



**6 DEGREES OF CONNECTION:**  
Understanding the Interconnectedness of Earth Systems

THE  
NURTURE  
NATURE  
CENTER

## 6 Degrees of Connection Program - Introduction for Educators

*We have summarized the various elements of the 6 Degrees program below. We hope you will be able to use and adapt the following materials to teach about interconnections and earth systems in a way that makes the most sense for you and your students.*

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**Program Purpose:** The 6 Degrees of Connection program combines NOAA's SOS technology, NASA datasets, a focus on personal relevance, and a hands-on creative activity in an effort to improve earth systems literacy and inspire critical thinking and action on environmental issues. The program focuses on earth science concepts and the cross-cutting theme of interconnectedness, relying on a personal relevance hook to capture interest and motivation to further pursue STEM experiences and careers.

**Key Lesson:** After participating in the 6 Degrees of Connection program, students should understand and be able to articulate that everything is connected! While it might not be obvious how energy released from the sun impacts the function of our cell phones or how a car driving by impacts the number of people experiencing asthma attacks, we are linked with earth systems, which are linked with one another. An event within one system causes something else to happen within another system and then another, and explaining these chains of connections reveals the dynamic nature of the human-earth relationship.

### Program Contents:

#### Central Elements

1. Sphere Program (3 documents and one zipped folder)
  - a. Docent Script for SOS presentation (1 document)  
*Full script for 1 hour presentation including Sun/Space connections, Acid Rain activity, and Climate Change and Ocean Plastics connections.*
  - b. Card Templates for Acid Rain Interactive Activity (2 documents)  
*The interactive activity is integrated into the presentation and described in the script. There are two sets of cards, and groups of students will be asked to arrange one or the other sequentially.*

- c. 6\_degrees zipped folder  
*This zipped folder includes the extra media needed to run the 6 Degrees of Connection SOS program. Unzip the folder and place it in the site custom folder on your SOS system and put the 6degrees.sos playlist file in the sosrc directory in order to run.*
- 2. Creative Activity (4 documents)  
*The creative activity is designed to take about 1 hour. Students will create their own chain of connection using 6 circles of various sizes connected via a shoelace and illustrate the various steps along the chain through drawing, collage, or clipart.*
  - a. Instructor Information Sheet
  - b. Brainstorming Sheet
  - c. Clip Art Sheets
  - d. Circle Templates

### **Supplemental Elements**

- 3. Pre and Post Visit Classroom Materials for Teachers folder (12 documents)  
*Optional activities that students can complete both before and after seeing the 6 Degrees program.*
  - a. Pre-Program Activity (Introduction to terms, responses to video connecting whale populations to our climate)
    - i. Instructor Information Sheet and Answer Key
    - ii. Student Worksheet
  - b. Post-Program Activities (filling in a chain of connections - 4 topic options: climate change and tick populations, cotton production for clothing, ozone hole and Montreal Protocol, and plastic trash disposal)
    - i. Instructor Information Sheet
    - ii. Student Instruction Sheet
    - iii. Worksheet and Answer Bank (for each topic)
    - iv. Answer Key (for each topic)
- 4. Connections to Environmental Policy (1 document)  
*Several of the topics in the 6 Degrees program have strong connections to government environmental policies - both national and international. We summarize some of these connections so educators can include this information if desired.*
- 5. Relation to Next Generation Science Standards (1 document)  
*NGSS Performance Expectations, Science and Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts that we feel the 6 Degrees program addresses.*
- 6. Supplemental Information (4 documents)  
*Resources for educators to find background information on the topics addressed in the program.*
  - a. Sun/Space
  - b. Acid Rain
  - c. Climate Change
  - d. Waste

### **Related SOS Programming:**

- **Connecting to STEM**

Connecting to STEM is a 25 minute autorun Sphere movie that introduces viewers to 10 different professionals in STEM-related careers and explores what motivated them to pursue their course of work. Each STEM professional narrates a 2 minute highlight clip explaining their journey to a successful career and advice for students trying to find their own paths.

1. STEM Highlights introduction (1 document)
2. STEMHighlights (zipped folder)  
Unzip and put in the site custom folder on your SOS system
3. STEMhighlights autorun SOS playlist  
Put in the sosrc directory of your SOS system to run clips
4. 6 Degrees of Connection Desktop version (mp4)

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