

NATIONAL
GEOGRAPHIC
LEARNING

Imagine

IMAGINE A
BETTER WORLD



LEVEL 3 - Unit 8

Please join us and be part of the
IMAGINE WORLD

Imagine Level 3 - Unit 8 - Imagine a Better World

Project Title: Footprints

Essential Question: Is our school community consuming resources in sustainable ways?

UNESCO's Sustainable Development Goal: 12 Responsible Consumption and Production

Learning Goals & Skills

- Understand the concept of sustainable consumption.
- Identify positive and negative footprints across the communities students belong to.
- Identify and explain the impact of positive and negative consumption and production.
- Use critical thinking to identify problems in their community and creativity to look for solutions.

Collaborate with peers to create a plan to solve an identified problem.

Final Product

Students will create a plan to take action on an identified type of footprint and waste of resources that is happening at their school. As a final experience, they will present their idea to the school board.

Project Summary

According to UNESCO reports, excessive consumption is a massive problem that keeps taking unimaginable dimensions across the globe. Human footprints affect the planet in ways that we still don't know if they are reversible. The goal of this project is to bring awareness about how excessive consumption is a global and local problem that starts in simple choices of our everyday lives. We aim to show students that they can be change-makers, and in order to do so they'll be introduced to different strategies for taking action. First students will identify footprints in their school; then students will imagine different solutions for the problem; and then ideate an action plan. Lastly, students will present their solutions to the school board. By the end of this project we want students to understand different types of excessive consumption and waste of natural resources as well as be able to plan how to take action and make a difference in their communities.

Lesson by Lesson

Lesson 1

Learning Goals:

- Learn the concept of sustainable consumption.
- Practice critical thinking and collaboration skills to plan the next steps of the project.

Vocabulary: consumption, footprints, resources (water, energy, plastic, iron, plants, animals, etc...)

Opinion Statements:

I think... because ...

I believe ... because...

In my opinion... because...

Instructional Routines:

- Students will activate their prior knowledge by being provoked to think about the challenges of excessive consumption and footprints.
- Students will be introduced to the project's essential question and the challenge of "identifying an area of improvement in their school regarding consumption and conscious use of resources".
- Teachers will introduce the concepts of conscious consumption and footprints.
- Students will work actively on what they need and want to know to learn more to investigate if there are footprints on their school and what they are.

At the end of the lesson there will be a reflection session for wrapping up the learning of the day.

Lesson 2

Learning Goals:

Identify positive and negative footprints across the communities students belong to.

Identify and explain the impact of positive and negative consumption and production.

Use the Design for Change Protocol to take action in their community.

Vocabulary: consumption, footprints, resources (water, energy, plastic, iron, plants, animals, etc...)

Opinion Statements:

I think... because ...

I believe... because...

In my opinion... because...

I agree with... because...

I disagree with... because...

Instructional Routines:

- Students will actively investigate the concepts of conscious consumption and footprints.
- Students will start the cycle of Design for Change by observing their school environment and interviewing different people to try to identify possible footprints.

Based on the discussions of the day, students will wrap up the lesson with a reflection synthesizing their learning and planning the next day.

Lesson 3

Learning Goals:

Identify and explain the impact of positive and negative consumption and production.

Use critical thinking to identify problems in their community and creativity to look for solutions.

Vocabulary: consumption, footprints, resources (water, energy, plastic, iron, plants, animals, etc...)

Instructional Routines:

- Students will continue actively investigating the concepts of conscious consumption and footprints.
- Teachers will explore dilemmas of the impact of excessive production and consumption in the world.
- Students will continue the cycle of Design for Change now based on what they observed and imagining what could be different in their school.
- Students will list ideas for dealing with the identified problems and possible solutions for it.
- Students will vote for one problem and solution to be tackled.

Based on the discussions of the day, students will wrap up the lesson with a reflection synthesizing their learning and planning the next day.

Lesson 4

Use critical thinking to identify problems in their community and creativity to look for solutions.

Collaborate with peers to create a plan to solve an identified problem.

Reflect on the learning process.

Vocabulary: consumption, footprints, resources (water, energy, plastic, iron, plants, animals, etc...)

Instructional Routines:

- Students will elaborate on the solution preparing a pitch for the school board.
- Students will reflect on the project process by looking back at their learning and actions.

Lesson Plan

Lesson 1

Vocabulary: consumption, footprints, resources (water, energy, plastic, iron, plants, animals, etc...)

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- Teachers will introduce the concepts of conscious consumption and footprints.

- Students will work actively on what they need and want to know to learn more to investigate if there are footprints on their school and what they are.
- At the end of the lesson there will be a reflection session for wrapping up the learning of the day.

Excessive consumption is a world-wide problem. It happens to everyone every day and still we're trying to figure out how to stop it. Problem solving is a key skill to be developed from a very young age and through this lesson we want to empower students to recognize that they can help tackle a global problem starting at their school. This is a key lesson to spark curiosity from your students about the concepts that will be explored over the course of the investigation. Have your students share and present their ideas and background knowledge. Since it's the first lesson of the project, it's expected that they might need language support to make their thinking visible. If students use their mother language to explain their thoughts, welcome their contribution and model how to use the target language for specific words or sentence frames. Most importantly, have fun and empower your students to learn how to learn and take action in the world!

Step 1: Opening & Provocation (15 minutes)

Invite students to join the circle and have them greet each other. After the greeting, tell students that today they'll learn more about the project they'll go through over the next lessons. You may ask students if they know what a project is and welcome all different answers. Wrap up saying that a project is a process of taking action, solving a problem or creating something new. Tell students that on the top of the tables they'll find some images referring to current problems around the world. Give students 5 minutes to walk around the classroom observing each image carefully. At the end of this time, ask students to come back to the circle to debrief.

You'll facilitate the discussion using the thinking routine *I see, I think, I wonder*. On a chart write one column for each of these categories *I see, I think, I wonder*. Ask students to tell what they saw on the images and take notes of students' answers. Do the same process for the other two steps. If students have never gone through this routine, you may model some think-aloud showing how you would answer those. For example "I think that image 2 shows a problem of food waste." or "I wonder how large the world's population is.". Students might find it difficult to ask questions and express wonders. You may write on the chart some type of questions and tell them that they might consider asking *when, why, where, what, etc.* Since this is the first lesson of the project, students might not know how to use some key vocabulary about the topic so accept answers in their first language and give the target words in English, asking students to repeat after you.

Step 2: Introduce the project and final product: (10 minutes)

Tell students that they've just explored images that have a common pattern: **the problem of excessive consumption**. Ask them if they know what excessive consumption means. Have the following definition of excessive consumption written on a chart "*The use of the natural environment and resources in a way that continues to have destructive impacts on the planet.*" (UNESCO,2022). Explain to students what type of excessive consumption was portrayed in the images. Then introduce them to the word natural resources showing other pictures and examples of excessive consumption. Choose the examples, according to your teaching context, regional/global needs, and students' readiness. You may consider showing problems that connect waste of natural resources and non sustainable tourism, misuse of fossil fuel, the devastation of nature due to excessive production of trash, consumption as part of lifestyle, etc.

Step 3: Taking Action (10 minutes)

After this discussion, you may tell students, "Sometimes when we look at these problems we think of problems that are taking place far away from us, but usually these problems happen everywhere. In this project, you're going to answer the following question: *Is our school community consuming resources in sustainable ways?*". It's suggested that you have this question displayed somewhere in your classroom so students can keep it in mind. Tell students that they're going to investigate the types of waste that might be happening in their school, and if so, try to find a solution for it. Ask your students if they know the word sustainable..If they don't

,explain the meaning.

After introducing the project, ask students to make a prediction. Tell them that a prediction is trying to guess something. You may tell them, *“Before you investigate this question, what’s your prediction:do you think that our school community consumes resources in sustainable ways? Give me a thumbs up if you think we’re very sustainable or thumbs down if you think there is waste of resources happening in our school”*. Invite students who showed thumbs down to explain what type of resources might be wasted. Help with vocabulary as needed.

Now, as a foundational point for the project, you’re going to support students in creating a plan for investigating the questions. You may tell students *“So, in the next few days we’ll be investigating if there are problems of excessive consumption at our school. What do we need to do to answer this question?”* Have this question on a chart and document students’ answers. If students don’t know what to answer, offer some think-aloud. You may say *“Hmm, I think we need to visit different spots of the school to see what might be wasted.”* or *“Hmm, I think we can go to the kitchen to see if people waste food and ask the kitchen team what they observe.”* Students who are not used to having autonomy or doing projects might not know how to do project planning. And that’s our goal: to teach them how to own their learning. Prompt students as needed and be patient as learning how to plan to take action is a lifelong skill.

In order to make learning more active, we encourage you to have your students working in groups to brainstorm ways to answer the essential question, but this relies on the readiness of your students. If you observe that they’re ready for a workgroup let them do it.If you observe that it will be more effective for them to work in a circle or as a whole group, that’s okay. Make sure this moment is as active as possible, with no constraints on your students’ imagination. Have post-its on the table, paper and pencil for them to write a plan.

Step 5: Closing - (5 minutes)

For a wrap-up, agree with students on how they’re going to investigate the question in the next lesson, for example, going to the kitchen, observing the corridors to find waste of materials, visiting the bathrooms to check if taps are closed, etc.

Lesson 2

Vocabulary: consumption, footprints, resources (water, energy, plastic, iron, plants, animals, etc...)

Opinion Statements:

I think... because ...

I believe... because...

In my opinion... because...

I agree with... because...

I disagree with... because...

Instructional Routines:

- Students will actively investigate the concepts of conscious consumption and footprints.
- Students will start the cycle of Design for Change by observing their school environments and interviewing different people trying to identify possible footprints.
- Based on the discussions of the day, students will wrap up the lesson with a reflection synthesizing their learning and planning the next day.

Step 1: Opening (5 minutes)

Invite students to join the circle and have them greet each other. Invite students to play a game called *Imagine if...* In this game students are invited to use their imagination to create possible futures. Start with an “if statement” proposing a given scenario, for example: *If people did not throw trash on the ground, the streets would be cleaner. If we ate only what we needed, we would not waste so much food.* On a poster write and highlight the words *If... would... and* help students with vocabulary and verbs as needed.

Step 2: Mini Lesson (5 - 10 minutes)

Tell students that to investigate the essential question “*Is our school community consuming resources in sustainable ways?*” and come up with a solution for a problem, they’ll be going through a design thinking process called *Design for Change*. The Design for Change process has 4 steps: **Feel, Imagine, Do, and Share**. The *Feel* step is when we first observe and investigate the problem. One might interview people, observe different situations, take notes and more, to identify a given problem. The *Imagine* dimension is for imagining better scenarios and thinking about solutions to the given problem, including developing an action plan. During the *Do* step, students work on the solution using their plan and curated resources, while during the *Share* step, they share with the target audience the solution for the problem.

Explain to students that today they’ll go through the *Feel* step, observe potential problems around the school, talk to people and at the end of the lesson decide on one problem they plan to solve.

Step 3: Taking Action (25 - 30 minutes)

Have students walk around different spaces of the school according to the plan you developed together in the previous lesson. Be open to the unknown, maybe you’ll observe things that will lead you to places you were not expecting, and that’s okay. Do whatever is meaningful and connected to the project purpose: look for excessive consumption around school. Have students take notes or draw potential problems. They may also interview some people they find on their way and ask them what they notice about waste and excessive consumption around school.

Step 4: Closing (10 minutes)

Get students back in the circle and have them share what they noticed around school. For this moment, try to have a chart with the target vocabulary including excessive consumption problems and natural resources; this will help them explain what they’ve found. Document the big ideas on the board/chart.

After students share, tell them they will vote for the 1 situation that they would all like to see changed. Have a chart showing students how to express their opinion. Practice the sentence frames with students and then have them discuss and vote.

I think... because...

I believe... because...

In my opinion... because...

I agree with... because...

I disagree with... because...

Have in mind that students might get agitated during the discussion, so anticipate with them how to be respectful during the conversation.

At the end, tell students they will work on the solution for the problem voted on during the next lesson. When you mention the problem, make sure to revisit the target vocabulary, highlighting how that problem is connected to excessive consumption and which resource is being wasted.

Lesson 3

Vocabulary:

consumption, footprints, resources (water, energy, plastic, iron, plants, animals, etc...)

Instructional Routines:

- Students will continue actively investigating the concepts of conscious consumption and footprints.
- Teachers will explore dilemmas of the impact of excessive production and consumption in the world.
- Students will continue the cycle of Design for Change now based on what they observed imagining what could be different in their school.
- Students will list ideas for dealing with the identified problems and possible solutions for it.
- Students will vote for one problem and solution to be tackled.
- Based on the discussions of the day, students will wrap up the lesson with a reflection synthesizing their learning and planning the next day.

Step 1: Opening (5 minutes)

Invite students to join the circle and have them greet each other. As a way to warm up the day, play one or two rounds of the game *Guess What*. In this game, one person chooses a word, and the rest of the group tries to guess the word by asking yes/no questions. In this case, write words connected to the target vocabulary, for example, water, food, plants, animals, energy, plastic, etc..

Step 2: Mini Lesson (5 minutes)

Revisit the problem chosen in the last lesson and tell students that today they're going through stages 2 and 3 of the Design for Change Process. First they will IMAGINE the change, ideating solutions for the problem and then, if there is time, they will start DOING, which is taking action for solving the problem. When you present the problem, make sure to revisit some key vocabulary, highlighting how that problem is connected to excessive consumption and which resource is being wasted.

Before students start working in groups, model how to think of ideas. Although brainstorming ideas might seem a very simple process, for some students it might be very hard. Write a problem (not the actual one) on a board and model: think of solutions, play both logical and crazy solutions, modeling that the brainstorming process is not a moment for constraints. After adding a few solutions, ask students what solutions they would add to your problem.

Step 3: Taking Action (25 - 30 minutes)

Now, write the problem they get to solve on the board or chart. Divide children into groups and ask each group to come up with at least 5 ideas. Distribute paper and pens so students can document their ideas. Encourage a variety of ideas - even wild ones. Tell children there is no bad idea, and that every idea matters. Support students with vocabulary as needed. Gather students and together discuss the ideas. Ask each group to choose one of the ideas; that's the idea they'll work on. At this point, students may regroup according to the idea they want to work on.

Tell students that now they'll ideate a plan to work on their idea. Some students might not be familiar with what a plan is, so pause here and, again, model some thoughts aloud to the class. Elect one example and model to students how you would plan the steps for that plan. After that, ask student to consider the following:

What are the steps for your action plan?

What resources will you need?

Who and how many people will be required?

In your group, who will do what?

What is your timeline?

Step 4: Closing (10 minutes)

Have students in a circle again, and ask each group to have a representative to share their idea and plan. For this sharing moment, students will give feedback on each other's ideas. Since it might be the first time they give/receive feedback, you may consider explaining to them that feedback is a moment when they share something that is strong about someone's work and the next steps for making it even better. Model this by giving a student some feedback. Suggested example: *"I really like how you have clear steps to solve this problem. Have you considered speaking to the Science teacher about this problem? Maybe she can help you!"* Have the group reps sharing and the rest of the group giving them feedback. If nobody volunteers to give feedback, model giving feedback yourself. Sometimes students don't know what to say and they need a model to follow. Keep sentence frames and vocabulary available to help with language as needed.

Lesson 4

Vocabulary: consumption, footprints, resources (water, energy, plastic, iron, plants, animals, etc.)

Instructional Routines:

- Students will elaborate on the solution, preparing a pitch for the school board.
- Students will reflect on the project process by looking back at their learning and actions.

Step 1: Opening (5 minutes)

Invite students to join the circle, have them greet each other and tell them to share what solution each group came up with. Use this as a moment to assess which students might need some help. Explain to students that today they'll finish their proposal. Revisit the questions students must bear in mind:

What are the steps for your action plan?

What resources will you need?

Who and how many people will be required?

In your group, who will do what?

What is your timeline?

Tell students they'll need to put their plan on a presentation slide to show their target audience. The way students present will depend on the resources you have available in the classroom, laptops, posters, etc. Be mindful of your timeframe and only use apps students are already familiar with, unless you have extra time to teach them.

Step 2: Taking Action (30 minutes)

Use this moment for group work. Have in mind which groups you're going to prompt more or offer extra support.

Step 3: Closing (10 minutes)

For closing the project, ask students to join the circle and have them discuss their favorite part of the project and what they learned about **taking action** and **excessive consumption**. Last thing, set up a date and a time with students to present their solutions to the target audience. Make sure students are present on the day the solutions are presented.

Additional Resources

- Have students talk to the Science teacher about sustainability, excessive consumption and natural resources.
- Ask students to take photos of the neighborhood they live in and identify problems of excessive consumption.
- Ask students to take photos on their way to school and identify problems of excessive consumption.
- Take students on a walk near the school and work on problems beyond the school wall. Go over the same process to solve the problem.
- Invite a non-profit organization that works with sustainability to present the work they do.
- Share students 'solution and taking action' process with the local news to highlight children's work.

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