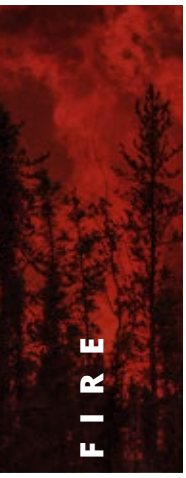
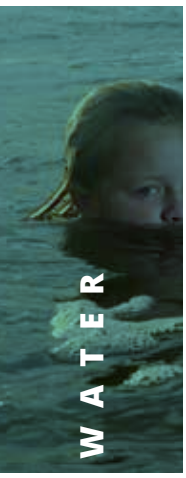
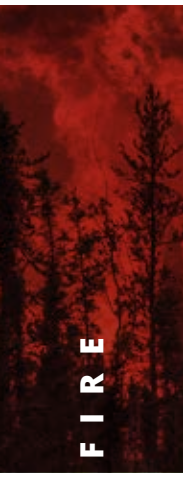


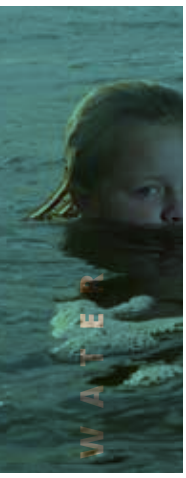


THE HUMAN ELEMENT

"We depend on the stability of the fundamental forces of the world. Imbalance in one element leads to an imbalance in another."

—James Balog, *The Human Element*





This culminating lesson is for educators who have taught each of the four separate film chapters of ***The Human Element*** and wish to synthesize the material in a final overview for their students.

LESSON OBJECTIVES

At the end of this lesson, students will be able to:

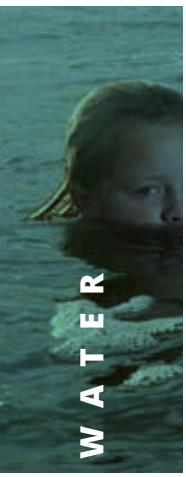
- Articulate the concept of the Anthropocene era, i.e. the historic age of human activity causing changes in the environment.
- Explain how human actions have caused changes to each of the four "classical" elements, and point to how human actions may work to lessen and ameliorate those changes.
- Create an artistic expression that either describes how human behavior contributes to climate change, the effects of those changes, or the ways humans could help slow or reverse the changes.

MATERIALS

- You can find the Element Chapters below: The password is: **THEedu**.
  - Earth: **https://vimeo.com/329007369**
  - Air: **https://vimeo.com/328528959**
  - Fire: **https://vimeo.com/328528089**
  - Water: **https://vimeo.com/328529341**
  - Full Film: **https://vimeo.com/328529547**
- Access to each of the film chapters and their accompanying lesson plans (which include culminating exercises at the end that can be added to this overview)
- Printed copies of **Peer Review Feedback Form**

DURATION

One 50-minute class period



OPENING EXERCISE

Read the following quote aloud:

> *"Human influence on the planet is so large that, in fact, we've created a new geologic period: the Anthropocene."*
>
> **—Dr. Stephen Pyne, Professor Emeritus, School of Life Sciences, Arizona State University, in an interview for *The Human Element***

Ask each student to write down their understanding of the "Anthropocene" as a concept. Split students into pairs to assess and combine their individual definitions. Then match pairs to have foursomes do the same and so on until the class arrives at a single definition of "Anthropocene."

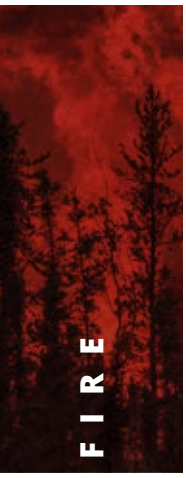
Discussion questions:

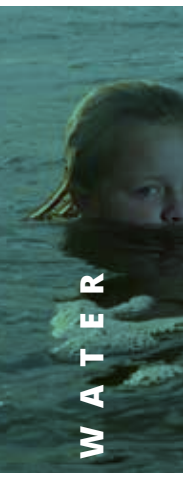
1. From the preceding four lessons on each of the elements, what are the major concepts we have learned about the ways human beings are changing our climate, and how are those changes affecting us in turn?

2. What parts of that new understanding do you feel are important for everyone to know, and why?

3. Is there any part of the film or the work we've done in class that has really touched or moved you? What was that, and why?

4. What have you learned about how these changes affect our own community?





VISUAL EVIDENCE

Have students review the visual evidence and the final projects from each of the four film chapters.

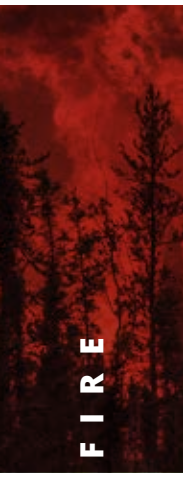
Consider a feedback process where students review each other's work with the **Peer Review Feedback Form** to identify main themes, what they learned, and further questions they have.

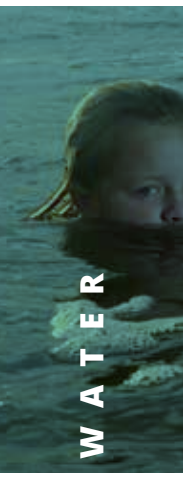
Discuss as a class how each of the elements relate to one another.

Together, brainstorm how the evidence you've collected can be used to teach others in your school or community about the human causes and effects of environmental change. You may also want to refer to the resources in the final section, Solutions Moving Forward, to further inspire your final collaborative class project.

Some ideas:

1. An exhibit in the main hall of the school
2. A school-wide presentation
3. A presentation to a City or Town Council, or a Public Utilities Committee
4. A portfolio presentation or letter to a decision-making body in your community detailing your class vision for the future





SOLUTIONS MOVING FORWARD

The Human Element reveals that stories are an essential way to understand humanity's role in our changing planet. While there are many resources outside the scope of these lesson plans that educators can use to communicate climate action plans, below are a few tips you can discuss with or distribute to your students to get started.

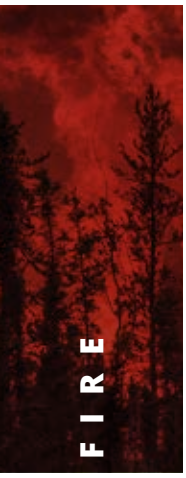
**Note: This list is also included in the Full Film Lesson.*

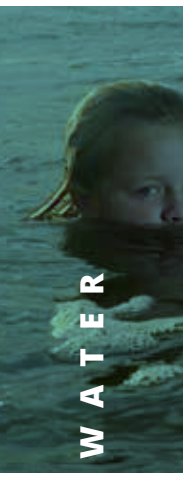
1 **Seek the truth about climate change.**

- There are many forces in the world obscuring what's happening with our changing climate, but the scientific facts are clear: Earth is changing, and humans are contributing to these changes.
- Use ***The Human Element*** film and the **Climate Protection** section of the website as a starting—but not ending—place for your own independent research on the myriad factors influencing climate change. Think critically about your sources, and never stop gathering data.

2 **Use your voice to spread awareness of the evidence.**

- Prepare for educated conversations about climate change with friends, family members, classmates, teachers, and skeptics. You can find a great resource on how to talk to people about climate change from **The Nature Conservancy** as well as in the below resources also listed in the Educator Introduction:
  - **This short video** from "Our Climate Our Future" challenges viewers to learn something from every conversation by focusing on listening. The main message is that an argument based on facts and figures rarely changes minds, whereas a conversation based on mutual respect and listening might facilitate learning.
  - For data and statistics that directly address the most common myths about climate change, explore this article from **Conservation International**.
- Use the resources from Earth Vision Institute's **Getting the Picture** curriculum "Climate & You" chapter. In the Speaking Up for Our Earth section (6.1), there are samples of videos and projects made by young people around the country. For example, in videos produced by Lynne Cherry for her book ***Young Voices for the Planet***, young people share stories about actions they are taking in their homes, communities, schools, and across the globe to fight climate change. Here are two examples:
  - Alex Loorz, of Ventura, CA, was inspired at age 12 by Al Gore's film *An Inconvenient Truth*. He created a similar presentation specific to the effects of climate change in his hometown and sparked community-wide efforts to combat it, such as a student commitment to be free from fossil fuels, and permanent, 10-foot posts placed on the beach to recommend actions people can take to prevent further sea level rise.





- Olivia Bouler was 11 when the 2010 BP oil spill happened near her home in coastal Louisiana. A bird lover and artist, she wrote to the Audubon Society to offer her art to elicit donations to rescue the nesting brown pelicans affected by the spill. Her artwork raised $200,000 and was seen by millions of people around the world. She traveled to Washington, DC to lobby her state representatives and even the U.S. Secretary of the Interior on behalf of renewable energies.

▸ Research other examples of global youth involvement in climate change action below:

- **UN Climate Change** features youth-focused global video contests, conferences and actions.
- Review this *New York Times* **photo gallery** from the March 15, 2019 Global Youth Climate Strike to see how young people around the world used their voices to demand policy change. Sign your class up for the **NY Times Climate Forward** newsletter for climate news updates.

▸ Work on behalf of political candidates proposing climate solutions. Even if you can't vote, you can volunteer on political campaigns, share the art, photos and other visual evidence you created for these lessons with local leaders and politicians, and tell others why you support their positions.

▸ Get involved with grassroots advocacy organizations such as **Citizens' Climate Lobby**, a nonpartisan non-profit focused on national policies to address climate change.

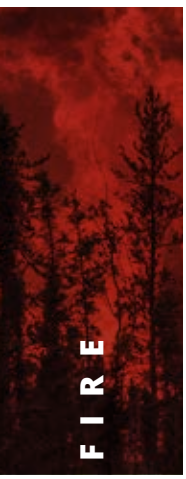
3 **Change your choices.**

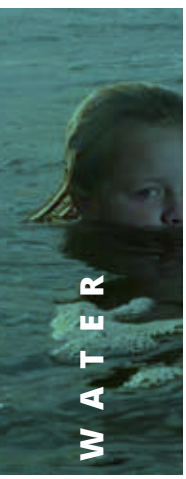
▸ Research your own carbon footprint, which is the amount of carbon dioxide your personal energy use releases into the atmosphere. Visit **Getting the Picture** for resources on the environmental effects of air travel, single-use plastics, and other major sources of carbon dioxide pollution. Measure your own carbon footprint at home with your family using one of these carbon calculators:

- **From the EPA**
- **From The Nature Conservancy**

▸ Learn how your daily choices can reduce your carbon footprint.

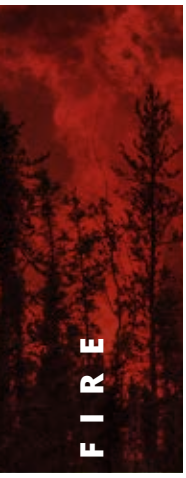
- Ask your parents where your home's electricity comes from. Inform them that, in many places, you can easily change your home's power source from fossil fuels to renewables like wind or solar while remaining on your city's standard power grid. You can research this as a family here: U.S. Department of Energy—**Energy Efficiency in Your Home**.
- At school, conduct a school energy audit. Here is a **comprehensive guide** to review.
- Choose one or more of the "25 Tips to Reduce Your Carbon Footprint" featured in **Carbon Offsets to Alleviate Poverty** to implement as a class and track your progress.
- Support local companies that have sustainable energy practices like solar panels, recycling and composting bins.

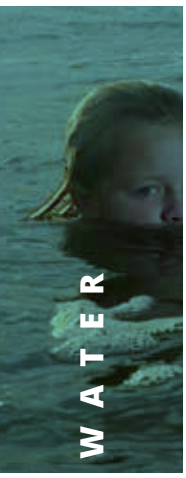




4 **Create a new story for your world.**

- Dream big about how to change people's reliance on fossil fuels and other factors contributing to climate change. From innovative businesses to zero waste lifestyles, remember: you can be the change you wish to see in the world.
- Embrace and practice **climate optimism** and remain steadfast in individual and community efforts that are changing practices and policies. Watch Professor Katharine Hayhoe's **TED Talk**.





PEER REVIEW FEEDBACK FORM

Name of Peer:

Projects Presented:

Main themes that emerged from your collection:
What I learned:
What I appreciated:
Further questions raised by the work: