Make a cloud mobile

1 Overall aims:

- Learn about the different shapes of the clouds.
- Find out what the different shapes of the clouds meaning for the upcoming weather.
- Stimulate imagination.
- Develop the ability to observe

2 Vocabulary - keywords

Clouds, shapes, mobile

3 Sustainable abilities developed

- Systematic Thinking
- Strategic Competency
- Critical thinking competency

4 Pillars of sustainability included

- Environmental
- Economic

5 STEAM domains

S, E, A

6 Teaching methodologies/activity outline

Before the activity:
Teacher explains to pupils that the clouds are different shapes, and they can mean very different things for the upcoming weather:

Cumulonimbus clouds are the kings of all clouds, rising from low altitudes up to more than 12,000 meters (40,000 feet). They grow due to rising and falling currents, with their tops

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flattening out into an anvil shape. Cumulonimbus are a sure sign of severe weather, with heavy rain and possibly hail.

Cirrus clouds look like delicate strands or hooks. They are made mostly of ice crystals. Cirrus are high clouds. They often look thin and patchy or feathery. Their name means "curl of hair."

Cumulus clouds are fluffy and cauliflower-like, with rounded white tops and flat grayish bases. They are mid-level clouds.

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Nimbostratus clouds are low-level, dark, gray clouds that are dropping rain or snow. They usually cover the entire sky. Sometimes nimbostratus appear higher in the atmosphere, in the mid-altitudes.

What to do:

- Draw the different shapes of clouds.
- Use scissors to cut out the draws of cloud patterns
- Place the paper cloud shapes on top of the Styrofoam boxes or cardboard and trace around them with the pencil.
- Use the scissors to cut the cloud shapes from the Styrofoam or cardboard.
- Find the cumulonimbus and nimbostratus cloud shapes. These are the two types of rain clouds. To make rain, fold the mylar shred in half and tape the pieces to the bottom of the cloud.
- Use the point of the pencil or skewer to poke holes in the tops of each of the clouds.
- These are the holes you'll use to hang the clouds from the skewers. Some of the longer clouds (such as the nimbostratus cloud) will need two holes to help them balance while hanging.
- The cirrus and cumulonimbus clouds go highest in the atmosphere; tie the free end of the thread from each of those clouds to the long skewer.
- The nimbostratus and cumulus clouds are lower in the atmosphere; tie those clouds to the short skewer.
- Use two pieces of thread and tie the ends of the short skewer to two points on the long skewer. The short skewer (and the clouds that are lowest in the atmosphere) will hang below the long skewer.
- Now, tie a thread near the center of the long stick. Again, you may have to experiment to find the right spot to balance the weight of the mobile. Use this thread to hang the mobile somewhere that it can dance freely in the breeze!

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7 Expected learning outcomes

The child will be able to:

- follow instructions
- develop fine and gross motor skills
- enhancing the ability to observe and to listen.

8 Assessment

The evaluation is implemented through observation of the activity by the teacher who assesses pupils' commitment and participation.

9 Equipment and materials to be used in learning unit (tools, ingredients etc)

- 2 or 3 large Styrofoam take-out boxes or pieces of white cardboard
- 2 thin, lightweight sticks (like wooden skewers); one stick should be about 12 inches long and the other should be 8 inches long
- Mylar shred (such as used for gift baskets)
- White sewing thread or lightweight string
- Scissors
- Pencil
- Clear tape

10 Kind of setting - lab, kitchen, outdoor etc.

Indoor, outdoor

11 References - source:

https://spaceplace.nasa.gov/cloud-mobile/en/

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