**Department of Arts Administration, Education and Policy**

| UNIT PLAN OVERVIEW | |
|---|---|
| (Revised 2022) | |

| Teacher Candidate | **Holly Romano** |
|---|---|
| School | Dublin Coffman High School |

| UNIT TITLE | Human vs. Machine |
|---|---|
| Length of Class Period | 45 minutes |
| Approximate Number of Students in Each class | 20 |
| Grade Level or Course Title | 9th grade, ART 1 |
| Beginning Date for this *Unit* | End of trimester session |
| Ending Date for this *Unit* | 8 classes |

## ENDURING UNDERSTANDINGS (FROM ODE 2022 STANDARDS)

**HSP.1 CR** Evaluate various sources for visual reference.

**HSP.2 CR** Explore multiple solutions to artistic problems.

**HSP.4 CR** Determine and apply what it means to create and share works of art ethically.

**HSP.1 PE** Determine appropriate levels of artisanship through persistence.

**HSP.2 PE** Demonstrate increasing skill with materials and techniques.

**HSP.3 RE** Utilize art criticism methods when responding to works of art.

**HSP.4 RE** Identify the relationships between community or cultural values and trends in visual art.

**HSP.1 CO** Understand how works of art reflect diverse communities, viewpoints, and perspectives.

## CRITICAL ISSUE / BIG IDEA

**A). Anticipatory Set** (what do the students already know and how will you capture the students' interest in the concepts you are presenting)

**B). Rationale (**why is this unit of study relevant?)

A) The students are familiar with the principles of art and elements of design and know standard art techniques such as drawing, painting, and mixed media.

These students have a base level of knowledge about art history, including some of the more popular culture examples such as Picasso, Van Gogh, Frida Kahlo, and Warhol.

After being in my classroom for most of the trimester, they are familiar with the Studio Habits of Mind and choice-based lessons where they get full choice on their project. We also utilize Google classroom tools.

Being kids during the age of technology and mass communication, they might also already be familiar with the term AI art since it has often been in the news, utilized, and commented about in the media in recent months.

B) Recently, AI art and its ethics have been spotlighted and questioned. Artists feel like their work has been stolen or exploited by for profit companies with zero consideration of the original creators. Many artists also feel threatened by the real possibility of how it will affect the (not so distant) future of art.

On the other hand, some artists are embracing it as a new artform. When photography became mainstream in the mid nineteenth century, the artworld worried it would destroy traditional fine art mediums like painting. And yet today, almost 200 years later, painting is still a popular art medium and photography it is respected in its own right. Multiple artists like Refik Anadol, Alex Kiessling, Sougwen Chung, and Pindar Van Arman embrace AI technology to enhance their artwork, conceptual messages, and art practice.

Also, it has resurfaced the question of what it means to be an artist, and how much of art must be done by the hand of the original creator. Historic and contemporary artists like Michaelangelo, Andy Warhol, Jeff Koonz, Takashi Murakami, and Kahinde Wiley have used/use production assistants to carry out their visions for them. If that doesn't make their artwork less valuable, then why would using AI technology decrease it's worth?

These students, who have grown up using technology in their everyday lives, might not understand why it can feel like a threat or an unwanted advancement to some. They might not be forward-thinking enough to empathize with professional artists who worry or are affected by the ease-of-use popular AI art tools.

This project will move them beyond knowledge of human made art into considering art made by the assistance of technology and reflect on what that means. It will have them consider what happens when technology is used to make art without a human

hand. It will cause them to reflect on questions like, "What is art?", "What is an artist?", "Who owns artwork?" and "What is the future of art?"

**Central Focus** (creating, presenting, interpreting, responding, and/or relating art to context)

- Students will learn the history of AI art, how it was made, and the concerns artists have about it.
- Students will investigate how AI art tools work.
- Students will explore and experiment with AI art tools.
- Students will compare the experience of making AI art to human-made art.
- Students will consider ways artists can use AI tools to support and/or enhance their art making.

**Essential Questions** (provocative, engaging, critical)

- How is artificial intelligence influencing artmaking?
- Is AI art "real" art?
- How do AI tools work? Is it ethical?
- Is AI going to replace human artists?
- Does art need to be created by a human?
- Can technology be used as a support tool?

**Possible Integration**

- Computers/technology class
- STEAM
- COG

| DESCRIPTION OF THE ESSENTIAL EDUCATIONAL CONTENT OF THIS UNIT | |
| --- | --- |
| **Lesson One** | |
| Title | **Deep Learning Mode** |
| Lesson Description | Using Mentimeter, the teacher will assess students' knowledge and assumptions about AI art. Then the teacher will begin by helping the students define what AI art is, it's history, and how it works. |

| | |
|---|---|
| | The teacher will use an interactive activity to help explain how text-prompt AI art is made having the students act as image creators and the teacher as the deep learning software. This activity will show how the deep learning software gathers knowledge and creates the images so students can understand it fully and decide for themselves their opinions about it. |
| | Then there will be a class discussion facilitated by the teacher on how the students feel about how AI art is created. |
| Approximately how long will this lesson take? | 1 class |

| **Lesson Two** | |
|---|---|
| Title | **Time for beta testing** |
| Lesson Description | Now that the students understand what AI art is and how it is made, they will learn picture merge and text-to-prompt model software. |
| | The teacher will introduce the class to [Night Café](#) and [Pikazo](#) by using it on the classroom smartboard. The teacher will walk-through how to use the software with the students. |
| | Then the teacher will introduce the activity objectives for students — they will use any of the listed AI tools to explore, experiment, and create images of their choosing. This will reinforce the understanding they learned in lesson one and help familiarize them with the tools for the project of lesson three. |
| Approximately how long will this lesson take? | 2 classes |

| **Lesson Three** | |
|---|---|
| Title | **Human vs. Machine** |
| Lesson Description | Now that the students know what AI art is, how it's made, and understand how to create it, they are going to create two versions of a project with the theme "Art of the future." |

| | One version is a human-made artwork using any traditional art material/medium of the students' choosing. The other is an AI generated piece made in [Midjourney](#). |
| --- | --- |
| | When the students are finished, they will present their two versions together as well as a reflection on the process of creating with AI tools versus creating by hand. |
| | There will be class discussion about the students' experience, limitations, and possible uses for AI tools as a way to support artists in their artmaking. |
| Approximately how long will this lesson take? | 5 classes |

**Explain how technology has been used in this unit**

Students will be using cell phones, iPads, Chromebooks, and/or computers

## LESSON PLAN

| | |
| --- | --- |
| Teacher Candidate | Holly Romano |
| School | Dublin Coffman High School |

| | |
| --- | --- |
| **LESSON NUMBER** | 1 |
| Lesson Title | Deep learning mode |
| Length of Class Period | 50 minutes |
| Approximate Number of Students in Each class | 25 |
| Grade Level or Couse title | 9th grade – Art 1 Foundations |
| Beginning Date for this *Lesson* | |
| Ending Date for this *Lesson* | |

**CONTENT STATEMENT – CREATING (CR)** (FROM 2022 ODE STANDARDS)

**HSP.4CR** Determine and apply what it means to create and share works of art ethically.

**CONTENT STATEMENT – PERFORMING (PE)** (FROM 2022 ODE STANDARDS)

**CONTENT STATEMENT – RESPONDING (RE)** (FROM 2022 ODE STANDARDS)

> **HSP.4RE** Identify the relationships between community or cultural values and trends in visual art.

**CONTENT STATEMENT – CONNECTING (CO)** (From 2022 ODE Standards)

**Performance-based Assessment Objectives**

- Assure that students are learning the material and understanding what AI art is, how it's created, and it's history.

**Performance-based Assessment Strategies**
(attach assessment documents if applicable)

Formative
- [Mentimeter.com](Mentimeter.com) used to asses students' prior knowledge
- Monitor class reflective discussion about how AI art is made
- Ask guiding questions

Summative
- Sketchbook reflections

**Academic Language**
**Vocabulary** (define each)

- **Artificial intelligence (AI)** - the theory and development of computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages (Oxford University Press, 2023).

- **AI art** - any artwork, particularly images and musical compositions, created through the use of artificial intelligence (AI) programs, such as text-to-image models and musical generators. It is sometimes confused with digital art. While both Ai art and digital art involve the use of technology, AI art is characterized by its use of

generative algorithms and deep learning techniques that can autonomously produce art without direct input from human artists (Wikimedia Foundation, 2023).

- **Deep learning** - a subset of machine learning that uses artificial neural networks to mimic the learning process of the human brain (Wikimedia Foundation, 2023).

- **Text-to-image model** - a machine learning model which takes as input a natural language description and produces an image matching that description (Wikimedia Foundation, 2023).

- **Copyright** - the exclusive legal right to reproduce, publish, sell, or distribute the matter and form of something (Merriam-Webster, 2023).

- **Fair use** - a legal doctrine that portions of copyrighted materials may be used without permission of the copyright owner provided the use is fair and reasonable, does not substantially impair the value of the materials, and does not curtail the profits reasonably expected by the owner (Merriam-Webster, 2023).

- **Human-made art** – Art made by the hand of a human artist

**Additional Language Demands** (*specific* communication task)

- Written phrases through [Mentimeter.com](Mentimeter.com) to show prior AI knowledge
- Oral class discussion about how AI art is made and its value
- Slides with written text to present lesson
- Written or drawn reflection in sketchbooks

**Accommodations for Special Populations**

- Students who are not comfortable with class discussion can write down their thoughts in their sketchbooks.

- Students who have writing or language challenges can type in a document and share it with the teacher or draw in their sketchbooks.

**Art/Visual Culture Examples** (list all artists, artwork or media used)

**Alexander Mordvintsev** – inventor of Google's Deep Dream software, launching an entirely new subgenre of art using neural networks – and transforming how we visualize images in AI.

Inside Deep Dreams: How Google Made Its Computers Go Crazy

Guide to Deep Dream Generator

## Preparations
### Materials/Resources for Teacher

- Slide deck
- Scissors
- Glue stick
- Large sheet of paper

### Materials for Students

- 3 x 3 white paper for each student
- Markers for students

### Safety Procedures

The classroom will have implemented guidelines for conduct during class discussions. The rules will be similar to these recommended by MIT:

- Listen respectfully, without interrupting.
- Listen actively and with an ear to understanding others' views.
- Criticize ideas, not individuals.
- Avoid blame, speculation, and inflammatory language.
- Allow everyone the chance to speak.
- Avoid assumptions about any member of the class or generalizations about social groups. Do not ask individuals to speak for their (perceived) social group.
- We are accountable for our words and their impact.
- Personal information that comes up in the conversation should be kept confidential.

**LEARNING ACTIVITY**

**Getting the Classroom Environment Ready**

- Have all listed materials on-hand and ready to be passed out and used
- Have slide deck ready
- Have Mentimeter.com ready with code for students
- Have classroom iPads charged for any student who might need them

**Procedures for the Teaching/Learning Structure** (*indicate approximate time for each step*)

**Introduction discussion: 10 minutes**

1. Open Mentimeter.com on smart board

2. Students open Mentimeter.com on cell phones or classroom iPads

3. Teacher: "Today we are going to us the studio habit of "Understand Art Worlds" and talk about **AI art.** (show slide) Who has heard about AI art before?" (Students can raise hands)

4. Teacher: "Let's see what your thoughts are about AI art. Type into Mentimeter words that come to mind when you hear the phrase AI art. If you are unfamiliar with it, go ahead and type that."

5. Students spend 1 minute typing in their words/phrases.

6. Teacher-led class discussion on the answers.

7. Teacher: "Okay, let's **define what AI art** actually is…" (slide)

**Activity: 15 minutes**

8. Teacher: "Now let's walk through the process of how AI art is created… to learn this, we are going to do an activity…"

   a. Teacher: "You are all a website. And you have images on your website. Draw a simplistic image of your choice on your papers. This represents an image on your website.

   If you need a prompt, draw something you enjoy doing in your free time, or something from your favorite book or movie.

   This a quick exercise, so don't overthink it."

For 3 minutes, the students will draw a picture with marker on a 3 x 3 piece of paper.

    b. Teacher: "So your website can be indexed and found on by Google's search engine, you need to write a description."

Then they will be given 30 seconds to write 3-5 words to describe the image.

    c. Teacher: "I am an image recognition program **deep learning** program, and I need more knowledge. So, I am going to search the internet for images with alt text descriptions to be able to build my data bank."

The teacher goes around the room collecting the drawings and reading the descriptions.

    d. Teacher: "Okay, I have learned quite a bit of data and have been programed to use this knowledge to create images in an image-to-text model. I need a text prompt for me to create."

A student will say a phrase to the teacher.

    e. The teacher then takes all the images collected and cuts and pastes them onto a new sheet of paper in mixed media way.

    f. Teacher: "Here it is! Your (insert phrase student said)."

**Class discussion: 20 minutes**

9. Teacher: "Okay, based on that activity, how do you think AI image generators work?" Students discuss. Teacher clarifies any misunderstandings, answers any questions.

10. Teacher: "Who do you think should get credit for this artwork and why?

    a. Teacher will guide responses like the artists whose work feed the software, the person who entered the prompt, and the software itself.

11. Teacher: "Technically, no one does. It cannot be copyrighted. Current **Copyright** law state that no one does because the work created by a machine and therefore cannot be protected. Was it created by a machine?

The **fair use doctrine** from 1976 states that portions of copyrighted materials may be used without permission of the copyright owner provided the use is fair and reasonable, does not substantially impair the value of the materials, and does not

curtail the profits reasonably expected by the owner. That is how the AI tools feel they are in the right by collecting the data. However, multiple artists are contesting this."

Teacher shares artists' who feel wronged by these programs.

Teacher shares historical examples of artists like Michelangelo and Andy Warhol, as well as contemporary artists Jeff Koonz and Kehinde Wiley who use other art or designs in their art and who use assistant artists to produce their work.

**Clean-up Procedures** (Room, Materials & Work Storage)

- Gather markers
- Hang "program created" artwork

**Closure, Review & Anticipation** (what's next?)

**Teacher:** "Write or draw a reflection in your sketchbooks about who you think owns or should be credited for artwork."

Next, we will be exploring and testing these AI tools to create images."

**Supplemental Activity**

- Students can research an article or video about AI art and write, draw, video a response to it.

**Teacher reflection focused on the lesson *after* it has been taught**

- Did it seem like the students understood what AI art is?
- Did it seem like the students understood how AI art tools work?
- Were there any opinions already expressed?
- Was there any topic confusion that will need to be addressed?
- Did the students seem engaged in the content?

**Lesson 1 Teaching & Learning materials**

**Slides**
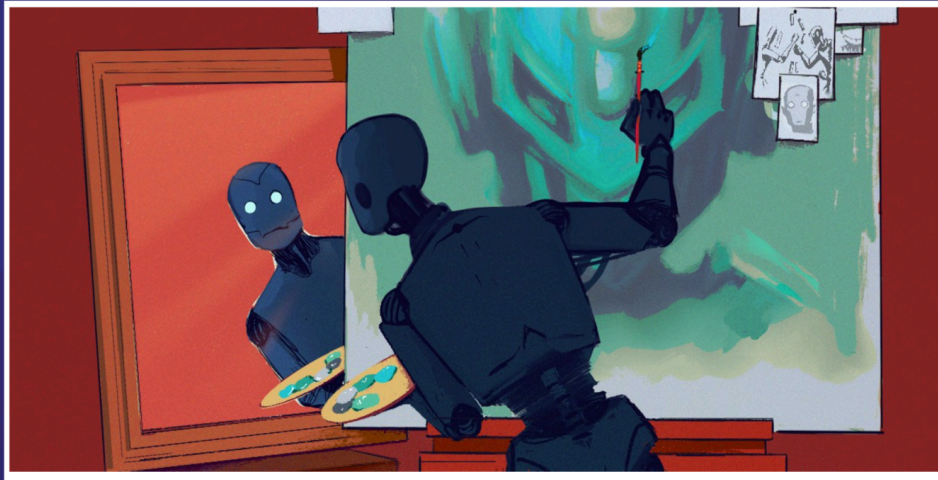
# HUMAN vs. MACHINE

Artificial intelligence and the future of art

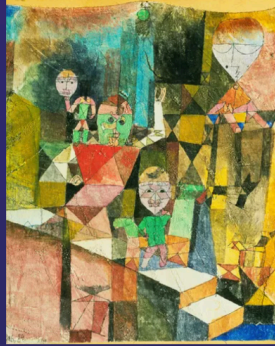# What do you think of when you hear AI art?

# Deep Learning Mode

# What is AI art?

Artificial intelligence art is any artwork, particularly images and musical compositions, created through the use of artificial intelligence (AI) programs,
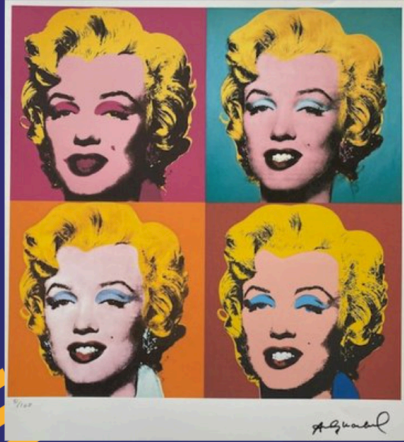
# Image merge

 +  = 

# Kahinde Wiley

# Andy Warhol



# Michelangelo

Jeff Koonz

| LESSON PLAN | |
|---|---|

| Teacher Candidate | Holly Romano |
|---|---|
| School | Dublin Scioto HS |

| LESSON NUMBER | 2 |
|---|---|

| | |
|---|---|
| Lesson Title | Let's do some beta testing |
| Length of Class Period | 50 min |
| Approximate Number of Students in Each class | 25 |
| Grade Level or Course Title | 9th grade – Art 1 Foundations |
| Beginning Date for this *Lesson* | |
| Ending Date for this *Lesson* | |

## CONTENT STATEMENT – CREATING (CR) (FROM 2022 ODE STANDARDS)

**HSP.1CR** Evaluate various sources for visual reference.

**HSP.4CR** Determine and apply what it means to create and share works of art ethically.

## CONTENT STATEMENT – PERFORMING (PE) (FROM 2022 ODE STANDARDS)

**HSP.2PE** Demonstrate increasing skill with materials and techniques.

## CONTENT STATEMENT – RESPONDING (RE) (FROM 2022 ODE STANDARDS)

## CONTENT STATEMENT – CONNECTING (CO) (From 2022 ODE Standards)

## Performance-based Assessment Objectives

- Do the students know how to use the AI tools?

## Performance-based Assessment Strategies
(attach assessment documents if applicable)

Formative
- Teacher walks around the room observing and offering support where needed

Summative
- [Google form](#) for artwork submission and reflection

## Academic Language
## Vocabulary

- **Prompt** – a text phrase or list of words that are used to request an image creation

- **Resource image** – an image that is used to support artmaking

## Additional Language Demands (*specific* communication task)

- Oral discussion about using AI tools

- Written reflection and submission form

**Accommodations for Special Populations**
- Text-to-speech support for creating prompts

**Art/Visual Culture Examples**

- **NightCafé** – text-to-image model AI software

- **Deep Dream** - a computer vision program created by Google engineer Alexander Mordvintsev that uses a convolutional neural network to find and enhance patterns in images via algorithmic pareidolia, thus creating a dream-like appearance reminiscent of a psychedelic experience in the deliberately overprocessed images

- **Pikazo** – image merge model AI software

**Preparations**

Materials/Resources for Teacher

- Slide presentation

- Deep Dream software

- Night Café software

- Pikazo software

Materials for Students

- Cell phones, Chromebooks, iPads, Computers to use to create AI art

- Handouts with access information for the software programs

Safety Procedures

- Reminder of web search etiquette for school — research purposes only, use only allowed websites

- Reminder to follow proper image creation guidelines — no nudity, violence, weapons, racism, sexism, homophobic, anti-LGBTQA+

**LEARNING ACTIVITY**
**Getting the Classroom Environment Ready**

- Handouts set out
- Sketchbooks set out

**Procedures for the Teaching/Learning Structure** (*indicate approximate time for each step*)

**DAY 1**

**Introduction – 15 minutes**

1. Teacher: "Last class we learned about AI art — what it is and how it's made. Today we are going to experiment and create with AI tools."

2. Teacher: "Let's briefly review the history of AI in art so we understand it's development.

   Imagine manipulation programs began in 2015 with **Alexander Mordvintsev** and his program **Deep Dream** he created as a passion project while working at Goggle. Mordvintsev reprogrammed image recognition programs to instead create images that didn't exist, using the analyzed data from that image (Levy, S. 2015).

   (Teacher shows Deep Dream in action)

   After that data knowledge and program was publicly released, multiple companies used it to create photo merge apps, like **Pikazo, PortraitAI**, and **StarryAI**, that would transform user photographs into stylized versions based on famous artists or uploaded reference photos the software could analyze.

   Then came the **text-to-image model** software versions like **Artbreeder, Dalle-E, Night Cafe,** and **Midjourney** which work like activity we did in class yesterday. Users enter word/phrase prompts and specific parameters such as an aesthetic or artist style and then the program generates images based on its data knowledge."

**Activity - 30 minutes**

3. Teacher: "We are going to try out both picture merge and text-to-image models together first, and then you will be free to do it on your own.

   I am going to demonstrate **Pikazo** to merge images and **Night Cafe** to create a new image. Once you see how they work, you will be able to use them."

The teacher will guide them step by step through each program using the smart board. The students will be free to ask questions during this process. They also have their sketchbooks to take notes.

**DAY 2**

**Introduction – 10 minutes**

1. Teacher: "Yesterday we walked through **Deep Dream** and **Night Cafe** together. How did you all feel about them? Are there any lingering questions?"

2. Time for questions and comments

**Activity/worktime – 35 minutes**

3. Teacher: "Okay, so now that you all understand how to use the software, we are going to get started on using them for your assignment. We are going to "**stretch & explore**" today and "**develop craft**" as we use these new tools.

   You will spend the rest of class trying out these AI software tools. I encourage you to share with your peers what you have made and support each other through this experimental process.

   Make as many AI art images as you want. By the end of class tomorrow, you will need to turn in 4 images you rendered, with at least one from each program. Keep good notes about the **prompts** you used or **source images** you used to create them because I will be asking you about that when you turn them in.

   Remember to use appropriate online searches and stay within the guidelines of what types of imagery that is appropriate in the school art room."

4. Students work on assignment.

**DAY 3**

**Introduction – 15 minutes**

1. Teacher: "Yesterday you all were able to experiment with the AI art software. How did that go? Any reactions to it? Any questions?

2. Students have time to openly discuss.

3. Teacher: "Today you are all going to continue working. Reminder, you will need four images to turn in, with at least one from each program. You will need to tell me which

program and what resource images and/or prompts you used to make it on your reflection form.

I have created a [Google form link](#) in the virtual classroom for you to turn in your assignment.

4. You should be finished with your images by (time) to allow 15 minutes for you to upload your assignment and fill out the reflective questions.

**Artmaking – 20 minutes**

**Wrap-up – 15 minutes**

5. Teacher: "Okay, everyone should be wrapping up and starting to work on your Google form to turn in your assignment. You can raise your hand or ask your peers if you have questions about using the form.

6. Students complete forms.

**Clean-up Procedures** (Room, Materials & Work Storage)

- Students close out programs and put away their sketchbooks.

**Closure, Review & Anticipation** (what's next?)

**Teacher:** "Tomorrow you will do an experiment to support your understanding of AI art versus human-made art."

**Supplemental Activity**
Students can find a poem or song they like and create an AI image that they feel would go along with it.

**Teacher reflection focused on the lesson *after* it has been taught**

- Did the students understand how to use the software? Did they struggle? Do they need additional support?
- Are they engaged in creating using the AI tools? Do they enjoy using them?

**Lesson 2 Teaching & Learning materials**

- Night Café

- Pikazo
- [Google form for assignment](#)

**[Slides](#)**



Beta Testing



Alexander Mordvintsev

Deep Dream

# Pikazo

**JOIN THE ART WORLD, NO BERET NEEDED.**

Find it. Merge it. Feed your art addiction!
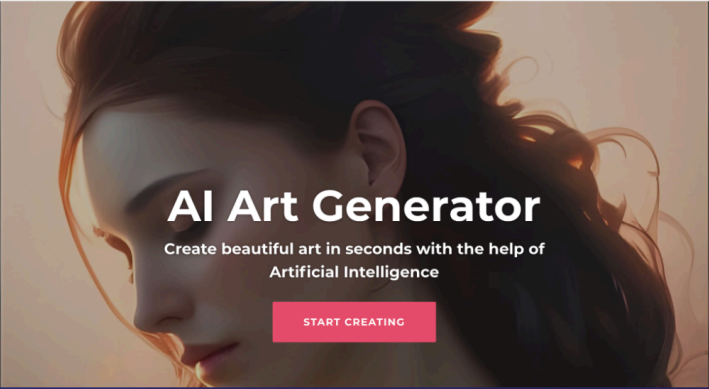Pikazo uses AI to combine any two images into a new work of art.

# Night Café

**Start Creating AI Art on NightCafe Now →**

## AI Art Generator

Create beautiful art in seconds with the help of Artificial Intelligence

START CREATING

| LESSON PLAN | |
|---|---|
| Teacher Candidate | Holly Romano |
| School | Dublin Coffman HS |

| LESSON NUMBER | 3 |
| --- | --- |
| Lesson Title | Human vs. Machine |
| Length of Class Period | 50 |
| Approximate Number of Students in Each class | 25 |
| Grade Level or Course Title | 9th grade – Art 1 Foundations |
| Beginning Date for this *Lesson* | |
| Ending Date for this *Lesson* | |

**CONTENT STATEMENT – CREATING (CR)** (FROM 2022 ODE STANDARDS)

**HSP.1 CR** Evaluate various sources for visual reference.

**HSP.2 CR** Explore multiple solutions to artistic problems.

**HSP.4 CR** Determine and apply what it means to create and share works of art ethically.

**CONTENT STATEMENT – PERFORMING (PE)** (FROM 2022 ODE STANDARDS)

**HSP.1 PE** Determine appropriate levels of artisanship through persistence.

**HSP.2 PE** Demonstrate increasing skill with materials and techniques.

**CONTENT STATEMENT – RESPONDING (RE)** (FROM 2022 ODE STANDARDS)

**HSP.3 RE** Utilize art criticism methods when responding to works of art.

**CONTENT STATEMENT – CONNECTING (CO)** (From 2022 ODE Standards)



**Performance-based Assessment Objectives**

- Students know how to create a sculpture based on a provided prompt.
- Students can reflectively compare creating an AI art piece to creating a human-made art piece.

**Performance-based Assessment Strategies**
(attach assessment documents if applicable)

Summative

- Students turn in a completed AI art and sculpture piece under the same theme.
- Students write out a reflective statement comparing the experience of creating the two pieces.

**Academic Language**
**Vocabulary**

- **Sculpture** – the art of making three-dimensional representative or abstract forms
- **Three-dimensional** – having or appearing to have length, breadth, and depth.
- **Abstract** – not intended to present an accurate depiction of the physical appearance of people or things.
- **Representational** – relating to or denoting art which aims to depict the physical appearance of things

**Additional Language Demands** (*specific* communication task)

- Oral discussion as a class
- Written reflection

**Accommodations for Special Populations**

- This project is open-ended, so students can work in the medium they prefer or feel most comfortable using.

**Art/Visual Culture Examples**

- [Mike Conlen](#) – abstract sculpture artist
- [Tanda Francis](#) – representational sculpture artist

**Preparations**
Materials/Resources for Teacher

- [Slides](#)

Materials for Students

- Sketchbooks
- Art materials for sculpture project

Safety Procedures

- This lesson will be taught towards the end of the trimester that the students are taking the class, so they are knowledgeable on all the proper safety and handling requirements for the available art tools and mediums in the classroom.

## LEARNING ACTIVITY
### Getting the Classroom Environment Ready

- Making sure all computer/iPad equipment is ready if needed.
- Making sure each supply/medium station is ready for students to utilize.
- Set out sketchbooks.

### Procedures for the Teaching/Learning Structure (*indicate approximate time for each step*)

**Day 1: Introduction 15 mintues**

1. **Teacher:** "You all are experienced in making art with your own hands, also known as **human-made art**. And now, you are also experienced in using AI tools. So let's compare the two.

   You will all create art with the prompt "The future of art" — two versions, one as **3D** human-made art, and one as 2D AI art.

   First, you will make your human-made piece as a 3D sculpture. Can anyone remind us what 3D art means? (shows slide after answer)

   Your sculpture can be **representational** or **abstract**. Who remembers what those words mean? (shows slide after answer)

   You can choose any material (except clay) to make your sculpture. I have the stations prepared for you.

   Your art must speak to the prompt "The future of art" — this can be what you think it will be and/or what you hope for it to be. We are going to spend the next two classes working on these pieces.

   And, just like artists, we are going to brainstorm and sketch out ideas to help us **envision** before we begin working on our final piece. You can also **stretch and explore** if you need to test out some new ideas.

When you are ready, you can move on to making your final piece. I will be walking around the room to observe and give support where needed.

Any questions?

Okay, go ahead and begin."

2. Student work time (30 minutes)

**Day 2**

1. Teacher reminds students of goals of project and mentions that they should be starting on their final piece today. (5 minutes)

2. Student work time (40 minutes)

**Day 3**

1. Teacher reminds students of goals of project and mentions that they need to finish their projects by the end of the next class period.

2. Student work time (40 minutes)

**Day 4**

**Introduction: 15 minutes**

1. Teacher: "Everyone needs to be finished with their sculptures today. When you are done, you can move onto your AI art piece.

   I am going to introduce you to **Midjourney**, a text-to-image model, much like Night Café, but more robust. For those of you who would like to dig deeper into AI image creation, Midjourney is a great next step."

2. Teacher walks students through using Midjourney (it's very similar to Night Café, just more bells and whistles).

**Artmaking: 30 minutes**

3. Students wrap up sculpture work and begin working on AI art project.

**Day 5**

**Introduction: 10 minutes**

1. Teacher: "Today you all need to finish your AI art pieces. Remember, this is the same theme as your sculpture 'The future of art.'"

   When you have completed your work, I have a Google form in the virtual classroom for your artist statement and reflection comparison.

**Artmaking: 35 minutes**

**Clean-up Procedures** (Room, Materials & Work Storage)

- Students will stop working, store their projects, clean up their areas, and return their sketchbooks.

**Closure, Review & Anticipation** (what's next?)

- **Teacher:** "Instead of Human vs. Machine, can we say Human + Machine? Can you think of ways these AI tools might be able to support artists?"

**Supplemental Activity**

Research one artist who is using AI to support or enhance their artmaking.

**Teacher reflection focused on the lesson *after* it has been taught**

- Were students engaged in this lesson? Were there any struggles?
- How did they feel about AI art in the end?

**Lesson 3 Teaching & Learning materials**

**Slides**

# Human vs. Machine

## Sculpture

### Representational

*"Rockit Black"*
by
Tanda Francis

### Abstract

*"Wingman"*
by
Mike Conlen

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