

EARTH GUARDIANS

LESSON PLANS

Using the power of peer to peer engagement, you and your students will be able to engage in dialogue around climate change as a social justice issue.

Your students will leave the conversation with the tools to transform their thoughts and passions into meaningful action.







LESSON PLANS



THE PROJECT IS

WE THE FUTURE

THE IMPACT IS

HERE & NOW



TABLE OF CONTENTS

- Objectives | About Earth Guardians Lesson Plans
- About cont. | The Video
- Lesson Plan I & II At a Glance
- Lesson Plan I
- Lesson Plan II
- Now What? | Additional Resources
- Additional Resources | Lesson Plans Web Pages
- 1 Worksheet
- 17 Contact

THANK YOU

for bridging 6-12 classrooms and social change movements to inspire youth around the country to lead social change in their communities! The Education Amplifier program is committed to amplifying the voices of social change movements through art and community engagement by creating meaningful ways for educators and their students to join the national conversation. We achieve this by collaborating with artists and social change movements to create and distribute teaching tools such as artwork, lesson plans, art builds, and storytelling opportunities to registered Amplifier educators for their classrooms. We hope that you will adapt and improve upon this lesson plan to meet the needs and age range of your group.

This teaching tool was developed by Earth Guardians and We the Future youth icon Xiuhtezcatl Martinez. Using the power of peer to peer engagement, you and your students will be able to engage in dialogue around how students feel about the state of the planet, how climate change is a social and environmental justice issue, and how youth, specifically, have the power to make a meaningful difference. Through this two-part guided lesson plan, your students will leave the experience with inspiration and tools to transform their thoughts, feelings, curiosity, and/or passions into action.

Earth Guardians Youth Director Xiuhtezcatl Martinez, (his first name pronounced 'Shoe-Tez-Caht') is a 18-year-old indigenous climate activist, hip-hop artist, and powerful voice on the front lines of a global youth-led environmental movement. At the early age of six, Xiuhtezcatl began speaking around the world, from the United Nations Summit in Rio de Janeiro, to addressing the General Assembly at the United Nations in New York. He has worked locally to get pesticides out of parks, coal ash contained, moratoriums on fracking in his state and is currently a plaintiff in a youth-led lawsuit against the federal government for their failure to protect the atmosphere for future generations.

<u>Earth Guardians</u> is an organization dedicated to amplifying the voice and leadership of youth in the environmental and social justice movements. 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.

LESSON PLANS EARTH GUARDIANS

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

LEAD AUTHOR:

Dana Pauzauskie | Interim Executive Director, Earth Guardians

CONTRIBUTORS:

Tamara Roske | Founder & Visionary Director, Earth Guardians

Marlow Baines | National Council Member & Regional Crew Director, Earth Guardians

Mia Eastman | Youth Ambassador, Earth Guardians

DESIGNER:

Emily Kryska | Graphic Designer, Earth Guardians

OBJECTIVES CELEBRATE THE STUDENT, CAPTIVATE THE MIND, CULTIVATE THE EXPERIENCE.

- 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.
- Explore how climate change is a social and environmental justice issue, and why it is important to respect our planet and, therefore, eachother.
- 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.
- h 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 inspring 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 partnership with Amplifier.

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, Captivate their minds and hearts with hope and opportunity, and to guide them as they Cultivate their genius through a lens of environmental justice.

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 of 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 permission, 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 with the global Earth Guardians community through our app, EarthTracks: the fitbit™ for the planet, launching Spring 2019.

THE VIDEO: LIVE ACTION

Inspiration from everyday youth

For the video, we have kept the messaging simple, showcasing individual passions from both introverted and extroverted youth. This video is taking our middle school 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 AT A GLANCE

LESSON PLAN I: 45-52 min

PART I: 5-7 min



PART II: 2-3 min



PART III: 5-7 min







PART IV: 5-7 min



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, EarthTracks: the fitbit™ for the planet, launching Spring 2019

LESSON PLAN II: 45-52 min

PART I: 10-12 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 II: 5 min



How to stay engaged?



LESSON PLAN 1 45-52 MIN

CELEBRATE

PART I: 5-7 min (Bellwork)

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

- Is it important to respect our planet? Why?
- What is climate change? Is it a social justice issue?
- Now, just sit quietly and consider how you feel about the state of the planet.

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 protecting air quality by banning the burning of sugar cane, students applied their learning to protect and support both 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.

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 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 are 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)

- 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)
- ANIMALS: The current pace of global average temperature rise puts approximately half of all plants and animals at risk of extinction. (Source: WWF)
- 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

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 10 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 US, 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 migrant, is complicated due to multiple varying factors, according to the United Nations International Organization for Migration (IOM), we could see as many as 20 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)

CASE STUDY (OPTIONAL)

If you would like to present a climate change case study to your class, please visit the Environmental Protection Agency here and select a relevant study for your class.

CELEBRATE & CAPTIVATE

PART IV: 5-7 min





Offer examples: Curious? Overwhelmed? Hopeful? Inspired? Fearful? Indifferent? Or somewhere inbetween?



WATCH Video with the class!

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 to model the conversation by sharing your feelings about climate change and how you are taking action as a solutionairy.

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.

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 IN ANY PICTURE, 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, EarthTracks: the fitbit[™] for the planet, where leaders, creators, thinkers, feelers, and solutionaries come together.

How do we keep students engaged? Meeting them where they are, of course.

Earth Guardians invites you and your students to join our global action app, EarthTracks: the fitbit™ for the planet, to mobilize and optimize students' actions as they take their projects out of the classroom and into the world.

The app facilitates personalized calls to action, and clear pathways to engagement, while tracking those actions and offering users real-time water, waste, and carbon reduction metrics. It truly is a Fitbit for the Planet!

Check back this Spring 2019 to download the app!

LESSON PLAN II 45-52 MIN

PREPARATION FOR LESSON PLAN II:

Identify a wallspace in the classroom where you can build a tree out of sticky notes and scraps of paper.

One note or piece 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. This exercize can be done digitally if you work in a creative, online software.

CELEBRATE & CAPTIVATE & CULTIVATE

PART I: 10-12 min

Recap Lesson Plan I

Invite students to share answers to the Student Worksheet



For students struggling to identify curiosity or passion, please offer those students access to the <u>"How to" Guides</u> (see Additional Resources) from fellow youth, for additional inspiration and guidance.

Create Action Tree using sticky notes or scrap paper

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

- Tell students now is the time to share your voice, your voice matters. Your expression is a part of the movement.
- 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 exressing 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 change 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.
- 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: 5 min

Question:

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

Answer:

Remind eachother you can:







Conduct the Earth Guardians School
Environmental Audit in your classroom

Download the App & follow Earth Guardians (see Contact page)



Follow a 'How to' Guide

NOW WHAT?

If students would like to submit their creations, please either



Take and email a picture to reachout@earthguardians.org subject line We The Future



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!
- 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.
- Visit the App Store to download Earth Guardians free app, EarthTracks: the fitbit™ for the planet

ADDITIONAL RESOURCES

Click on the bullet points to access the resources



'How to organize community events. For youth, By youth'. By Marlow, 16 year old Earth Guardian



- 'How to take action in the vending machine; replace plastic water botles 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 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 start a Crew' Packet
- School Environmental Audit
- To take action on ocean plastic pollution, download the free toolkit and join the Movement For <u>A Strawless Ocean</u> or apply to join the collaborative <u>Ocean Heroes Bootcamp</u> this June in Vancouver, B.C. By Lonely Whale
- '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 a healthy soil for carbon cycle balance: The Soil Story Curriculum'.

 By Kiss the Ground

ADDITIONAL LESSON PLANS WEB PAGES RESOURCES

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%94%C2%A010-key-take-

aways-%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

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 picture, graphics, quotes, or articles that represent how you can be a part of climate change solution, by doing what you enjoy, to our next class.

FEEDBACK

We would love to share the story of your conversation around environmental justice with the rest of the Education Amplifier network, as well as other educators interested in bringing art and dialogue into their classrooms.

If you'd like to share, please email us at education@amplifier.org.

Some emails we like getting most:

FEEDBACK: Such as: How did the lesson plan go? What did you learn? What were your students most interested in? How did they respond? What would you change if you were going to facilitate this lesson plan again? Did you revise the lesson plan to fit your students better, and if so how?

PHOTOS OR VIDEO OF YOUR STUDENTS IN ACTION. If you share this, please indicate if you have permissions for us to share these photos publicly with other educators, or if they are strictly for documentation purposes.

YOUR STORY! Such as: Why did you decide to facilitate this conversation in your classroom? What has your experience been so far as an Education Amplifier? How are you using the artwork in your classroom? How have your students reacted to the artwork?





'HOW TO' DOWNLOAD

EARTHTRACKS: THE FITBIT™ FOR THE PLANET

EarthTracks, by Earth Guardians, is available to download for iOS and Android this Spring 2019!



USE YOUR SMARTPHONE TO SEARCH FOR EARTHTRACKS

IOS / APPLE STORE ANDROID / GOOGLE PLAY

INSTRUCTIONS IN-APP AFTER DOWNLOAD IS COMPLETE

- To get started, simply enter your phone number on the home screen and create a password.
- Now, YOU'RE IN and ready to explore what it means to be an Earth Guardian!
- The top navigation allows you a bird's eye view of the Earth Guardians, the Global Community, and Your Impact.
- The bottom navigation allows you to take a deep dive into all the actions you can take to make the Earth a better place.





EARTH GUARDIANS

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

reachout@earthguardians.org 720-263-2292 www.earthguardians.org







