The Dynamics of Climate
A Teacher Professional Development Toolkit for Climate Science

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- **Jan Sneddon**, Director of Community Partnerships, Earth Force
Introduction

The Administrative Packet contains templates for advertising the professional development workshop, communicating with participants, and registering participants for the workshop. The Materials Packet contains the originals for printing the handouts, data sets, activity materials, and assessment instruments for use in the professional development workshop. The Presenter Guide provides a detailed description of the workshop and PowerPoint program, highlighting the main points of each slide and providing an outline for each activity. It is designed to assist the presenter (facilitator) in implementing the workshop. The workshop activities engage participants in analyzing and interpreting climatic data sets and visualizations. Pedagogically the workshop promotes active learning and collaboration. The manual, *The Dynamics of Climate: A Teacher Professional Development Toolkit for Climate Science*, provides an overview of the toolkit, guidelines for conducting effective workshops, and a listing of available resources and background readings.

**Administrative Materials Checklist**

- ✔ Registration form
- ✔ Sign-in sheet
- ✔ Sample workshop flyer
- ✔ Sample participant confirmation e-mail/letter
- ✔ Sample press release
Workshop

Registration Form

Name ___________________________________________ Phone _____________________

Address _________________________________________ E-mail _____________________

City _____________________________________________ State _______ Zip _______

School/Organization: ______________________________________________________

Grade Level Taught/Responsibilities: _________________________________________

Tell us about yourself, your interests, background and reason for participating in this workshop:

For more information contact: (Your information here)

Send registration form to: (Your information here)

Please submit your registration no later than (date). You will receive confirmation.
**Workshop Sign-in Sheet**

Workshop location: ____________________________  Date: ________

| Name | City | School/Organization  
|------|------|----------------------  
|      |      | And e-mail address if you wish to be added to our climate education network |
The (your institution) is hosting a free climate science and climate change workshop for teachers (others).

**Topics:**
- Climate System
- Earth’s Energy Budget and the Greenhouse Effect
- Climate Variability and Global Warming
- Climate Data
- Changes in the Climate System
- Adaptations and Mitigation
- Action and Impacts

**Benefits:**
- Receive pamphlets, brochures, and fact sheets
- Become more aware of climate and climate change
- Experience interactive hands-on activities
- Gain access to instructional materials for teaching about climate and climate change
- Content is aligned with state and national standards

**Dates:** (1 or 2 days)
- Date, Day 1 Emphasizes climate science and climate change content – 9:00 am – 4:00 pm
- Date, Day 2 Emphasizes pedagogical approaches to teaching about climate and climate change (builds from the content covered in Day 1) – 9:00 am – 4:00 pm

**Location:** (name of agency, city, state)

**Driving Directions:**

**To Apply:** Complete the application form and submit no later than (date). Contact Information: (name, e-mail address, telephone and fax)
Date

Dear Participant,

Thank you for signing up for the climate system workshop on DATE. Registration will begin at 8:30 a.m. and the workshop will be held from 9:00 a.m. to 4:00 p.m.

Please dress casual as we will be doing several hands-on activities that will require moving around. Our workshop schedule will not give us the opportunity to go out to lunch. **Please bring your lunch or a lunch will be provided.** (Optional) Attached is a map and direction to our workshop location. Parking may be found at

If you have any questions regarding the workshop or if you cannot attend, please cancel your reservation, by contacting me at (email and phone#)

I look forward to working with you!

(Your Name)

Workshop Facilitator
(Sample Press Release)

Climate System Workshop for Educators and General Public

The climate system workshop is an eight-hour workshop that provides a foundation to understanding climate.

DATE –Lafayette, Indiana (your location); (Your Organizations) will lead a climate system workshop for educators and adults that provides a foundation to understanding climate. The workshop will be held on (DATES) from 8:30-4:30 at (LOCATION). (Your name) is (background about you) ........ . The workshop will address four general questions: What is a climate system and its components? What are causes and effects of component change? What are the impacts of these changes? What can we do about it? The workshop will actively engage participants in learning through a combination of large and small group activity and discussion that is driven by climate data and visualizations. Participants will also gain access to the Indiana Climate Education network, website, and resources and receive a certificate of completion. The workshop is appropriate for formal and informal educators and adults interested in learning about global warming, climate variability, and climate change. To register for the workshop contact (your name) at (your e-mail/phone #). (optional) The workshop is being hosted by (your organization)

For more information contact (Your name and info)
Workshop Evaluation Form

Please circle the appropriate rating and provide a brief rationale for that rating. Date: ________

1. The icebreaker activity encouraged me to interact with other participants and to share my ideas.
   
   Very much so  Definitely  Somewhat  Not really  Not at all
   Please Explain:

   __________________________________________________________________________
   __________________________________________________________________________
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   __________________________________________________________________________

2. The welcome set a positive and professional tone for the workshop.
   
   Very much so  Definitely  Somewhat  Not really  Not at all
   Please Explain:

   __________________________________________________________________________
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3. The overview clearly stated the activities, purpose and outcomes of the workshop.
   
   Very much so  Definitely  Somewhat  Not really  Not at all
   Please Explain:

   __________________________________________________________________________
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   __________________________________________________________________________

4. The climate system activity helped me clarify my understanding of climate and to develop a better scientific understanding of climate.
   
   Very much so  Definitely  Somewhat  Not really  Not at all
   Please Explain:

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Assessment Continues
5. The greenhouse effect, carbon cycle, and earth’s energy budget sessions helped me better understand how these phenomena impact climate.

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6. The climate data presentation was interesting and informative.

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7. The session on changes in the climate system helped me better understand how changes in the climate system impact climate and vice-versa.

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8. The adaptation and mitigation activities (wedge game) engaged me to think about how the decisions people make impacts the earth’s climate system.

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9. The action and impacts session and scenarios was useful in engaging me to think about what I could do about climate change.

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Please Explain:
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10. Overall, I would rate the quality of the workshop:

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<th>Excellent</th>
<th>Very good</th>
<th>Good</th>
<th>Okay</th>
<th>Poor</th>
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Please Explain:
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11. Overall, the workshop improved my understanding of climate and climate change.

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<tr>
<th>Greatly</th>
<th>A lot</th>
<th>Somewhat</th>
<th>A little</th>
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Please Explain:
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12. I would participate in an advanced workshop on climate and climate change.

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<th>Yes</th>
<th>Maybe</th>
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Topic(s): ______________________________________________________
_____________________________________________________________________________________
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Thank you!
Workshop Evaluation Form

SHORT FORM

Please circle the appropriate rating and provide a brief rationale for that rating.  Date: _________

1. The icebreaker activity encouraged me to interact with other participants and to share my ideas.
   
   Very much so  Definitely  Somewhat  Not really  Not at all

2. The welcome set a positive and professional tone for the workshop.
   
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5. The greenhouse effect, carbon cycle, and earth’s energy budget sessions helped me better understand how these phenomena impact climate.
   
   Very much so  Definitely  Somewhat  Not really  Not at all

6. The climate data presentation was interesting and informative.
   
   Very much so  Definitely  Somewhat  Not really  Not at all

7. The session on changes in the climate system helped me better understand how changes in the climate system impact climate and vice-versa.
   
   Very much so  Definitely  Somewhat  Not really  Not at all

8. The adaptation and mitigation activities (wedge game) engaged me to think about how the decisions people make impacts the earth’s climate system.
   
   Very much so  Definitely  Somewhat  Not really  Not at all

Assessment Continues
9. The action and impacts session and scenarios was useful in engaging me to think about what I could do about climate change.

   Very much so    Definitely    Somewhat    Not really    Not at all

10. Overall, I would rate the quality of the workshop:

   Excellent    Very good    Good    Okay    Poor

11. Overall, the workshop improved my understanding of climate and climate change.

   Greatly    A lot    Somewhat    A little    Not at all

12. I would participate in an advanced workshop on climate and climate change.

   Yes    Maybe    No

   Topic(s): _______________________________________________________________________
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Additional comments?
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Thank you!
PHOTO CONSENT FORM

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Address: __________________________________________________________________

City: ________________________ State: _____________ Zip: __________________

Phone: _________________________ Email: __________________________________

Signature: ________________________ Date: ______________