

# \*\*\* Curriculum for Informal Education Settings \*\*\*

## Weather & Climate Science



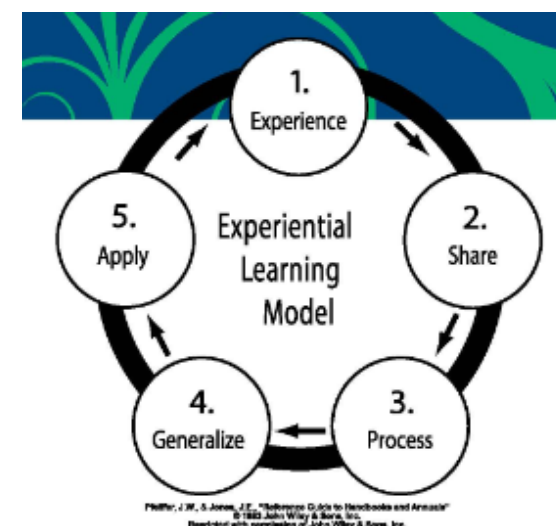
### CURRICULUM DEVELOPMENT

#### GOAL

Communicate science effectively to those learning in informal settings (outside the formal classroom)

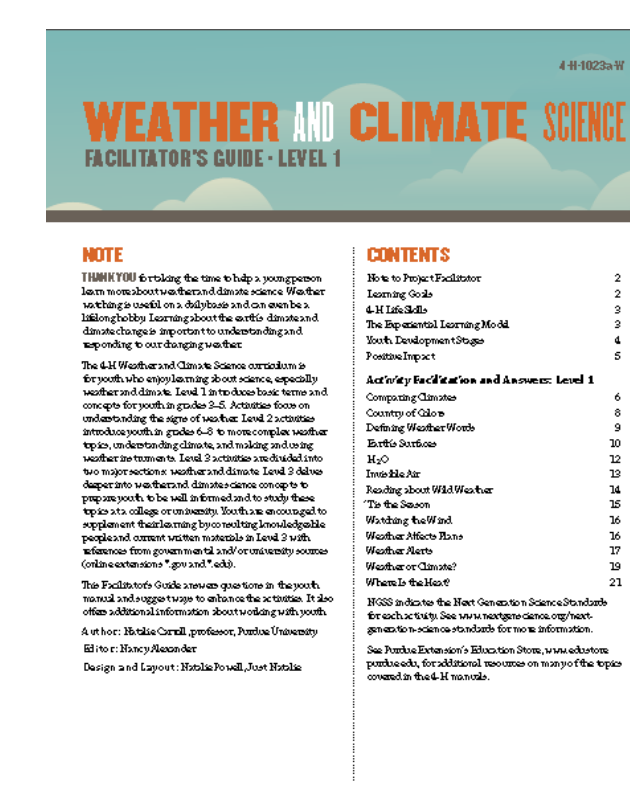
#### MAJOR COMPONENTS

- Curriculum Development Team
- Planning – audience, goals, objectives
  - Logic Model
  - Scope & Sequence



- Writing – template, experiential learning

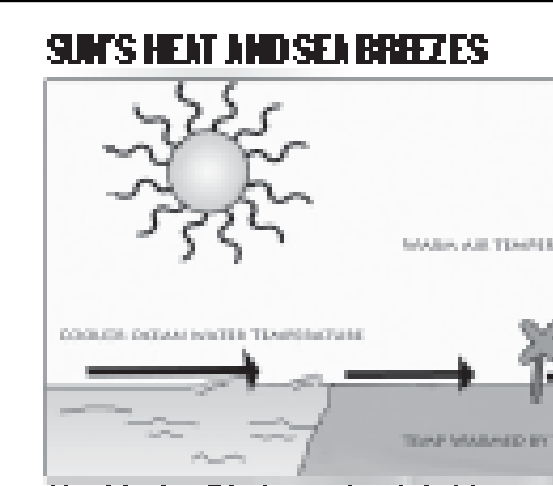
- Edits and Reviews
  - Pilot Test
    - Revisions
      - Design & Layout
      - Web Accessibility
      - Printing & Marketing



### WEATHER & CLIMATE SCIENCE CURRICULUM

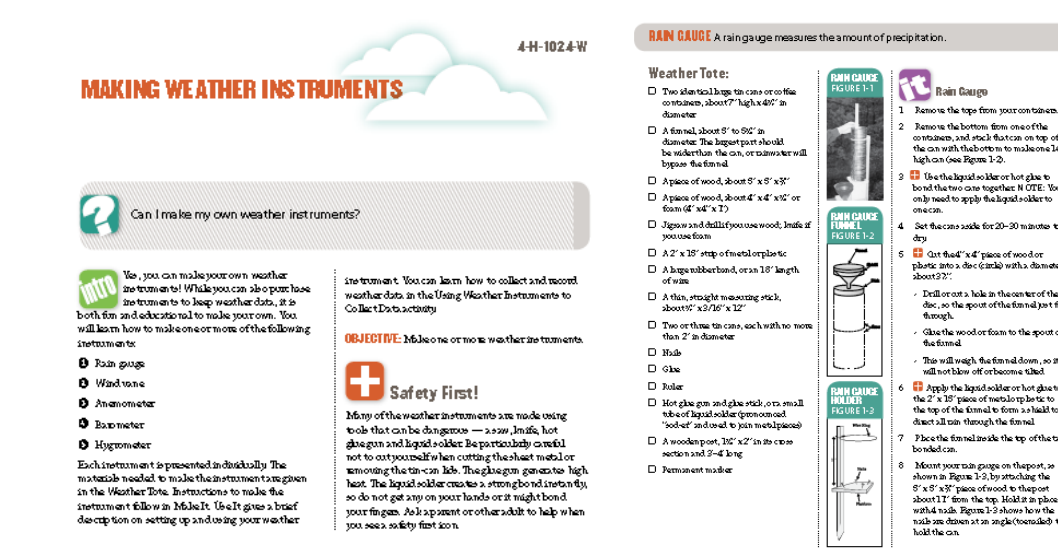
**LEVEL 1: Activities focus on basic weather terms and concepts and helps students understand the difference between weather and climate.**

- Weather terms and Earth's Surfaces
  - Air and H<sub>2</sub>O
    - Comparing Climates
      - Weather Processes
        - Weather – or – Climate?



**LEVEL 2: More complex weather topics and understanding climate. Also, making and using weather instruments.**

- Clouds
- Earth Processes
  - Greenhouse Effect
    - Tornadoes and Hurricanes
      - Weather Topics
        - Weather Instruments

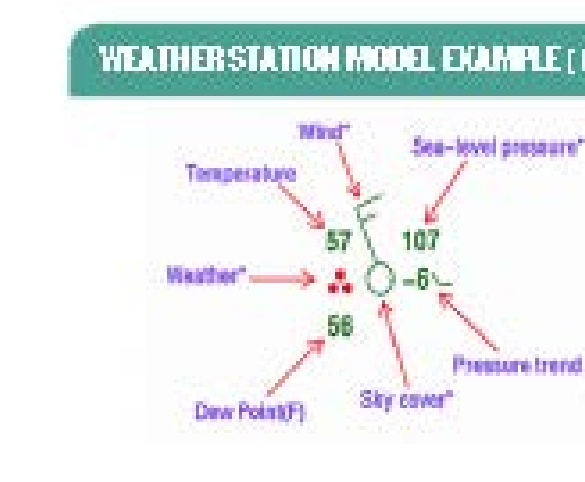


Each manual contains a compilation of experiential activities.

**LEVEL 3: Delves deeper into weather and climate science concepts.**

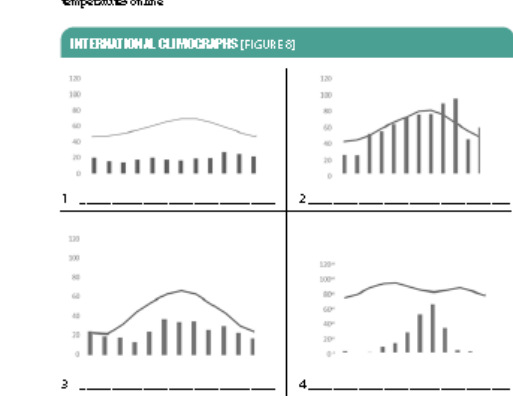
#### WEATHER

- CoCoRaHS
  - Weather Station Model
    - Weather Systems
      - Windchill and Heat Index



#### CLIMATE

- Climate and Climographs
  - Energy
    - Investigating Climate Change



### FACILITATOR'S GUIDES (one/youth manual) include:

- Note To Facilitator & overview of curriculum
- Learning Goals and Life Skills addresses
- The Experiential Learning Model
- Youth Development Stages
- Youth Manual Suggestions and Answers
  - The Big Picture – background information and why the topic is important
  - Facilitating the Activity – suggestions for working with youth doing the activities
  - Essential Questions – a discussion of possible answers to the experiential learning questions in the youth manuals
  - Next Generation Science Standards
  - Success Indicator – how the educator will know if youth understand essential ideas



The online manuals are available for download by youth and adults online at Purdue Extension's The Education Store, [www.edustore.purdue.edu](http://www.edustore.purdue.edu). Enter "Soil and Water Science" or "Weather and Climate Science" in the *Store Search* box. Note: Level 1 is also available in print for each curriculum.

**CONTEXT:** Youth outreach & engagement in workshop and club settings, service learning projects, mentoring and classroom enrichment.

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