



EARTH

LESSON PLANS

GUARDIANS

THE PROJECT IS
WE THE FUTURE
THE IMPACT IS
HERE & NOW



LESSON PLANS

Earth Guardians

The project is *We the Future*. The impact is here & now.

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OBJECTIVES Celebrate the student, Captivate the mind, Cultivate the experience

- 1 Offer our youth a sense of hope, giving them a space to belong to something meaningful, while making a difference in today's world
- 2 Guide students to tap in to how they feel about the state of the planet
- 3 Explore how climate change is a social and environmental justice issue, and why it is important to respect our planet and, therefore, each other
- 4 Watch our video to EXPERIENCE how real-life youth are out in the world taking action
- 5 Transform the energy of FEELING into ACTION via interests or passions
- 6 Start taking action!

We have intentionally designed these Lesson Plans to send the message to our youth, “Your voices and ideas matter.” Earth Guardians wants students to know we support them, they are not alone, and they have the power to make a difference in the world.

ABOUT EARTH GUARDIANS LESSON PLANS

First of all, thank you for all of your hard work as an educator supporting our youth. We, at Earth Guardians, are honored to be a part of your classroom and hope these plans are as inspiring for you as they are for your students.

Our Lesson Plans, complemented by artist Shepard Fairey’s painting of Earth Guardians Youth Director Xiuhtezcatl Martinez, were created through a partnership with Amplifier. Amplifier is a design lab dedicated to amplifying the voices of social change movements through art and community engagement, bringing *We the Future* into classrooms across the United States.

The project is *We the Future*. The impact is here & now.

These are not your conventional Lesson Plans, Earth Guardians is anything but conventional. These are calls to action.

Earth Guardians is inviting you to **Celebrate** the spirit and perspectives of our youth, to **Captivate** their minds and hearts with hope and opportunity, and to guide them as they **Cultivate** their genius through a lens of environmental justice.

Celebrate (v.) - *to acknowledge with a social gathering or enjoyable activity*

Captivate (v.) - *to attract and hold the interest and attention of*

Cultivate (v.) - *to apply oneself to improving or developing*

ABOUT EARTH GUARDIANS LESSON PLANS

Additionally, we know and value the power of peer to peer engagement. So, our Lesson Plans include a short video where we have captured the stories of eight young solutionaries, every-day-turned-purpose-driven-youth, to show your introverted and extroverted students that their voices matter, and how even the simplest actions can make a HUGE difference. The inspiring video is accompanied by brief climate change information, a process of self-inquiry + group discussion for teachers and students, and culminates in a project where students start taking action in their own chosen, unique ways.

Earth Guardians' mission is to amplify the voice and leadership of youth. As such, with proper permissions, students will have the option to directly send their projects, with first name / age / school, to Earth Guardians. We will then highlight their work either online, in a local gallery exhibit, or by being sent to environmental migrants, or climate refugees.

And, moving beyond our two Lesson Plans, students and teachers are invited to stay connected to the global Earth Guardians community through our App! [Earth Guardians App](#)

THE VIDEO: LIVE ACTION & ANIMATION **Half music video, half inspirational piece**

For the video, we have kept the messaging simple, showcasing individual passions from both introverted and extroverted youth. This video is taking our middle and high school audience on a journey of discovery, activating aspiration, and realizing the attainable ways they, too, can make a difference. Highlighting the stories of young solutionaries ignites the curiosity and creativity of young people and invites them to ask themselves, "Can I do something like this? What do I love to do that can make a difference?"



LESSON PLANS I & II AT A GLANCE

CELEBRATE, CAPTIVATE, & CULTIVATE OUR YOUTH

Lesson Plan I: 45-50 min

Part I: 5-7 min

- Free Write: Students given 3 questions to answer in a journal, hand written or digitally

Part II: 2-3 min

- Introduce Earth Guardians & Xiuhtezcatl Martinez

Part III: 5-7 min

- What is Climate Change
- Climate Change facts
- Climate as a social justice issue

Part IV: 5-7 min

- Introduce 'Writing Prompt Question' for students to think about. Answer to be written down after viewing the video
- WATCH Video! You will need a medium to show the short video to the class

Part V: 22 min

- Personal reflection
- Small groups breakout
- Classroom conversation

Part VI: 5 min

- Give students the questions from the (attached) Student Worksheet. Have students reflect on/write answers before next class

Part VII: 1 min

- Introduce Earth Guardians App

*** Save a 2ft. x 2ft. space on the wall for Lesson Plan II**

LESSON PLANS I & II AT A GLANCE

CELEBRATE, CAPTIVATE, & CULTIVATE OUR YOUTH

Lesson Plan II: 45-50 min

Part I: 10 min

- Recap: How to transform curiosity and passion into meaningful action - at any level
- Create classroom Action Tree

Part II: 30-35 min

- Time to get hands on! Design work of art, or document, describing how students feel about the state of the planet and / or how they are going to start taking action

Part III: 3-5 min

- How to stay engaged?



LESSON PLAN I 45-50 min

CELEBRATE

Part I: 5-7 min (Bellwork)

Write the following questions on the board, or deliver digitally, and have students write their answers:

- 1 Is it important to respect our planet? And why?
- 2 How do you feel about the state of the planet?
- 3 What is climate change, and is it a social justice issue?

CELEBRATE + CAPTIVATE

Part II: 2-3 min

Introduce Earth Guardians

Question:

Who is Earth Guardians? Who is the face of this month's poster, Xiuhtezcatl Martinez?

Answer:

Earth Guardians is an organization dedicated to amplifying the voice and leadership of youth in the environmental justice movement. Earth Guardians supports young people by empowering them with leadership opportunities and tools to bring their innovative solutions to the world's most pressing issues.

The organization started in 1992 as an accredited high school on Maui, HI, where the school curriculum was built on applying lessons to local environmental issues. Whether working to get junk mail out of the post office, or banning the burning of sugar cane, students applied their learning to protect and support the island, and the community, they loved.

Now 26 years later, the organization has grown into 44 countries with Earth Guardian Crews, or groups of passionate young people, voluntarily taking action in their communities. Our current Youth Director, Xiuhtezcatl Martinez, is a renowned indigenous hip-hop artist, public speaker, and voice for the youth-led environmental movement. Having spread a call to act on climate change in front of thousands of people, including his address to the United Nations General Assembly, he is using his music as a medium to connect with his generation and encourage them to take action on environmental justice issues.

Please visit www.earthguardians.org and www.xiuhtezcatl.com to learn more.

LESSON PLAN I

CELEBRATE + CAPTIVATE

Part III: 5-7 min

The following climate change facts are optional and to be shared at your discretion, based upon what is appropriate for your class. The focus of this lesson plan is to invite students to discuss how they feel about climate change and to inspire them to take action with stories from their peers. For additional climate education resources, please visit our partner's at the [Alliance for Climate Education](#).

The Climate is Changing:

The Earth has had many tropical climates and ice ages over the billions of years that it's been in existence. Why is now so different? For the last 150 years human activity has meant we're releasing a huge amount of harmful gases into the Earth's atmosphere, and records show that the global temperatures are rising more rapidly. (Source: [NatGeoKids](#))

Climate Change Facts:

1 What is contributing to climate change:

- Greenhouse gases, including carbon dioxide, methane, and water vapor, trap heat in the Earth's atmosphere and warm the planet. (Source: [EPA](#))
- The greenhouse effect is an increase in the average temperature of the Earth. Without greenhouse gases, the temperature on Earth would be too cold to support life. With too many greenhouse gases, it would heat up beyond survivable levels. (Source: [NOAA Research](#))
- The pre-industrial concentration of carbon dioxide in the atmosphere was 280 parts per million (ppm). As of April 2018, the concentration is 407 ppm. (Source: [NASA Global Climate Change](#))

2 Natural Disasters: Since 1970, the number of disasters worldwide has more than quadrupled to around 400 a year. (Source: [The Economist](#))

3 Oceans: Average sea level is expected to rise 1 to 6 feet before the end of this century. (Source: [NASA](#))

4 Animals: The current pace of global average temperature rise puts approximately half of all plants and animals at risk of extinction. (Source: [WWF](#))

5 Rainforests: Rainforest destruction contributes to climate change. That's because trees store carbon dioxide as they grow. Clearing and burning forests releases large amounts of carbon dioxide into the atmosphere. (Source: [National Geographic](#), [University of Colorado Boulder](#))

LESSON PLAN I

Part III: 5-7 min *cont.*

Climate as a Social Justice Issue:

- According to the UN’s disaster-monitoring system, America, China and India have suffered the greatest number of natural disasters globally between 1995 and 2015. These include earthquakes, storms, floods and heatwaves that either cause at least ten deaths, affect more than 100 people, or prompt the declaration of a national emergency. (Source: [The Economist](#))
- The United States is the second largest contributor to CO2 in our atmosphere, though it is home to just 4.4 percent of the world’s population. If everyone in the world lived the way people do in the U.S., it would take four Earths to provide enough resources for everyone. (Source: [World Atlas](#), [U.S. Census Bureau](#), [Popular Science](#))
- While defining a climate refugee, or environmental migrants, is complicated due to multiple varying factors, according to the United Nations International Organization for Migration (IOM), we could see as many as 200 million environmental migrants by 2050, moving either within their countries or across borders, on a permanent or temporary basis. Many of them would be coastal and low-income populations. (Source: [ReliefWeb](#))
- The United Nations Migration Agency defines 10 Key Takeaways on Environmental Migration. Please find them [here](#).

Case Study (Optional):

If you would like to present a climate change case study to your class, please visit the National Oceanic and Atmospheric Administration [here](#) and select a relevant study for your class.

CELEBRATE + CAPTIVATE

Part IV: 5-7 min

- 1 Have students think about the question: How do you feel about the state of the planet?
 - Offer examples: Curious? Overwhelmed? Hopeful? Inspired? Fearful? Indifferent? Or somewhere inbetween?

2 WATCH Video with the class!

LESSON PLAN I

CELEBRATE + CAPTIVATE

Part V: 22 min

Guided Conversation:

Immediately following the video, guide students through a conversation intentionally inviting them to share how they feel about the state of the planet and about climate change.

Talking about the state of the planet and climate change can be a very sensitive topic, and it is imperative students feel safe to reflect and to share. Research shows, “De-emphasizing the problem [climate change] was negatively associated with pro-environmental behavior, whereas problem-focused and meaning-focused coping were positively associated with pro-environmental behavior,” Dr. Maria Ojala. In other words, openly speaking about the range of emotions young people feel about climate change, and offering opportunities to create solutions, correlates to a healthier and hopeful response to the issue.

In the Self Inquiry Part I exercise, instruct students to reflect on their thoughts and feelings about climate change. As students move into Conversation Break Outs, explicitly instruct students to share their response one at a time, listening to one another without interrupting. Make it clear, this IS NOT A DEBATE. This is a safe space to reflect, share, and listen to one another. Role modeling is extremely powerful. We encourage you model the conversation by sharing your feelings about climate change and how you are taking action as a solutionary.

For additional support preparing yourself, the teacher, to guide this portion of the Lesson Plan, watch this brief **(4min) video** shared by, Earth Guardians partner, Alliance for Climate Education (ACE).

Self Inquiry Part I: Student Reflection

Have students write answers to the following questions:

- How do you feel about the state of the planet? Hopeful? Overwhelmed? Inspired? Somewhere in between? And why?
- What does it mean to be a youth leader?

Conversation Break Outs:

- Break into groups of 3-4 students and direct them to share their answers. Remind students this is a space to share and to listen, not debate or argue.
- Come together and discuss students feelings and reflections as a class.

LESSON PLAN I

CELEBRATE + CAPTIVATE + CULTIVATE

Part VI: 5 min

Transition back to Self Inquiry: Transforming Feelings into Action

“You are not just a drop in the ocean. You are the mighty ocean in a drop.” Rumi

Self-Inquiry Part II: Identifying Areas of Climate Related Interest, Curiosity, or Passion

Objective: by the beginning of Lesson Plan II, students will have identified 1-3 possible areas of interest to familiarize themselves with before next class.

The following list of questions on the Student Worksheet is intended to guide students to explore and identify their curiosities and/or passions about the environment, as well as their preferred creative mediums, ie science, art, technology, fashion, sports etc etc

Worksheet:

At the end of Lesson Plan I, print, or digitally distribute, the Student Worksheet (attached to this lesson plan) with the following questions for students to answer before the next class / Lesson Plan II:

- What do I enjoy doing?
- How can I be apart of the solution?
- How can I be a part of the solution by doing what I enjoy doing?
Aka, what are the ways I can use my passion to create change?

**** Prompt students to bring any pictures, graphics, quotes, or articles that represent how they can be a part of a climate change solution, by doing what they enjoy, to your next class / Lesson Plan II.**

CELEBRATE + CAPTIVATE + CULTIVATE

Part VII: 1 min

The Earth Guardians App: Where leaders, creators, thinkers, feelers, and solutionaries come together.

How do we keep students engaged? Meeting them where they are, of course. Earth Guardians is offering our mobile action & tracking app, alongside the *We the Future* project, to mobilize and optimize students' actions as they take their projects out of the classroom and into the world. The app facilitates calls to action and clear pathways to engagement, while tracking those actions and offering users real-time metrics about their reduced environmental impact!

LESSON PLAN II 45-50 min

Preparation for Lesson Plan II:

Identify a wallspace in the classroom where you can build a tree out of sticky notes or scraps of paper. One piece of paper per student.

Materials needed: 5x7 OR 8x11 pieces of construction paper, tape, scissors, glue, magazines, markers. If able, provide additional art supplies such as paint, colored pencils, oil pastels etc etc. This exercise can be done digitally if you work in a creative, online software.

CELEBRATE + CAPTIVATE + CULTIVATE

Part I: 10 min

Recap Lesson Plan I

- 1 Invite students to share answers from the Student Worksheet
 - For students struggling to identify curiosity or passion, please offer those students access to the “How to” Guides (see Additional Resources) from fellow youth, for additional inspiration and guidance.

Create Action Tree using sticky notes or scrap paper

- 1 Ask students to take their piece of paper and write down how they are going to take action by either describing how they feel about climate change and / or doing something they enjoy.
 - Again, invite students to share what they have chosen to do.
 - Build Action Tree out of the student papers by taping them up in the shape of a tree. Keep the Action Tree up throughout the month as a reminder of their commitment to taking purpose-driven action through mediums they enjoy.

LESSON PLAN II

CELEBRATE + CAPTIVATE + CULTIVATE

Part II: 30-35 min

Claiming Action through expression:

- 1 Tell students, now is the time to share your voice. Your voice matters. Your expression is a part of the movement.
- 2 Directions for creative expression:
 - Instruct students that the expressions they are about to create can be abstract or direct, more visual or literary, complex or simple. What matters is they are clear and intentional in expressing how they feel about climate change and / or how they are going to take action.
 - Let students know they are invited to voluntarily send their work, directly or via photo, to Earth Guardians. Their art could be shared on the Earth Guardians global platform, in a gallery exhibit, or sent to environmental migrants, or climate refugees. (See Now What? for additional information)
 - Distribute supplies to students and instruct them to take out any pictures, graphics, quotes, or articles they brought with them.
- 3 During the last 5-7 minutes of this time period, invite students to share with one another what they created!
 - If possible, display creations in classroom and invite students to send them to Earth Guardians via mail or by emailing a picture to reachout@earthguardians.org. Please fill subject line with *We The Future*.

CELEBRATE + CAPTIVATE + CULTIVATE

Part III: 3 min

Question:

How can teachers and students remain accountable as a climate solutionaries?

Answer:

Remind eachother you can:

- Inspire others by embodying healthy and hopeful climate positive actions
- Download the App & follow Earth Guardians (see Contact page)
- Explore launching a Crew in the classroom, or with family & friends
- Conduct the Earth Guardians School Environmental Audit in your classroom
- Follow a 'How to' Guide

NOW WHAT?

1 If students would like to submit their creations, please either:

- Take and email a picture to reachout@earthguardians.org, subject line *We The Future*
- OR
- Mail directly to:
Earth Guardians
3980 Broadway St., #203
Boulder, CO 80304

Include first name, age, grade, school, and any caption explaining the project.

2 Explore the Additional Resources section for guidance and inspiration from everyday youth who stay engaged and are taking action in the world!

3 Are your students interested in launching a friend, family, community, or classroom Crew?

- See the 'How to start a Crew' packet, under Additional Resources, to learn how.

ADDITIONAL RESOURCES:

- 'How to support an Earth Guardian Crew in your classroom and school: The Who, What, Where, When, Why, How and More": By art teacher Shana Pearlmutter
- 'How to organize community events: For youth, By youth.' By Marlow, 16 year old Earth Guardian
- 'How to get your hands dirty: digging into the world of permaculture.' By Sierra, 15 year old Earth Guardian
- 'How to take action in the vending machine: replace plastic water bottles with a more eco-friendly option.' By Jackson, 18 year old Earth Guardian
- 'How to become a Sustainable Fashion Designer.' By Maiya, 16 year old Earth Guardian
- 'How to start a Crew' Packet
- School Environmental Audit
- Welcome to Earth Guardians Packet
- 'How to bring plant based options into school lunchrooms: K-12 School Lunch Program step-by-step guide' By One Meal A Day
- 'How to build healthy soil for carbon cycle balance: The Soil Story Curriculum' By Kiss the Ground

ADDITIONAL RESOURCES: Lesson Plans Web Pages

Alliance for Climate Education

<https://ourclimateourfuture.org/resources/>
<https://www.youtube.com/watch?v=MEcaGl6TB34&feature=youtu.be>

Source: NatGeoKids

<https://www.natgeokids.com/uk/discover/geography/general-geography/what-is-climate-change/>

Source: EPA

<https://www.epa.gov/ghgemissions/overview-greenhouse-gases>

Source: NOAA Research

<https://www.oar.noaa.gov/>

Source: NASA Global Climate Change

<https://climate.nasa.gov/vital-signs/carbon-dioxide/>

Source: The Economist

<https://www.economist.com/graphic-detail/2017/08/29/weather-related-disasters-are-increasing>

Source: NASA

<https://sealevel.nasa.gov/understanding-sea-level/projections/empirical-projections>

Source: WWF

https://c402277.ssl.cf1.rackcdn.com/publications/1149/files/original/WWF_-_Wildlife_in_a_Warming_World_-_2018_FINAL.pdf?1520886759%20

Source: National Geographic, University of Colorado Boulder

<https://www.nationalgeographic.com/environment/global-warming/deforestation/>

Source: The Economist

<https://www.economist.com/graphic-detail/2017/08/29/weather-related-disasters-are-increasing>

Source: World Atlas

<https://www.worldatlas.com/>

U.S. Census Bureau

<https://www.census.gov/popclock/>

Popular Science

<https://www.popsci.com/environment>

Source: ReliefWeb

<https://reliefweb.int/report/world/climate-migrants-might-reach-one-billion-2050>

United Nations Migration Agency

<https://weblog.iom.int/perspectives-environmental-migration%C2%A0%E2%80%94key-takeaways-%C2%A0global-compact-migration%C2%A0>

National Oceanic and Atmospheric Administration

<https://www.climate.gov/news-features/department/climate-case-studies>

WORKSHEET *"You are not just a drop in the ocean. You are the mighty ocean in a drop." Rumi*

CELEBRATE + CAPTIVATE + CULTIVATE

Name:

Date:

1 What do I enjoy doing?

2 How can I be apart of the solution?

3 How can I be a part of the solution by doing what I enjoy doing? Aka, what are the ways I can use my passion, or curiosity, to create change?

4 Please gather and bring any pictures, graphics, quotes, or articles that represent how you can be a part of a climate change solution, by doing what you enjoy, to our next class.

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