Looking Up, Do You See What I See?
Observe, Sketch, and Identify Clouds

Clouds get their names from their shape and how high they are in the sky. In this activity, learners will observe and sketch all the clouds they see in the sky, trying to observe different types of clouds at different heights in the sky. After sketching their sky, they will use the GLOBE Cloud Identification Chart to identify the different types of clouds they observed.

Purpose

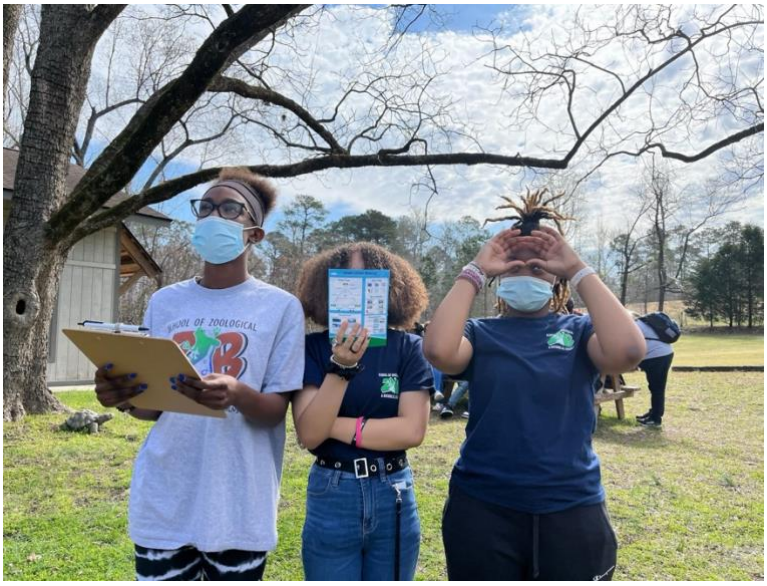
- To introduce learners to **cloud observations**.
- To engage learners in processes of identifying cloud types (**cumulus, stratus,** and **cirrus**) and **cloud altitude** (high, mid, low) in the sky.

Time

Approximately 30 minutes

Materials

- ☐ Journal
- ☐ Colored pencils
- ☐ Clipboards
- ☐ GLOBE Cloud Identification Charts
- ☐ Data sheets (included below)



Safety

Facilitators should investigate the cloud observation area before this activity to ensure they are free from potential safety hazards (fire ant mounds, traffic). Never look directly at the sun and be aware of your surroundings before you look up at the sky. Additionally, protective clothing, appropriate footwear, and sunscreen should be worn.

What to Do

Observing and Sketching

1. Have learners view and sketch the sky in their journals. Encourage them to stand, sit, and lie on the ground to sketch all of the different angles of the sky. Sketch all of the different clouds that they see.
2. As learners are sketching discuss the following:
    a. Are there differences in the clouds that you see?
    b. What do you think causes these differences?
    c. What do you observe in the sky around the clouds?
3. Have learners write words beside their cloud sketches to describe their shape and appearance. Examples: (fluffy, puffy, layered, flat, or wispy).

Using GLOBE Cloud Identification Charts to Identify Cloud Types

1. After learners have completed their sketches, have them use the GLOBE Cloud Identification Chart to identify the type of each cloud they sketched.
2. Complete the Looking Up, Do You See What I See? Data Sheet to sketch examples of type of cloud in each atmospheric level Use this as your own personal reference for future cloud observations.
3. Make a simple pie chart to represent the percentage of cloud types observed in the sky.

Questions for Review

1. Looking at your Cloud Identification Chart, what kinds of clouds do you think produce rain? *Nimbus is the Latin word for rain, so nimbostratus and cumulonimbus clouds produce rain.*
2. Why is it important to look at the entire sky from different angles when you make cloud observations?
3. For older learners: Why do you think clouds form at different levels in the atmosphere? *This could include air temperature at different heights, the level of moisture in the air, the wind, the amount of particulates in the air, and air pressure.*
4. At what atmospheric level would you find your coldest clouds? *High.* At what atmospheric level would you find your warmest clouds? *Low.*

Key Words

Cloud Altitude: The height of the cloud's base. The three levels of cloud altitude are low, middle, and high.

Cloud Observation: Identifying different cloud types in the sky

Cumulus Clouds: Low, fluffy, heaped clouds that look like cotton candy

Stratus Clouds: Long, low layered clouds that stretch across the sky horizontally

Cirrus Clouds: Wispy, thin clouds that are high in the sky and often called “mare’s tails”

Extension for Older Learners

Install the GLOBE Observer app and then watch the tutorial. Make cloud observations for one week and create a visual representation of your data showing the cloud types and cloud altitude recorded over the course of the week.

Looking Up, Do You See What I See?

Sketch a picture and write clue words under the name of each cloud type that will help you identify each cloud when you go outside and observe.

High Clouds

Cirrus	Cirrostratus	Cirrocumulus	Contrails

Medium Clouds

Altostratus	Altocumulus

Low Clouds

Cumulus	Stratus	Stratocumulus

Outside, what do you see? Sketch the clouds and use descriptive words to describe the clouds that you see.

NASA satellites observe the clouds looking down, while you observe the clouds looking up. How might the two observations be different?