FORTNITE

INCLUSIVE ISLAND

LESSON PLAN

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CLASS INFORMATION

Grades: 8–12 (students must be 13 or older to participate in this class)

Lesson timeframe: 7–10 class periods, depending on student familiarity with Fortnite Creative

Featured tool: Fortnite Creative

Class / learning environment: A Fortnite-capable device with a one-to-one device-to-student ratio, and with internet connectivity. A computer lab or mobile laptop cart should provide the ideal environment.

LESSON OVERVIEW

We've witnessed the positive impact that play can have in classrooms and communities, but can it really help all of humanity thrive?

The United Nations has 17 Sustainable Development Goals (SDGs) consisting of must-reach targets for the year 2030. These SDGs were specifically crafted to ensure peace and prosperity for people and the planet, now and into the future.

Making sure our own communities are accessible for citizens with disabilities and our growing senior citizen population is essential.

This Fortnite Creative challenge relates to Sustainable Development Goal 10: Reduce Inequality within and Among Countries. Target 10.7 within this goal focuses on facilitating orderly, safe, regular, and responsible mobility of people.

In this lesson, students will add a variety of structures on a starter island using the Fortnite Creative toolset, and evaluate the accessibility of these structures. They will use design thinking to improve the accessibility of the structures for all people.

After students have built their inclusive and accessible residential and commercial properties, they will record a video walkthrough, or capture screenshots that demonstrate their solutions.

"The true measure of any society can be found in how it treats its most vulnerable members."

– Mahatma Gandhi

This lesson asks students to consider the following:

- How does design thinking support creative problem solving?
- How does designing and building inclusive, accessible structures improve the lives of all people?
- What engineering and industry innovations are needed to ensure orderly, safe, responsible mobility?

As an instructor, you can learn more about inclusive design and engineering by watching the video below.

LEARNING GOALS AND OUTCOMES

Students will create an inclusive island using the Fortnite Creative toolset. As part of the process, they will:

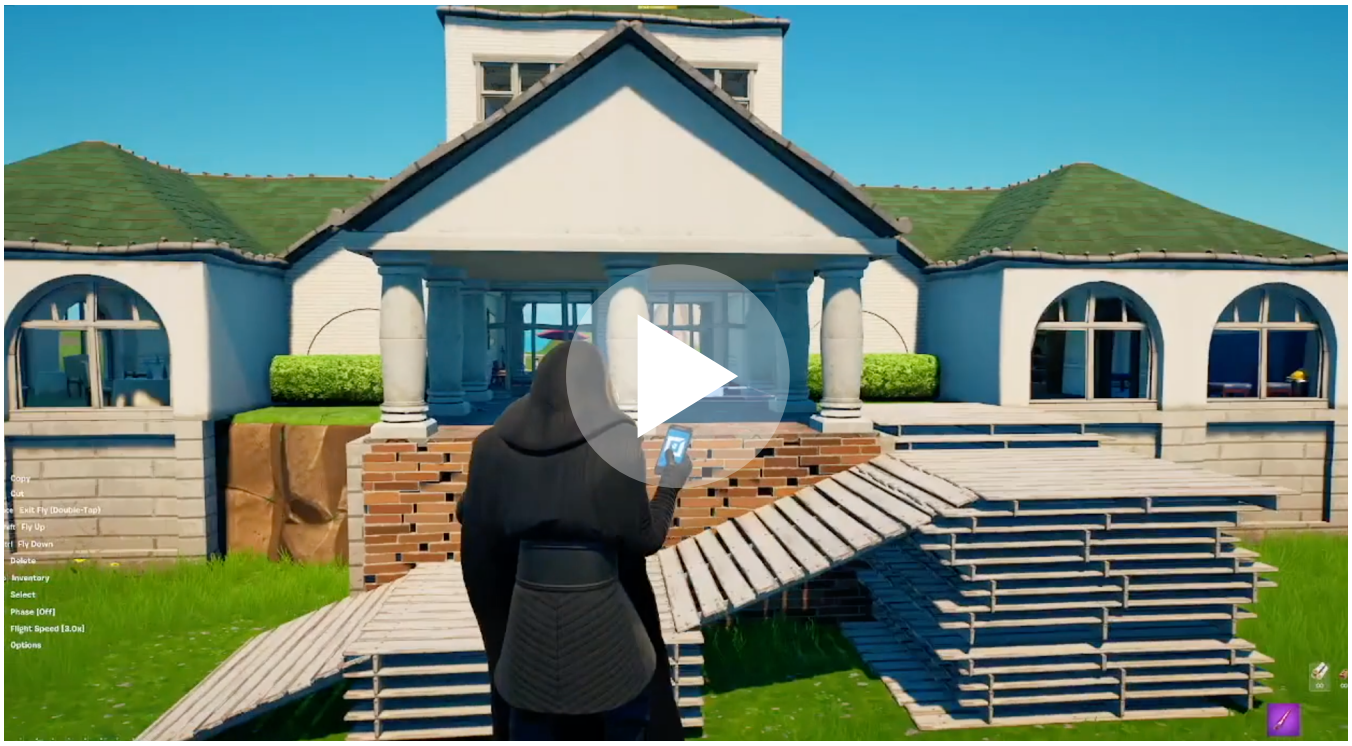
- Learn about Sustainable Development Goal 10: Reduced Inequalities.
- Demonstrate an understanding of the need for responsible and effective mobility for all people.
- Apply a design thinking model to create simple solutions to a complex problem.
- Plan and develop solutions that improve accessibility and inclusion in residential and
- commercial structures.
- Use Fortnite Creative to present these solutions to local or global audiences.

ACTIVITIES

1. INTRODUCE STUDENTS TO SDG #10

Show the following videos at different points throughout the project to create excitement about the possibilities of potential solutions.

- We The People for the Global Goals featuring global celebrities
- Understanding Goal 10: Reduced Inequalities
- #Inequalityls: Tiffany Yu on inequality and disability
- **SDG 10 Student Video** (see below)



Also share these accessibility videos during the planning phase:

- Accessibility and Inclusion for All
- Why is Accessible Design Good for Everybody?
- Accessible Homes
- Disability-Friendly Home Design (take a virtual tour of a real home)
- BSI Documentary – Building Accessibility (begin with the end in mind when designing)

2. BRAINSTORMING AND PLANNING A SOLUTION

1. The next step is to begin brainstorming and planning an inclusive island.
2. Review Sustainable Development Goal 10: Reduced Inequalities.
3. Have students state in their own words the exact problem that needs to be solved.
4. Brainstorm possible engineering solutions for improving mobility (such as natural or man-made adaptations, structural designs and material changes, or temporary housing).
5. Rank the list from most important to least important for improving mobility and access.
6. Discuss the iterative design process.
7. Have students make a rough sketch of their island layout.

3. EXPLORATION AND KNOWLEDGE APPLICATION WITH FORTNITE CREATIVE

Now that students have done some brainstorming and planning, it's time to put that plan into action!

Students who are unfamiliar with Fortnite Creative can review Getting Started, Playing Games, and Building Your First Island on the Fortnite Creative Documentation site. Also use the Fortnite Creative Glossary for definitions of terms.

Have the students rewatch the pause-and-play video again if needed.

1. Students should begin building their experiences in Fortnite Creative using any starter island.
2. They can use any and all of the building tools — prefabs, galleries, devices, and more, found in the Creative inventory.
3. Every few class periods, ask students to reflect on their work and compare it to their initial brainstorming and planning ideas. Introduce the idea of iterative design to help think about the new ideas and changes they are making to their islands.

4. SHOW OFF YOUR WORK!

It's time for students to share their work with the class, and online, if they choose.

1. Building inclusive spaces requires genuine empathy. Have students discuss the difficulties they faced when redesigning their chosen structures, and how their solutions can be applied in the real world.
2. Have students create a video walkthrough
3. or a slide deck
4. to show their inclusive island. What careers and career skills are important for this specific SDG?
5. Publish the video, image captures, or demonstration on social media or another school-approved platform such as Microsoft Flipgrid.

Consider using the following hashtags on Twitter and Instagram to help promote and share your island: **#EpicGames #FortniteCreative #EpicSDGs #TeachSDGs**

ACCESSIBILITY AND ACCOMMODATIONS

Fortnite offers adjustable settings to meet various accessibility needs:

- **Color-Blindness Support:** There are extensive color-blindness settings that can be toggled on or off at any time. To find these settings, navigate to **Game Menu > Settings > Video > Graphics**.
- **Visualize Sound Effects**: This setting turns on the visual radial indicator for sounds, such as other player steps, the direction of gunfire, or nearby treasure chest audio. To find this setting, navigate to **Game Menu > Settings >Audio > Sound.**
- **Keyboard Remapping:** Under **Keyboard Controls**, you can reassign keys on the keyboard for various controls.
- **Controller Support:** If students prefer to use a wired or wireless controller, they can change the controller mapping under **Wireless Controller**.
- **Xbox Adaptive Controller:** On PC or Xbox, students can also use the Xbox Adaptive Controller, if needed.

STANDARDS MAPPING

NEXT GENERATION SCIENCE STANDARDS (NGSS)

HS-ETS1-1. Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.

HS-ETS1-2. Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.

ISTE STANDARDS FOR STUDENTS CONNECTIONS

Empowered Learner

- Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals, informed by the learning sciences.

Innovative Designer

- Students use a variety of technologies within a design process to identify and solve problems by creating new, useful, or imaginative solutions.
- Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.
- Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.

Creative Communicator

- Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats, and digital media appropriate to their goals.
- Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.
- Students create original works or responsibly repurpose or remix digital resources into new creations.
- Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.
- Students publish or present content that customizes the message and medium for their intended audiences.

Global Collaborator

- Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.
- Students explore local and global issues and use collaborative technologies to work with others to investigate solutions.

Global Competencies

- Creativity, Critical Thinking, Citizenship, and Communication (Optional Collaboration)

INTERDISCIPLINARY AND 21ST CENTURY CONNECTIONS

Relevant content areas include:

- Health, wellness, and personal development
- Technology and design
- Physics
- Biology
- Entrepreneurship
- Social emotional learning

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ASSESSMENT

	DISTINGUISHED (4)	PROFICIENT (3)	COMPETENT (2)	DEVELOPING (1)
EPIC SDGS CONTENT / LEARNING OBJECTIVES	Solution reflects understanding, planning, and synthesis of the problem and solution. Learning objectives are exceeded or mastered.	Solution reflects some planning and understanding of the problem, and demonstration meets desired learning objectives.	Solution shows a basic understanding of the problem and demonstration of learning objectives.	Solution does not convey the required information or understanding as it pertains to the learning objectives.
SOLUTION DEVELOPMENT	Solution is functional and refined, with extra features that show applied learning and skills.	Solution functions in the way the student intended and was developed through planning to meet the exact challenge.	Solution demonstrates basic functionality, and has only minor oversights.	Solution has many oversights that inhibit its intended purpose.

	DISTINGUISHED (4)	PROFICIENT (3)	COMPETENT (2)	DEVELOPING (1)
SOLUTION AESTHETICS/ DESIGN	Solution is organized, makes good use of space, shows clear use of applied knowledge, and has the audience in mind. World is inviting and thoughtful, and intentional design is apparent.	Solution is organized and pleasing to the eye. It's easy to navigate, shows clear understanding, and thoughtful design.	Solution is organized and pleasing to the eye. It's easy to navigate, shows clear understanding, and thoughtful design.	Solution requires more attention to the look and feel of the experience and the general design and function.
REFLECTION / PRESENTATION	The student can describe how their Epic SDGs solution works, how it solves the problem, how they created it, and why. They can also share one way in which they can personally help with this problem in real life.	The student provides a thoughtful reflection and explanation of the project and how it relates to the desired learning outcomes.	The student can mostly describe or reflect upon the basics of the Epic SDGs solution and intended learning objectives.	The student demonstrates difficulty describing the intent of their Epic SDGs solution.
Teacher's Feedback:				**____/16**

STUDENT HANDOUT

STUDENT NAME(S):

Use this for planning your island before you start building it in Fortnite Creative.

1. Make a rough sketch of your island by hand.
2. **NOTE:** You can get a rough overview of your island in **Build mode** by pressing the **P** key to activate your phone tool, pressing the **B** key to open the **Quick Menu**, then clicking **Show Map** at the bottom of the panel.
3. Use the sketch to plan your accessibility and inclusive solutions.
4. When your plan is ready, seek feedback from peers and/or your teacher before heading into Fortnite Creative to prototype your solutions in 3D.

Consider using your sketch to show how you'll accomplish improvements to:

- Entrances and exits
- Transitions between floors
- Accessible doorways (no doors is **not** an option)
- Washrooms and bedrooms
- Shopping aisles for stores
- Systems (buttons, switches, devices, and so on)
- A proper scale with a Fortnite player for reference

At the end of the project, consider the following:

- Is there an area where you live that could benefit from inclusive upgrades? If so, what might be a great first step to making that happen?
- Do you think video games have a role in promoting inclusive spaces and architecture? Why?

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