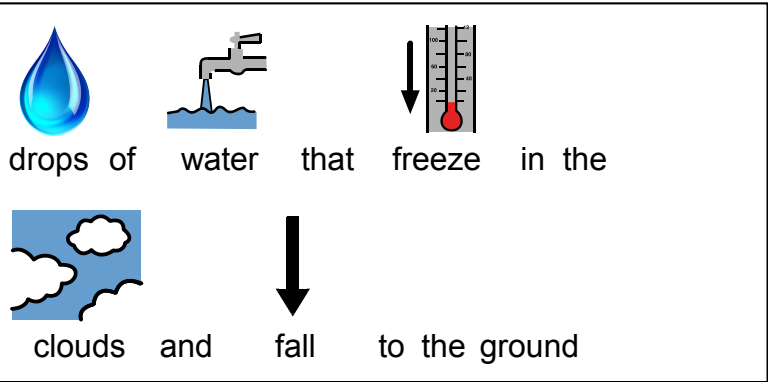
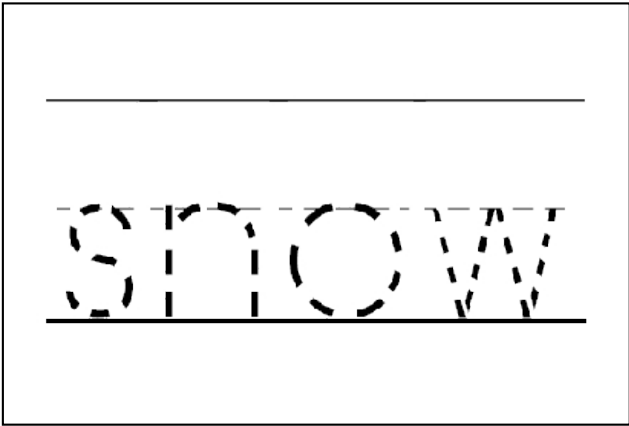
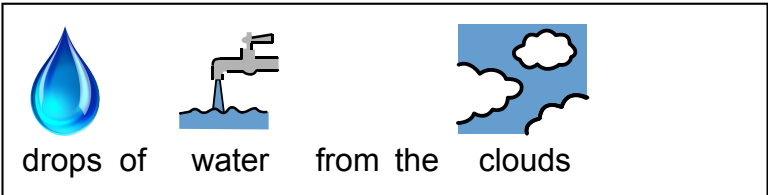
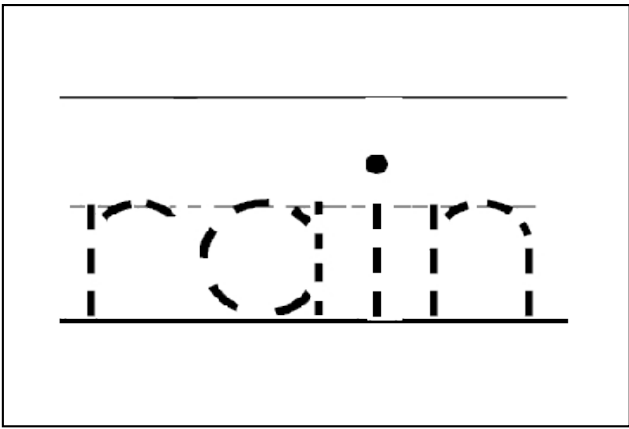


4. How many days did you have hail? _____



5. Was there a pattern? _____ If yes, what was the pattern?

This image shows a vertical line on the right side of the page, with three horizontal dashed lines extending from the left towards it. These lines are positioned at approximately one-third, two-thirds, and three-quarters of the way down the page, creating a template for writing.



Fold on the solid; cut on the dashed.