

School or District Template: Unit Plan Checklist

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Fulbright Teachers for Global Classrooms 2024

Climate Change Hits Home UNIT

2nd grade students including ML and EC students

Overview of unit

This unit is designed for 2nd grade students to use their local background knowledge and experiences from a recent hurricane that devastated the area to make connections to global issues of climate change. Students will brainstorm and create a narrative essay about their personal experience. Students will study the cause of the weather changes and realize that climate change is a plausible, scientific cause of our local natural disaster. Students will explore other effects from climate change locally and globally. After exploring what climate change is, students will understand how it can affect forced migration. Finally, students will advocate for changes to reduce or slow down climate change.

Global Competencies:

Globally competent students investigate the world

- Students will examine local climate events and understand global climate change cause and effects.

Globally competent students communicate ideas.

- Students will develop narrative skills for personal expression and work with other students in groups.

Globally competent students take action

- Create a project to advocate for local and global climate initiatives.

SDG #13 Climate action

ESL standards:

ELD Standard 1: Social and Instructional Language Multilingual Learners communicate for Social and Instructional purposes within the school setting.

ELD Standard 2: Language for Language Arts Multilingual Learners communicate information, ideas, and concepts necessary for academic success in the content area of Language Arts..

ELD Standard 4: Language for Science Multilingual Learners communicate information, ideas, and concepts necessary for academic success in the content area of Science.

ELD Standard 5: Language for Social Studies Multilingual Learners communicate information, ideas, and concepts necessary for academic success in the content area of Social Studies.

Language Art NC 2nd grade Writing Standards:

W.2.3 Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal transition words to signal event order, and provide a sense of closure.

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- a. With guidance and support from adults, organize information and ideas around a topic to plan and prepare to write.
- b. With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.

W.2.4 With guidance and support from adults, use a variety of digital tools and resources to produce and publish writing, including in collaboration with peers.

W.2.5 Participate in shared research and writing projects.

W.2.6 Recall information from experiences or gather information from provided sources to answer a question.

Earth Science NC Standard 2nd grade

ESS2.1 Understand patterns of weather and factors that affect weather.

ESS.2.1.4 Obtain, evaluate and communicate information to recognize the tools scientists use for observing, recording, and predicting weather changes from day to day and during the season.

Social Studies NC Standards 2nd grade

2.G.1 Understand how interaction between humans and the physical environment is impacted by movement and settlement.

The NC 2nd grade Social Studies standards focus on the US and how it fits in the global context. It will examine the factors that contribute to national identity.

2.B.1 Understand how values and beliefs shape culture in America.

2.B.1.1 Identify the various values and beliefs of diverse cultures that have shaped American identity.

2.E.1 Understand how the availability of resources impacts economic decisions.

2.E.1.1 Explain how scarcity affects economic decisions.

2.E.1.2 Explain how the availability of resources impacts the production of goods.

Understandings:

Students will understand that the natural disaster, a hurricane, that occurred recently was caused by climate change.

Students will understand what causes climate change and what are the effects on them personally, on their community, and the world.

Students will create a product that explains climate change to the public and what efforts can be made locally and globally to slow or reduce climate change severity.

Essential questions:

- How do I write a personal narrative about my experience with the hurricane?
- We know that a hurricane reached our area, but what caused the unusual intensity and destruction? What is climate change exactly locally and globally?
- What are UN SDGs? Who created them? What is the overall purpose of the goals? How does it highlight climate change?
- What is Goal #13 Climate Action specifically, in depth?

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- What can we do to reduce climate change in our local area, nationally, and globally.
- What is forced migration? How does climate change affect people locally, nationally, globally?

Formative assessments:

Narrative essay completion

Note catcher completion of what is climate change definition, causes, effects, and how to reduce it.

Jigsaw activity: small groups each becoming experts on one SDG and each presenting to the group; all members completing a graphic organizer on all the goals.

See, Think, Wonder activity

Summative assessments

Climate change product: make a visual display or poster of the causes and effects of climate change and ways to reduce the severity as one individual and globally.

Unit development

Summary of Key Learning Events and Instruction

Class 1 Language Arts

Building background knowledge/shared experiences:

Students will brainstorm events that happened to our area in October 2024 during Hurricane Helene.

SEL/EC/Language Learner scaffolding to include visuals: [Social Story-Now I am Safe](#) and [Spanish version](#)

Students will identify results of the storm: ie. no water, destruction of homes, effects on the roads, no electricity, lack of food, issues on attending schools. Teachers and students will write their experiences together on a collaborative document that will be referred to throughout the lessons.

Class 2 Language Arts

Essential Question: How do I write a personal narrative about my experience?

Students will use a Personal Narrative [graphic organizer](#) to present their personal information in narrative form.

Students will review writing to add [transitional](#) words to the essay.

Students will use a [checklist](#) to review that all elements are complete for narrative.

Assessment: Students will review their own work and product of fellow students with a [writing rubric](#).

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Review rubric with a partner. Brainstorm ways to improve writing. Revise. Submit for teacher review.

Revision based on teacher conferences. Share with another partner and teacher. Create final copy of narrative story.

Students present their stories with administration and/or to another class.

Class 3 Science

Essential Question: We know that a hurricane reached our area, but what caused the unusual intensity and destruction? What is this climate change?

Climate change introduction

Using a [note catcher](#), students review the resources below and will document:

- What is climate change? How is this different from Weather?
- What are Greenhouse gases?
- What are some of the causes of climate change and effects?

Review NASA's [Climate Time Machine](#) to review historical changes in :

- Carbon dioxide
- Rising sea levels
- Melting sea ice
- Ice Sheets
- Global warming
- Ocean warming
- Extreme weather changes
- How can we stop the earth from warming and fight climate change?

Resources:

[Climate Change 101 with Bill Nye and National Geographic](#)

[PBS Understanding Climate Science](#)

[NASA-What is Climate Change](#) What is the difference between climate and weather

[Climate Change \(Primary\)](#) video for younger students.

[Brain Pop-What is Climate Change](#)

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[Earth Cubs-Global Goals](#)

[Earth Cubs-Climate Change](#)

[Urgent Action to Combat Climate Change](#)

How the [Ocean absorbs heat](#) versus the air

Anticipating possible challenges such as the thought that if we have cold winters or blizzard conditions, there cannot be climate change:

[Maybe It's Cold Outside](#) from National Geographic examining extreme weather events due to climate change. World is getting warmer due to fossil fuels. How can we have global warming if we have blizzards?

Students will discuss in groups why does climate change matter to me, to my family, to this area, to the world? Using the routine-[Project Zero The Three Ys'](#):

Students will take note of ways one person can slow climate change? What can we do as a community or a nation? What about the world?

Class 4 Global and Science focus

Continue to use technology to understand the historical trends of climate change and the projected problems.

Students will record their observations using the ["See, Think, Wonder"](#) routine from Project Zero.

[Global Earth Tour of Time Lapse Warming Planet](#) Students will take a tour and examine the changes of different landscapes over the last 40 years and the changes.

[Global Earth Timelapse-Fragile Beauty](#) Including flowing ice and changing coastlines

Students will record their observations. What do you notice? What do you wonder?

[Google Earth-Sea Level Rise and the Fate of Coastal Cities](#)-Students will tour a projection of how cities around the world will change if the earth is warmed by 2 degrees and then 4 degrees.

[Global Youth Climate Activists](#) World Largest Lesson tour around the world examining youth who are advocating for change.

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Class 5 Global Focus

EQ: What are UN SDGs? Who created them? What is the overall purpose of the goals?

Revisit the brainstorm lists regarding students' experience with the hurricane.

Examine who were the people, agencies, churches, etc. that helped the community recover. Compare how the community support locally is similar to the worldwide community coming together for the UN SDGs.

Students will understand the purpose of the UN SDGs: There was a large group of individuals and agencies that had to work together. In the world, there is the United Nations that brings together individual countries to help each other solve problems too.

Introduce UN SDGs:

Activity: JigSaw-students will be arranged in groups and assigned a global goal to review, using the following resources:

[World's Largest Lesson -SDG](#)

[World's Largest Lesson-Introduction 1](#) Malala Yousafzai

[World's Largest Lesson 2](#) Emma Watson

[World's Largest Lesson 3](#) Animation

[Call to Learning](#) Children activist

Students will then present their goal to the other students as the expert. All students fill out a [graphic organizer](#) for each goal. Students will also present if their assigned goal is related to recent hurricane events or current needs in our immediate community.

Assessment: students present and also organize information shared by other groups and complete graphic organizer.

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Class 6 Science and Social Studies

Discuss how Climate Change can affect where people live and cause forced migration.

What is forced migration? How does climate change affect people locally, nationally, globally?

Examining more perspectives: study picture books and other resources about climate change around the world.

Class 7 Social Studies

2.G.1 Understand how interaction between humans and the physical environment is impacted by movement and settlement.

The NC 2nd grade Social Studies standards focus on the US and how it fits in the global context. It will examine the factors that contribute to national identity.

2.B.1 Understand how values and beliefs shape culture in America.

2.B.1.1 Identify the various values and beliefs of diverse cultures that have shaped American identity.

2.E.1 Understand how the availability of resources impacts economic decisions.

2.E.1.1 Explain how scarcity affects economic decisions.

2.E.1.2 Explain how the availability of resources impacts the production of goods.

Culturally Responsive integration:

- Which neighborhoods were most affected by the hurricane? Is there a connection between affordable housing and those areas most likely to be affected by the extreme weather?
- Examine the cultural makeup of our local community.
- What are different races or cultures represented?
- What is the diversity in NC and the country.
- What are the reasons that people move to our area, state, country, etc.
- Who are some of the members of our own community have had to move away from NC after the hurricane. They are also climate migrants.

There are over 250 million people who are migrants throughout the world.

Many have left due to forced migration, one factor being climate change affecting where they live.

Select resources/books from

<https://www.raisingglobalkidizens.com/climate-action-picture-book-list-for-united-nations-sustainable-development-goal-13/>

[Google Earth-Modern Human Migration](#) Students will learn about migration around the world today.

Students will build empathy towards migrants by examining their personal experiences and perspectives.

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Class 8 Culminating Activity/Take Action Project

Summative Assessment: Students will create a presentation for administration, or other classrooms at their school, within their community, with another school within the US or other country.

Students create a Canva info poster explaining:

- What is climate change?
- What are the effects of global warming-locally and globally?
- Why should we care? Why is it important?
- How to slow climate change personally, as a community, state, country, and in the world? (ie. saving electricity, walking or biking instead of driving, eating locally sourced foods, etc.)
- What other sources of energy can we use to not be reliant on fossil fuels? Wind, Water, Sun.
- How does it affect where people live and human migration?

Students will present their poster to administrators, community leaders, other classrooms

Technology and Resources:

Access to computers with internet accessibility.

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Lesson Title: Hurricane Helene Hits Hendersonville

Subject Language Arts

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Materials needed: Chromebooks, Clear Touch Screen

Summary: Students will brainstorm events that happened to our area in October 2024 during Hurricane Helene. Students will identify results of the storm: ie. no water, destruction of homes, effects on the roads, no electricity, lack of food, issues on attending schools. Teachers and students will write their experiences together on a collaborative document that will be referred to throughout the lessons. Students will identify causes of the hurricane, in particular in relation to climate change, locally and also globally.

Learning Goal: In second grade, students will be able to:

- Understand the elements of writing narrative passages

ELD Standard 1: Social and Instructional Language Multilingual Learners communicate for Social and Instructional purposes within the school setting.

ELD-SI.K-3.Narrate

- Share ideas about one's own and others' lived experiences and previous learning
- Connect stories with images and representations to add meaning
- Ask questions about what others have shared
- Recount and restate ideas
- Discuss how stories might end or next steps

ELD Standard 2: Language for Language Arts Multilingual Learners communicate information, ideas, and concepts necessary for academic success in the content area of Language Arts..

ELD-LA.K.Narrate.Expressive Construct language arts narratives (with prompting and support) that:

- Orient audience to story
- Describe story events

Language Art NC Writing Standards:

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W.2.3 Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal transition words to signal event order, and provide a sense of closure.

- With guidance and support from adults, organize information and ideas around a topic to plan and prepare to write.
- With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.

Essential Question: How do I write a personal narrative about my experience during Hurricane Helene?

Student Learning Objective: Students will be able to generate ideas, individually and in pairs, to create a narrative essay.

Differentiation: SEL/EC/Language Learner scaffolding to include visuals: Social Story-Now I am Safe and Spanish version. Graphic organizers and note catchers.

ML and EC students will be have essential Tier 2 and 3 vocabulary pre taught as well as sentence starters, use of visual aids.

Formative Assessment:

Students will use personal narrative graphic organizer to organize their thoughts and writing.

Students will review their own work and product of fellow students with a writing rubric.

Review with a partner. Revise. Submit for teacher review.

Essential Question: How do I write a personal narrative about my experience?

Sequence of Activities:

Read Aloud of "[Hurricane](#)" by David Wiesner

Building background knowledge/shared experiences:

Comparing the book to their own experiences, students will brainstorm events that happened to our area in October 2024 during Hurricane Helene.

Students will identify results of the storm: ie. no water, destruction of homes, effects on the roads, no electricity, lack of food, issues on attending schools. Teachers and students will write their experiences together on a collaborative document that will be referred to throughout the lessons.

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Students will use a Personal Narrative [graphic organizer](#) to present their personal information in narrative form.

Students will review writing to add [transitional](#) words to the essay.

Students will use a [checklist](#) to review that all elements are complete for narrative.

Students will identify the specific effects of the hurricane identify that these were the result of climate change.

Students will review their own work and product of fellow students with a [writing rubric](#).

Review rubric with a partner. Brainstorm ways to improve writing. Revise. Submit for teacher review.

Revision based on teacher conferences. Share with another partner and teacher. Create final copy of narrative story.

Summative/End of Lesson Assessment:

Students will review their own work and product of fellow students with a writing rubric.

Students share their stories with administration and/or to another class.

Lesson Extension Idea: The popular media plays a part in providing information, setting the agenda, and influencing opinion on issues involving science and technology. Discuss how Hurricane Helene was presented in the media. Was there misinformation? What was the source? What was their motivation? How can you identify the validity of information on the internet?