It’s ARt!

Incorporating Art into AR

Learning Objectives

1. Describe the role of art in augmented reality
2. Understand the difference between copyright and creative commons
3. Understand how digital artists can share their work with AR

The ARt in AR

In Augmented Reality, the "A" in STEAM represents more than just a pretty picture; it is the bridge between technical logic and human emotion. This section focuses on how to ethically source materials and how you, as a digital artist, can turn your own creations into interactive AR reality.

Copyright: Protecting the Artist

Copyright is a legal protection that automatically belongs to creators the moment they make something original. Whether it is a hand-drawn sketch, a digital painting, or a custom sound effect, the creator owns the rights to how it is used.

- *Standard Copyright:* Often labeled as "All Rights Reserved." You cannot use these assets in your Lens without explicit permission or a paid license.
- *Public Domain*: Works where copyright has expired or never existed. These are free for anyone to use, modify, and share.
- *Fair Use:* A legal doctrine that allows limited use of copyrighted material for educational or transformative purposes. However, for a public Snapchat Lens, it is best to stick to assets you own or those with open licenses.

Creative Commons (CC): The Community Garden

Creative Commons is a licensing system that allows artists to share their work with the public while keeping their copyright. It tells you exactly how you are allowed to use a file.

- *CC BY (Attribution)*: You can use the asset, but you must give credit to the original artist.
- *CC BY-NC (Non-Commercial):* You can use it for your school project, but you cannot use it to make money.
- *CC0 (No Rights Reserved):* The creator has waived all rights. You can use, change, and distribute the asset freely without asking permission or providing credit.

The ARtists in AR

Tying in the "A": Using Your Own Art

The most powerful way to explore the "A" in STEAM is to be the primary creator. By using your own digital art, you ensure 100% legal ownership and complete creative control.

1. From Canvas to Component

Digital artists can export their work as .png files with transparent backgrounds. These become the Textures that your scripts use.

2. The Art of the "Pop"

Art in AR isn't static; it moves. As an artist, you get to decide the Animation Logic:

- *The Burst*: Does your art grow quickly (currentScale += 0.08) for a high-energy comic feel?
- *The Dissolve*: Does it fade out slowly (material.alpha -= 0.03) to create a ghostly, magical effect?

Knowledge Checks

The Art of the Experience

Instructions: Answer the following questions to demonstrate your understanding of the creative side of AR and the rules for using digital art.

1. The Role of Art in AR

In Augmented Reality, what is the primary role of the "Art" (the 2D stickers, 3D models, and textures)?

A. To slow down the computer so the user can see the code.

B. To act as the "Visual Interface" that connects the digital logic to the real world.

C. To hide the camera feed so the user doesn't see their own face.

D. To replace the need for any programming or scripts.

2. The Digital Handshake: Sharing Work

Digital artists often use specific platforms and formats to share their work with AR developers. Which of the following is a common way an artist might share a 3D asset for you to use in Lens Studio?

A. By printing it out on a piece of paper and mailing it to you.

B. By uploading a standardized file (like an .fbx, .gltf, or .png) to a digital marketplace or portfolio site.

C. By describing what the art looks like in a text message.

D. By deleting the file as soon as it is finished.

3. Short Answer: The Ethical Creator

You find a cool superhero logo on the internet and want to use it as a sticker in your Lens. It is marked as Creative Commons with Attribution (CC BY). What must you do to use this art legally and fairly?

Answer:

_____

_____

_____

(Hint: Look at the word "Attribution"—who needs to be mentioned?)

Experimenting is Fun!

Experimenting Globally

Learning Objectives

1. Understand that there are no rules in art
2. Name two types of creators in AR
3. Identify resources to find digital assets

Experimenting - Globally

The STEAM Gallery: Your Art, Your Rules

Up until now, we've used placeholder images and sounds. But the true power of AR is that it provides a digital stage for your own original creations. Whether you are a painter, a musician, or a photographer, Lens Studio is the gallery where your work comes to life.

For the Visual Artists (The Designers)

Think of your AR Lens as a Living Canvas.

- *The Challenge*: Instead of a generic star, import a character you've drawn or a photo you've taken.
- *The STEAM Link*: Use the Behavior Scripts to make your art react to the viewer. A portrait that "grows" when tapped or a landscape that toggles colors when the camera flips turns a "static" drawing into an interactive experience.

For the Audio Creators (The Sound Designers)

Sound is the invisible layer of AR that creates "Atmosphere."

- *The Challenge*: Record a "foley" sound (like crinkling paper or a bird chirping) or compose a short loop in a digital workstation. Use AudioTrimmer to polish it.

Experiment: The "Original Content" Import

1. *Export your Art*: If you have a digital drawing or a recorded sound, save it as a .png (for images) or .mp3/.wav (for audio).
2. *The Drag-and-Drop*: Drag your file directly from your computer folder into the Asset Browser in Lens Studio.
3. *Swap the Texture/Track*: Select your Image Object → Change Texture to your art.
    - Select your Sound Logic → Change Audio Track to your recording.

In the professional world, the people who build these experiences are called Creative Technologists. They are half-artist and half-engineer. By bringing your own art into this project, you are practicing exactly what the pros do at places like Pixar, Nike, or NASA!"

Experimenting - Globally

Experiment: The "Global Director" Challenge
Your goal is to create a multi-sensory experience using your Global_Controller.

The Project Brief
Your Lens must include at least three different Global Behaviors. You decide what they are, but they must cover these three categories:

1. An Entrance: Something happens the moment the Lens opens (On Awake).
2. An Interaction: Something changes when the user touches the screen (Tap).
3. A Perspective Shift: Something toggles or moves when the camera flips (Camera Switched).

Creative Resources: Finding Your Assets
A great developer doesn't just build—they curate. Use these professional "Open Source" (free to use) libraries to find the high-quality assets for your project:
For Sound Effects & Music

- Internet Archive (archive.org): A massive library of vintage sounds, field recordings, and music. Great for finding unique, "organic" sounds that don't sound like a typical app.
- AudioTrimmer: If you find a 5-minute song on the Archive but only need the 3-second drum beat, upload it here to crop it instantly before importing to Lens Studio.

For Visuals & Textures

- Unsplash: High-resolution photography.
- Flaticon: The best place to find simple icons or stickers that work well as AR buttons.

The STEAM Idea Greenhouse

Don’t worry about the buttons for a moment. Let’s focus on the Experience. Use this space to map out a Lens idea you’d like to build for your final portfolio.

Step 1: The "What if?" (Logic Mapping)

Every great AR experience starts with a simple "What if." Fill in the blanks for two different directions your Lens could take:

1. *The Interactive Discovery:* What if, when the user [Action: Tap/Smile/Open Mouth], then my [Digital Art Piece] reacts by [Response: Scaling/Rotating/Disappearing]?
2. *The Environmental Shift:* What if, when the user [Action: Flips the Camera], then the whole atmosphere changes by [Response: Playing a Specific Sound / Swapping an Image]?

Step 2: The Asset Hunt (Curating Your World)

Think about the "Art" and "Sound" you want to bring into this world. Use the resources we discussed to start your collection:

- Visual Mood: Go to *Unsplash* or Flaticon. What is one image or icon that represents the "vibe" of your Lens?
- Acoustic Mood: Go to archive.org. If your Lens was a movie, what kind of sound effect or music would be playing in the background?

Step 3: Global vs. Local (The Architect's Choice)

Look at your ideas above. Draw a quick circle around the "Brain" you think you’ll need:

1. "I need a script that lives on a specific sticker." → Local Behavior
2. "I need a script that controls the music or the camera flip." → Global Behavior

Knowledge Check

The Creator’s Landscape

Instructions: Answer the following questions to demonstrate your understanding of the creative mindset, the roles within the industry, and where to find the building blocks for your AR projects.

1. The "Golden Rule" of Art

In the world of creative expression and AR design, what is meant by the phrase "there are no rules in art"?

A. You don't have to follow the laws of physics or gravity in your digital scene.

B. You can use any file format you want, even if the computer can't read it.

C. You are free to experiment, break traditional patterns, and combine ideas in ways that have never been done before.

D. You don't need to save your work because art is temporary.

2. The Digital "Package"

When an Audio Designer shares their work with you, which file format are you most likely to import into your Asset Browser?

A. .png or .jpg

B. .mp3 or .wav

C. .txt or .doc

D. .pdf

3. Short Answer: The Immersive Balance

Imagine you are building a Lens featuring a thunderstorm. If the Visual Designer creates a bright flash of lightning, what is the Audio Designer's job to make that moment successful?

Answer:

_____

(Hint: What sound does your brain expect to hear after it sees lightning?)