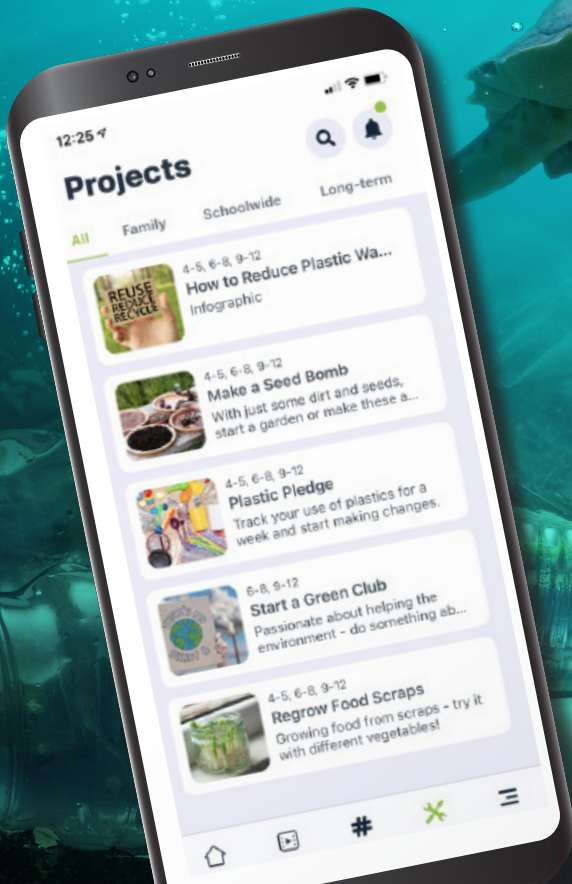


# WELCOME TO



## GETTING STARTED GUIDE



educational ideas, inc.





THERE'S NO  
PLANET B

## GETTING STARTED WITH ONE STEP

One Step is a video-based program focused on climate science, environmental issues, sustainability, and so much more. The program features innovative technology and solutions that are helping make our planet a better and safer place.

The One Step topics and content are appropriate for students in grades 4–12 and is aligned to NGSS and other state science standards such as Florida and Texas. 5E lesson plans, discussion prompts, project ideas, and much more will help you integrate One Step into your curriculum.

We're excited you're using One Step to inform, engage, and motivate your students to stomp out carbon!

**Let's Get Started.**





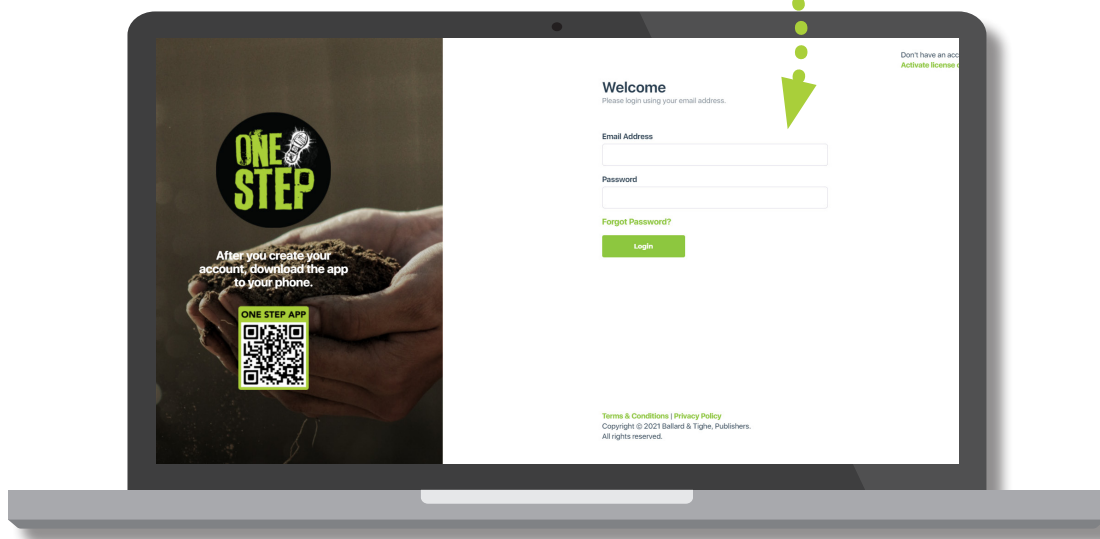
## ACTIVATION

One Step is available on an app (iOS and Android) and website. You should have received an email with a QR and license code needed to activate your account. **There are different license codes for teachers and students so be sure to use the correct one.**

If you did not receive an email with the license code, let us know at [info@onestep-connect.com](mailto:info@onestep-connect.com). Once you create an account, you can access your account on all three platforms — iOS and Android apps and the website — with the same login and password.

Create your account. Choose one of two ways:

**#1** On the website: [www.onestep-app.com](http://www.onestep-app.com).



Click on “Activate license code” in the top right corner. Then enter the license code you received in the welcome email. Next, follow the steps to enter your email and create a password. You’re now all set to go!

If you **did not receive** an email with the license code, let us know at [info@onestep-connect.com](mailto:info@onestep-connect.com).





## #2 Download the app on your phone.

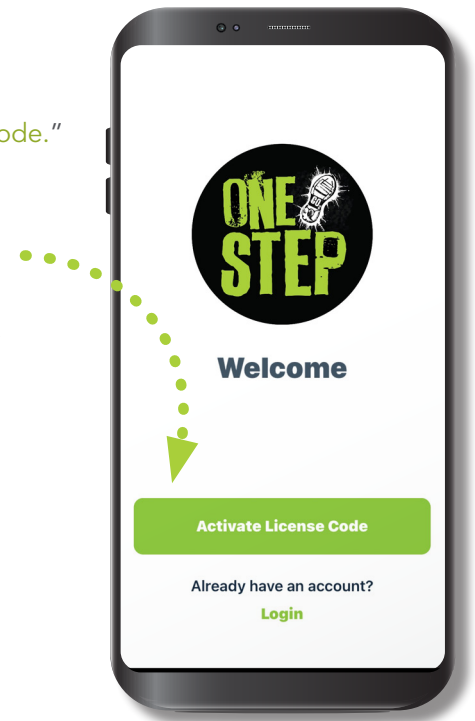
In the App Store or Google Play, search for StompOutCarbon.

Once you've downloaded the app, and click on "Activate License Code." Then enter the license code you received in the welcome email. Follow the steps to enter your email and create a password. You're now set to go!

If you **did not receive** an email with the license code, let us know at [info@onestep-connect.com](mailto:info@onestep-connect.com).

### Tech Tips:

1. Once you have activated your account, you can login to it from any device.
2. Do not access One Step using a web browser on your phone. If using your phone, be sure to download the One Step app.
3. If you forget your password, click on "Forgot password?" to get a reset code emailed to you. (Check your spam folder if needed.)
4. To share One Step videos and content from Class Talk, Lesson Plans, or slides, project the content from your computer to your classroom screen or screen share it as you would if teaching online.
5. To assign a video to watch as a homework assignment, give students the video ID (e.g., S1E1) located above the video title. Students can then search for the video using the video ID.



## A QUICK TOUR OF THE ONE STEP INTERFACE

Once you've activated your One Step account and logged in, the fun really begins! Take a look at the following pages for a preview of the app that will help you become familiar with all that One Step has to offer and how to access the videos, lesson plans, and activities.







# HOME

## Navigating:

At the bottom of the home page, you will see five icons:

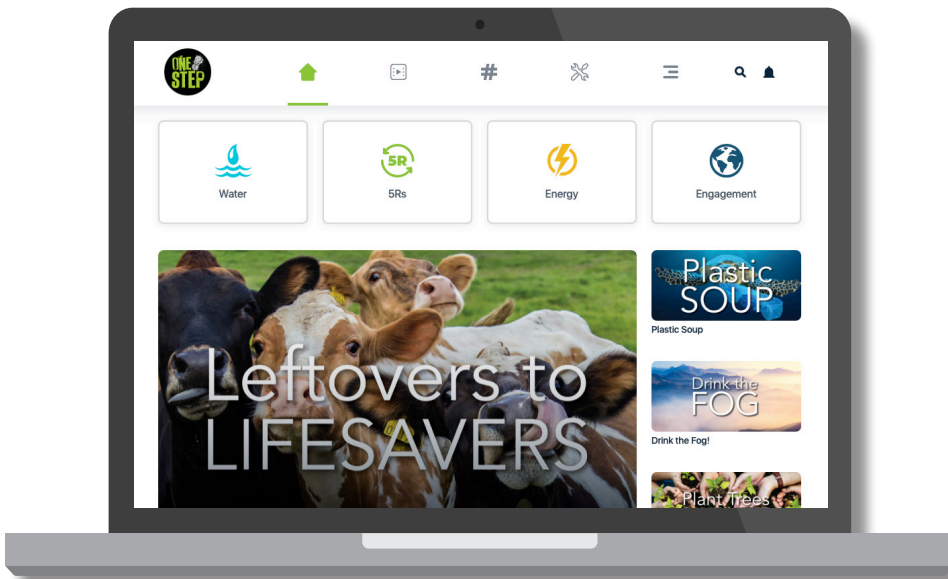
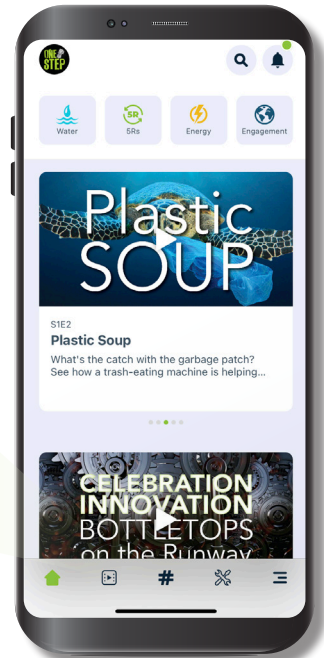
Home   Videos   #stompoutcarbon   Projects   More



You'll find these same navigation options on the website but they are tabs at the top of the page.

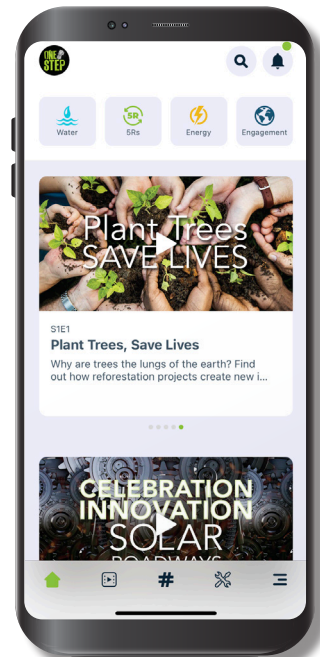
## What's Here?

On the Home screen you'll find the latest videos and other content.



On a phone, if you swipe left, older videos will be displayed.

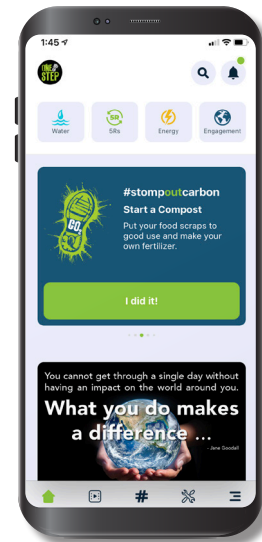
On the website, older videos are shown on the right side of the page.





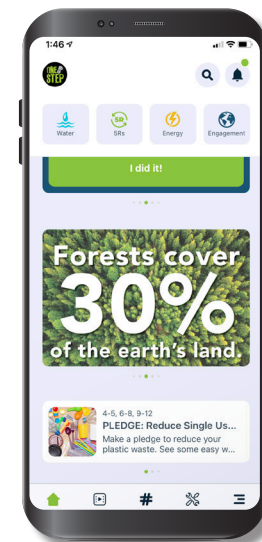
## Tips to Help Students Take Action

If you keep scrolling down, you will see the latest #stompoutcarbon tip or suggestion. Again, swiping left will show previous tips.



## Fast Facts

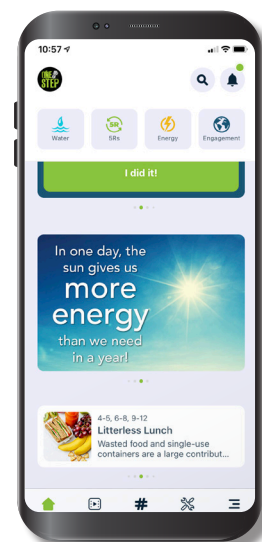
The next section of the Home screen shows climate facts and other short tidbits of information related to different topics.



## Making a Difference

Next, you'll see project ideas.

Your students see all this same content on their Home screens.





## VIDEOS

At the top of the Videos tab there are four categories you can select:

1. One Step
2. Celebration Innovation
3. Climate Talks
4. Lifestyle

Swipe left to get to the next category.

Videos range from 3–25 minutes and can be watched in segments to facilitate in-depth classroom discussions. English captions and Spanish subtitles are available.

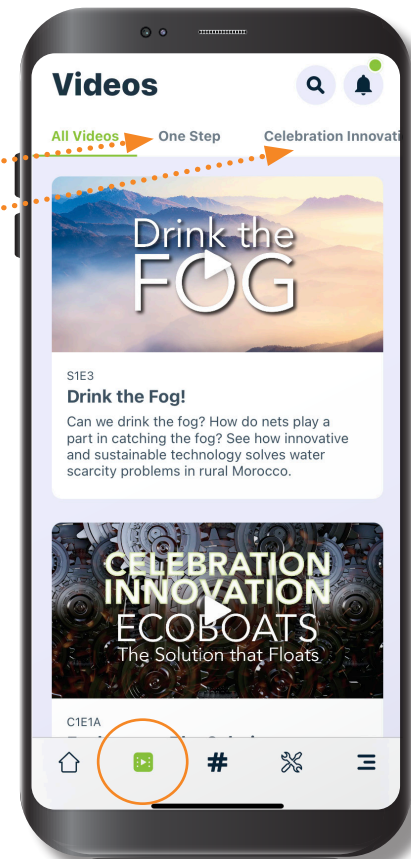
### Video Overview

**One Step Videos** are 20–25-minute teaching videos that present a problem, an innovative solution, and includes science teaching and concepts. Pages 12–14 explain how each video is supported by lesson plans and teaching ideas.

**Celebration Innovation Videos** are 10–15-minute videos that celebrate technology and individuals making an impact.

**Climate Talk Videos** are 8–10 minutes and discuss important topics related to the climate and how humans impact the Earth.

**Lifestyle Videos** encourage students to take steps toward reducing their carbon footprint in small and easy ways. These quick 3–5-minute videos aim to inspire student action.








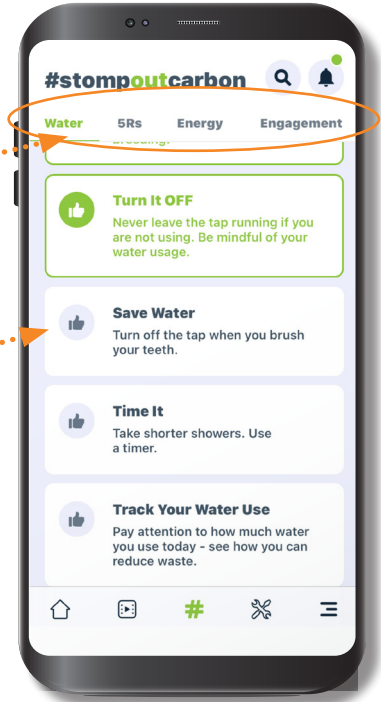
# # #STOMPOUTCARBON

The #stompoutcarbon tab gives students suggestions about how to reduce their carbon footprint and cultivate habits towards a more sustainable and less wasteful lifestyle.


There are four categories:

1. Water
2. 5Rs (Reduce, Reuse, Refuse, Recycle, Rot)
3. Energy
4. Engagement

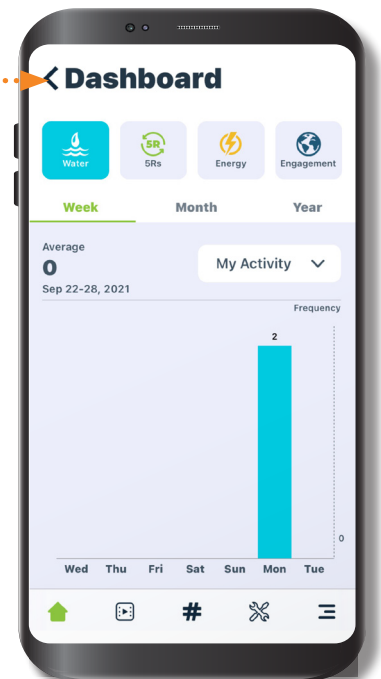
Students just have to tap  to mark that they took this action to stomp out carbon.



## Track Your Progress!

When students click on,  it signifies they have completed that action and it gets recorded on the dashboard.

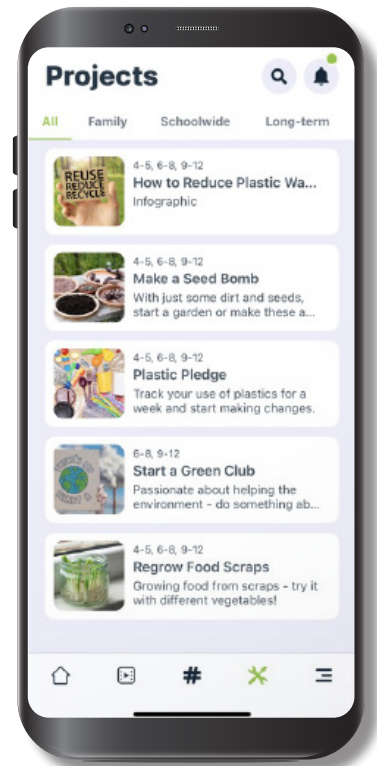
You and your students will also be able to see your schoolwide progress if the entire school is enrolled in One Step.





## PROJECTS

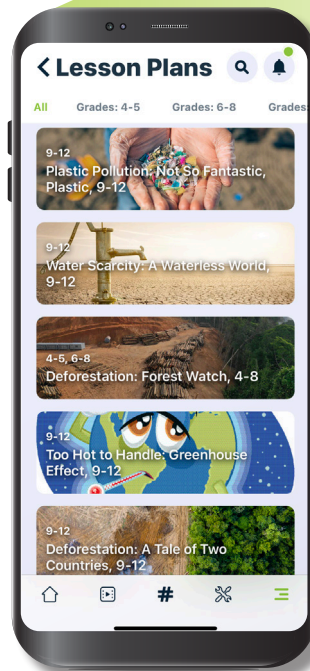
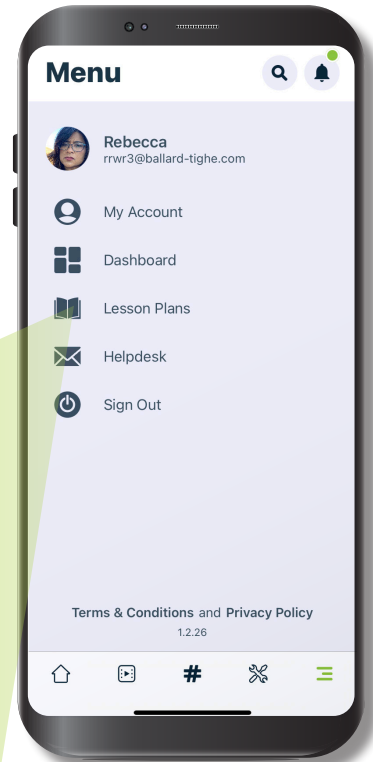
On the Projects screen, you'll find ideas for projects students can do on their own, or with friends and family. These projects are designed for students to continue their carbon-reducing actions outside of the classroom.





## ☰ MORE

On the More screen, you'll find your account details, access to the dashboard, and access to lesson plans.



## 📖 LESSON PLANS

Lesson Plans are conveniently organized by grade spans: 4–5, 6–8 and 9–12.

Only teachers have access to the Lesson Plans section.







## MORE ABOUT USING ONE STEP VIDEOS IN YOUR CLASSROOM

One Step and Celebration Innovation videos begin with a global problem, such as deforestation. It then examines human impact on the environment, causes, and effects on people, biodiversity, and the planet. But we don't stop there. It is also important for students to know that there are solutions and technology at work to solve these problems.

Video episodes feature innovative advancements in science and technology, along with people who have dedicated their lives to protecting our planet's resources and are working to address climate change, environmental problems, and sustainability.

Sample of topics covered in the videos include:

- Agricultural Practices and Food Systems
- Biogas
- Biomimicry
- Carbon Sequestration
- Climate Change
- Deforestation
- Drought and Water Scarcity
- Environmental Protection
- Fashion and Art
- Greenhouse Effect and Gases
- Health and Education
- Human Impact on the Environment
- Pollution
- Renewable Energy  
(e.g., solar, wind, hydro, biogas, nuclear)
- Sustainability
- Transportation
- Waste Management





# TEACHING SUPPORT FOR EACH VIDEO

## Class Talk with Vocabulary Support

Each video is supported with questions to help you facilitate rich academic discussions before and after the video. Note-taking questions are included for accountability and to guide comprehension.

**From Leftovers to Lifesavers!**

Video ID: 51E (24 min)

**BEFORE THE VIDEO**

1. Why do you think people throw away so much food every day?
2. Why is it important to not waste food?
3. How can you reduce food waste?
4. What is a landfill? What happens at a landfill? What are some of the problems with landfills?
5. What is composting? How does this help the environment and people?
6. What is methane? What do you know about it?

**AFTER THE VIDEO**

1. Have students share their reactions to the HomeBiogas system.
2. Would you have a HomeBiogas system in your backyard? Why or why not?
3. How does biogas change the lives of people in remote and rural areas?
4. What are the advantages and disadvantages of using biogas?
5. Why is it important to reduce methane gas emissions?
6. Why is it important to use renewable forms of energy?
7. Discuss ways to reduce food waste at school and at home.

**NOTE-TAKING**

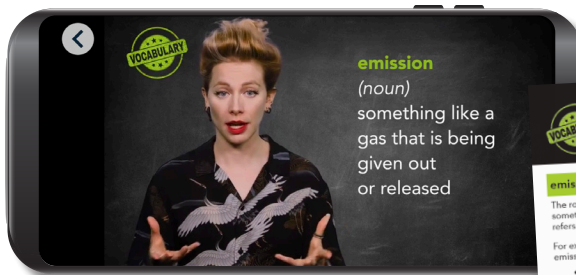
As students watch the video, in class or at home, have them take notes as an accountability assessment.

1. What is methane? Where does it come from? What are the effects? Why is too much methane a problem?
2. What is the greenhouse effect? Name some other greenhouse gases.
3. What is enteric fermentation?
4. Explain how biogas is created.
5. What are the benefits of biogas? Give some examples from the video of how biogas helps people and the environment.
6. Name three ways you can reduce food waste.
7. Write down two important things you learned in this episode.
8. Write down two questions you may have about this episode.

**Concepts Covered**

- Food waste, landfills
- Human impact on the environment
- Greenhouse effect and gases
- Methane emissions and effects
- Enteric fermentation
- Anaerobic and aerobic digestion
- Biogas as a form of renewable energy
- Composting
- Ways to reduce food waste

**Standards covered in the video: See pages 5-6**  
**Related Lesson Plans:** Biogas – From Cow Dung to Car Fuel (Grades 4-8; 9-12)



**emission**  
 (noun)  
 something like a gas that is being given out or released

In the video, important concepts and vocabulary are explained and defined with visuals and animations to scaffold comprehension.

**VOCABULARY**

**emission (noun)**  
 The root word for emissions is emit. When you emit something, it means you give out something like a gas. For example, cows emit methane during digestion. Emission refers to the thing or gas being emitted.

For example, waste that enters our landfills accounts for about 19% of all methane emissions in the U.S.

- So what do you think carbon emissions refer to? That's right, gases that relate to carbon, mainly carbon dioxide.
- How does the HomeBiogas system reduce emissions?

**renewable energy (noun)**  
 Biogas is a type of renewable energy. Renewable energy is clean energy, which means it comes from natural sources or processes that are not likely to run out. For example, wind and solar energy are other examples of renewable energy – we are not likely to run out of sunlight and wind. Wind is another form of renewable energy.

- How do we harness the power of the wind?
- What are other forms of renewable energy?
- Why is renewable energy important?

**organic (adjective)**  
 Organic refers to things that are living organisms. Organic waste is waste from plant and animal sources.

- What kinds of organic matter can be turned into biogas?
- What kinds of organic matter can be composted?





## 5E Lesson Plans



One Step, Celebration Innovation, and Climate Talk videos have a related lesson plan by grade span.

The lesson follows a 5E lesson plan: Engage, Explore, Explain, Elaborate, and Evaluate. In this lesson, students are making a biogas generator and then designing an experiment to test out different variables.

**EXPLORE** Student Led (30 mins)

Under teacher supervision, students will construct a biogas generator to create and collect methane gas. Tell students there are various ways that methane gas is released into the environment and one way is through digestion. Students will explore ways in which leftovers can become lifesavers. In small groups students will build a simple biogas digester, no animal waste required, at home or in their classroom. Over the next few days, the microbes in the soil will digest the mixture and create methane gas, which will fill the balloon. It is a great way to learn about decomposition and renewable energy resources.

**Make a Biogas Generator**

- Mix the vegetable scraps, grass, and soil. Using the funnel, pour it into the bottle. Mark the level of the mixture in the bottle.
- Stretch a balloon carefully over the opening of the bottle. Use duct tape around the balloon's base to form a tight seal around the bottle. It is important that the seal does not allow outside air to enter the bottle.
- Every day during class, measure the amount of mixture in the bottle. Measure the circumference of the balloon by wrapping a string around it, marking it with a different color pencil or marker each time, and measuring the string.
- Have students create their own chart to record their observations, and then create a graph to report their data.

As students track their experiment throughout the week, ask them to think about these questions:

- What is happening in the bottle? Why?
- What is happening in the balloon? Why?
- Why was it important to seal the balloon and bottle extremely well?
- What happens after a week? Why?

**Materials per group**

- 1 liter clear soda bottle
- 3 balloons
- Duct tape
- 1/2 cup raw vegetable scraps and grass clippings
- 1/2 cup soil from outdoors, not bagged soil
- Permanent markers
- Large spoon
- Funnel
- Ruler
- String

**EXPLAIN** Teacher Led (60+ mins)

Watch the video, "From Leftovers to Lifesavers" and then engage students in a discussion using Class Talk. If needed, use the teaching slides to explain how biogas is made and explain the concepts.

**ELABORATE** Student Led (60 mins)

In groups, ask students to create a hypothesis statement and design an experiment to explore one of the questions below. Allow students access to the Internet to do some research to support their hypothesis. Students will then prepare a visual poster presentation to discuss their project.

- Do different types of food create more biogas than others?
- Does temperature play a part in the amount and speed at which biogas is created?
- Is soil needed to create biogas?

**EVALUATION** Summative & Formative (60 mins)

**Poster Presentation:** Each group will present their hypothesis and research information. Students should be prepared to answer questions from both the teacher and their peers at the end of their presentation. Use the rubric to assess students' posters.

**EXTENSION PROJECT** Optional

Students will complete the experiment they designed in the Elaborate section above. They will gather data and create a poster presentation of their experiment including data and graphs.

Can you imagine having to find wood for fuel to cook? What if you had to do it in a place without any trees? What if you had to burn that wood inside a small kitchen where the smoke you inhaled made you sick? That's the reality for many people across the world. There are places where firewood or electricity and natural gas are not readily available to them. The good news is that the waste from livestock can fuel a biogas generator, which in turn creates an odorless cooking fuel, that can be piped right into a family's kitchen! Communities around the world are beginning to build and use biogas generators.

**OBJECTIVES**

**Lesson Description:** A look at the process of creating biogas, methane, and its role as a greenhouse gas, as well as its use in everyday human activities.

**Students will:**

- Students will discuss the large-scale environmental impacts resulting from human activity, including greenhouse gases.
- Students will describe how different natural resources are produced and how their rates of use and renewal limit availability.
- Students will define a problem based on a specific body of knowledge such as environmental science, and plan investigations using tools to gather, analyze, and interpret data. They will also generate data tables and graphs.
- Students will understand how a biogas digester works and consider how it is being used in many developing countries as an alternative energy source.
- Students will make their own biogas generator.

**Prior Knowledge**

- Students should have knowledge of the greenhouse effect and greenhouse gases.
- Students should have knowledge of decomposition.
- Students should have knowledge of photosynthesis.
- Students should have knowledge of aerobic and anaerobic respiration.

**Cross Curricular Lesson Suggestions**

**Math:** Students can use information from the following site to practice statistical analysis and graphing of data: [US Natural Gas Summary](#). For example, students can create a graph comparing the price of natural gas over time to the production, or by comparing the consumption of natural gas to the production, and then look for trends. Does the data show more production than consumption or vice versa? What are the implications of this data? Will the price of natural gas rise due to demand?

**Social Sciences:** Students can research the socioeconomic, political, and environmental impact of the Agricultural Environmental Stewardship Act (S-2542).

**ELA/Reading:** Students can create an informational poster to encourage the use of homemade biogas. Students should include the benefits and advantages of the technology as well as address any concerns.

**Fine Arts:** Students can design a magazine cover in any format to encourage the use of homemade biogas. Use any magazine as a template.

It begins with a quick introduction to the video content, the lesson description and objectives. Cross curricular suggestions are provided for math, social sciences, ELA, and art.







## 5E Lesson Plans

Rubric for Poster Presentation				
Sections	Requirements	5 = Excellent	3 = Good	1 = Needs Improvement
<b>Poster Content Knowledge</b>	Student Information, Poster Title, Problem Statement, Hypothesis, Materials, Procedures, Results, Conclusions, Data Chart, Graphs	All of the required elements are present.	Many of the required elements are present.	Few of the required elements are present.
<b>Organization and Mechanics</b>	Poster is neat. Information is written clearly or typed. Headings are clearly visible. No typos or spelling mistakes. No grammatical errors.	All of the required elements are present.	Many of the required elements are present.	Few of the required elements are present.
<b>Graphs and Diagrams</b>	Graphs and diagrams are clearly drawn or printed. Clear labeling. Axes are correct and included. Statistical analysis present and correct.	All of the required elements are present.	Many of the required elements are present.	Few of the required elements are present.
<b>Presentation</b>	Student is well-prepared and practiced. Clear voice and speech. Used time properly. Used samples and information from sources other than from text and teacher.	All of the required elements are present.	Many of the required elements are present.	Few of the required elements are present.

Rubric for Project Presentation				
Criteria	4	3	2	1
<b>Required Elements</b>	All of the required elements are well-organized and clearly visible.	Most of the required elements are well-organized and clearly visible.	Some of the required elements are well-organized and clearly visible.	Few of the required elements are well-organized and clearly visible.
<b>Organization</b>	Information is well-organized and easy to follow.	Information is mostly organized and easy to follow.	Information is somewhat organized and easy to follow.	Information is not organized and not easy to follow.
<b>Content Knowledge</b>	Student has excellent content knowledge and provides some examples.	Student has great content knowledge and provides some examples.	Student has some content knowledge and provides some examples.	Student has little content knowledge and provides few or no examples.
<b>Diagrams/Graphs</b>	Diagrams and graphs are properly drawn and labeled with relevant statistical analysis.	Diagrams and graphs are drawn and labeled with some statistical analysis.	Diagrams and graphs are somewhat drawn and labeled with little or no statistical analysis.	Diagrams and graphs are drawn and labeled incorrectly with little or no statistical analysis.
<b>Presentation</b>	Excellent delivery, clear speech, good flow.	Good delivery, somewhat clear speech and flow.	Fair delivery, somewhat unclear speech and flow.	Poor delivery, unclear speech and flow.

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Constructing Explanations and Designing Solutions	LS2.C: Ecosystem Dynamics, Functioning, and Resilience	Cause and Effect
Asking Questions and Defining Problems	LS4.D: Biodiversity and Humans	Stability and Change
Obtaining, Evaluating, and Communicating Information	ESS3.B: Natural Hazards	Systems and System Models
	ESS3.C: Human Impacts on Earth Systems	
	ESS3.D: Global Climate Change	
	ETS1.B: Designing Possible Solutions	

Next Generation Sunshine State Standards for Science (FL)	Texas Essential Knowledge and Skills for Science
SC.4.E.8.3 - Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	112.18.A.7.C - Identify and classify Earth's renewable resources, including air, plants, water, and animals, and nonrenewable resources, including coal, oil, and natural gas, and the importance of conservation.
SC.4.L.17.4 - Recognize ways plants and animals, including humans, can impact the environment.	112.18.A.9.C - Predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grazers or the building of highways.
SC.7.L.16.4 - Recognize and explore the impact of biotechnology (cloning, genetic engineering, artificial selection) on the individual, society and the environment.	

Rubrics are provided for evaluation. And following that are the standards aligned to the lesson.

In addition to the lesson plan, there are also activity sheets, vocabulary sheets, and teaching slides.

These grade-span specific lesson plans are aligned to NGSS, FL, and TX science standards.

As you see, the opportunities for extended learning from one video are endless.





## INTEGRATING ONE STEP INTO THE CURRICULUM

When you introduce One Step to your school, it is ideally connected with a schoolwide initiative to create a sustainable and responsible school culture that values and promotes environmental stewardship. One Step can be connected with campus greening efforts, consciousness-raising campaigns, or community engagement programs.

Whether you are teaching science, social studies, or language arts, One Step can be incorporated into your curriculum to explore topics surrounding the environment, climate change, and related global issues. Each episode includes discussion prompts to engage students further. Lesson plans include community service recommendations, projects, research, and school engagement ideas.

## HOW TO USE THE VIDEOS AND TEACHING CONTENT

Here are some suggestions for how to incorporate One Step into your curriculum depending on the amount of time you have in a week or month. You can see a list of video topics and content in the [One Step Index](#).

### Have one hour a week?

When you have limited time, the video and corresponding Class Talk is all you need to stimulate robust classroom discussions. Here's an example of how to use One Step in a single class period:

1. Choose a One Step, Celebration Innovation, or Climate Talk video.
2. Assign the video to students to watch as a homework assignment. Tell students to search for the video using the video ID (e.g., S1E1) which is noted above the video title.
3. Have students take notes using the note-taking guide in Class Talk.
4. Use the time in class to discuss the video using the Class Talk questions.
5. Encourage students to explore related topics and projects on their own.





## Have 2–3 hours a week?

With more time available, you can incorporate a grade-specific lesson plan and projects that accompany each video. Here's an example:

1. Choose a One Step, Celebration Innovation, or Climate Talk video.
2. Choose one of the associated lesson plans that incorporate the video.
3. Encourage students to explore related topics and projects on their own.

---

## NEED HELP?



The One Step team is just an email away. Reach out with questions any time:

[info@onestep-connect.com](mailto:info@onestep-connect.com).

This User's Guide can also be accessed while you're in the [One Step app](#) for quick reference.

We're so excited to have you as part of the One Step family and can't wait to see what you and your students do to #stompoutcarbon. Be sure to follow us on Facebook, Instagram, and Twitter and share the projects, progress, and discussions you're having in your classroom.

