

Science in Weather Lesson Plan

Science and Technology Branch

Lesson Plans are designed to accompany the related Helps documents for each Step. Please refer to the resources in the appropriate Helps document found in the Leader Pages while you prepare your lesson.

The six “F”s are presented in a suggested order, but you are not required to complete them in that order. You may rearrange them as fits your troop’s particular needs.

Necessary Resources

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- 2-liter bottle
- Matches
- Cardstock
- Cotton Balls
- Markers



- 2-liter bottle
- Matches
- Paper
- Pencil
- Blue Construction Paper
- Cotton Balls



- Baseball Bat
- Supplies needed for the weather station:
http://www.ehow.com/how_4867576_make-simple-weather-station.html

FUN



Obstacle Course

Set up an obstacle course for the Trailmen to follow. Time each Trailman for the quickest time. Before each Trailman begins the course, he must stand a baseball bat upright on the ground, place his forehead on it, and spin around 5 times.



Cloud in Bottle

Fill a 2-liter bottle about 1/8 full of warm water. Place the lid tightly on the bottle; squeeze the bottle with both hands. Hold it there for a moment then release pressure while still holding the bottle. Did anything change (probably not)?



Open the bottle and return it to its original shape. Allow one boy to light a match and drop it into the bottle. It will extinguish when it hits the water. Replace the lid and squeeze again. Did something happen this time? Repeat the last two steps several times to allow each boy to light a match and drop it in the bottle.

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Here are a few hints nature gives us:

- Trail Life USA / Woodlands Trail 2.0 / Science and Technology Branch / Science in Weather / 20170830 / 4

God, in his wisdom, made plants and animals to react to coming weather in certain ways. We are wise when we look for those clues and heed the warnings they give us.



Meteorology!

If possible, watch a video about clouds:

<http://www.youtube.com/watch?v=7MnxnOHCCic>

Identify and describe the three main cloud types and how they affect weather:

<http://eo.ucar.edu/webweather/cloud3.html>. Discuss the following types of clouds:



- Stratus: low clouds
- Altostratus: middle clouds
- Cirrus: high clouds
- Cumulus: clouds with vertical development

Ask the Trailmen what they think it means when you add the word “nimbus” to the name of a cloud. If no one guesses correctly, tell them that “nimbus” indicates a rain cloud.

Weather Terms

Discuss weather with the Trailmen. Address terms such as temperature, precipitation, humidity, fronts, high pressure system, low pressure system, etc.

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Glue or tape pictures on a piece of cardstock to help the Foxes remember some things about the weather. Some things to glue or draw might be:

- Cumulus clouds (use cotton balls glued close together into a cloud)
- A turtle
- A moon on a black background (let the boys color a white circle around the moon)
- Ants
- Mare's tail clouds (print pictures from the internet in advance)
- A red sky (show a picture of a red sky for boys to color, or print pictures from the internet in advance)
- Cows lying down
- A campfire on dark paper (color the smoke "hanging low")



Give each Trailman a sheet of blue construction paper and several cotton balls. Have the Trailmen tear cotton balls apart to make models of each type of cloud. Glue each type of cloud to the construction paper, and label the clouds using black marker.



Weather Station

Make a simple weather station.

http://www.ehow.com/how_4867576_make-simple-weather-station.html

Or

Weather Map

View a current local weather map and discuss the symbols such fronts, highs, lows, precipitation, etc. A radar map can be pulled up on the internet as well.

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Pray with the Trailmen.



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- What did the weatherman say the weather would be like for tomorrow?
- What did he say it would be like for the next week?
- Will it rain?
- Will it be hot and dry?
- Will it snow?



- Temperature (Was it warmer, cooler, or the same as yesterday?)
- Wind (Was it calm or windy? What was the direction of the wind?)
- Precipitation (Was it rainy or dry?)
- Clouds (What type of clouds do we see?)

A cartoon illustration of a lion's head, facing right. The lion has a golden-brown mane and a friendly expression with a slight smile. The background is white.

Predict the Weather

Discuss the potentially dangerous weather condition(s) in your community. Make a plan for safety precautions and procedures with these conditions.

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