A Virtual Reality Twist on Paintings

Year level: Year 8 and Years 9-10

(please note students must be 13 years or older to use Oculus Quest)

Image: Wikipedia, Van Gogh "Starry Night", 1989

Summary

In this lesson, students take a classic well-known painting and put a virtual reality twist on it with their own interpretation.

Students work in groups to view artwork and then design and plan their own which they create in the Tiltbrush application. Tiltbrush is a VR experience that enables users to create and design in a 3D immersive environment with a VR headset.

Required Resources

1. Virtual Reality headset with Tiltbrush installed, such as Oculus Quest. https://www.oculus.com/experiences/quest/2322529091093901
2. A Poly Account at https://poly.google.com (This should match the Tiltbrush account that is logged in to share sketches). A desktop computer will be required if viewing creations on Poly. However, creations can be saved as sketches to Tiltbrush and viewed in VR.
3. Coloured pencils and paper for sketching.
4. A museum visit, books about artwork or a website (e.g. artsandculture.google.com/explore) where students can look for examples of art.
5. Access to computers/shared screen with Internet to view a video "Tiltbrush Artists in Residence" https://www.youtube.com/watch?v=LBJPIgNXUDI and/or examples of Tiltbrush artwork selected from here: https://www.tiltbrush.com/air
6. [Optional support] Access to Tiltbrush Tutorial Video Guides: youtube.com/watch?v=GdfEnmpdYzI or Website instructions: support.google.com/tiltbrush/answer/6389712

Suggested steps

The following are some suggested steps to implement the lesson.

PART 1

1. **Experiment in Tiltbrush.** It is recommended that students are exposed to the Tiltbrush environment prior to engaging in an activity brief so they understand the environment and the possibilities. Provide a short amount of time each (e.g. 5 mins) for students to explore the various colours and paintbrush textures by drawing and decorating their name.

2. **View a video of artists using Tiltbrush.** Following some experimentation with VR, the class views the video by Google "Tiltbrush Artists in Residence". *Google has been working closely with more than 60 artists to help them explore their style in VR as part of the Tilt Brush Artist in Residence program (AiR). Coming from a wide range of disciplines, these graffiti artists, painters, illustrators, graphic designers, dancers, concept artists, creative technologists and cartoonists have all brought their passion and talent to create some art with Tilt Brush and provide feedback on the tool.*
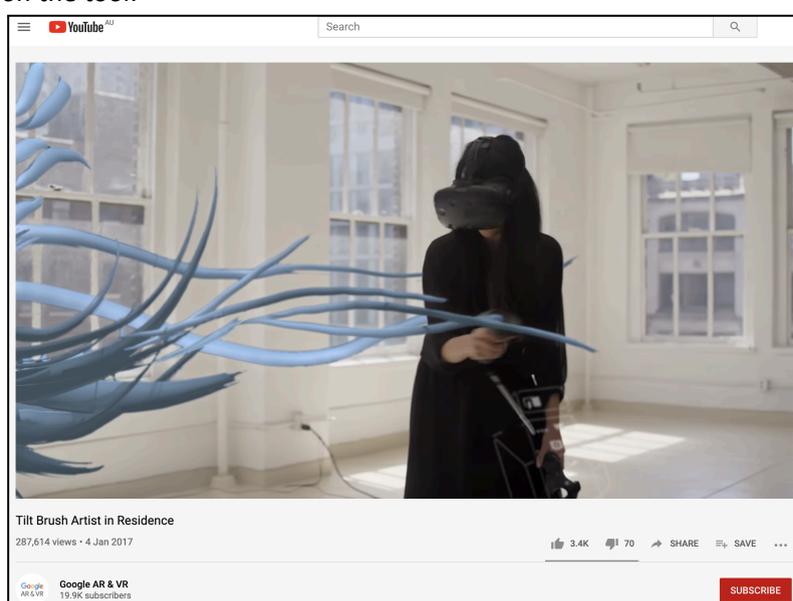
Video link: youtube.com/watch?v=LBJPIgNXUDI

Following the video, students think about and prepare responses for discussion to some of the questions (or those defined by the teacher).

- What are some of the differences between 2D and 3D artwork identified by the artists?
- How are artists describing what it is like to draw in Tiltbrush? How would you describe it to someone who has never experienced it before?
- One of the artists stated that "As we get new creative tools, we are also going to have ways in which to redefine our own role as creative beings". In what ways does VR redefine the work or potential of artists? What are other creative technologies and tools that have changed how artists can create?
- What creative industries might benefit from VR tools like Tiltbrush?

PART 2

For the following lesson sequences, we are building on the quote in the video: *"As we get new creative tools, we are also going to have ways in which to redefine our*

own role as creative beings" - Artist, Google Tiltbrush Artists in Residence.
Students are going to select an artwork (Picasso, van Gogh, Klimt, etc) and use the painting as inspiration to create a VR version. The painting should reflect features and themes of the original but be the students' own unique version of artwork.

3. **Select a Classic Artwork.** Students form teams (e.g. 3-4 students). They explore classic artwork and select one that they are going to use as inspiration for a VR version. A site such as Google Arts and Culture may provide a useful resource for ideas for finding artwork artsandculture.google.com/explore Alternatively, library books or a visit to an art gallery could provide inspiration. Students research their selected artwork to understand more about it and the creator (this becomes part of their presentation information).

4. Students create a "vision board" for their selected artwork design (e.g. using Google Slides or other collaborative platform), collecting images, colour palettes, inspiration and information that capture the essence of the original artwork but with a unique twist.

Example vision board for Starry Night Sky

5. Using their vision board, collaboratively students create a sketch design of their concept on paper. Students add layers, introducing colours and texture ideas. Students annotate their sketch to include notes and points that help them in their creation process.

6. Once students have created their sketch design, they begin to create their VR design using the Tilt Brush app. Students select "New Sketch" from the

Tools menu on the palette to begin a new artwork.

It is recommended that students are in Advanced Mode rather than Beginner Mode which can be switched in the Tools Menu on the palette.

Encourage students to make use of the various paintbrushes, textures and colours. Please let students know that this is an artwork to present a conceptual idea and it may not be perfect (it's quite a complex thing to paint in 3D!). Marking should be primarily based on conceptual design and detail, in addition to supporting report, planning documents or presentations.

As part of the creation process, have students make note of the paintbrushes and features they use to recall easily for their presentation.

Please note it is recommended that students spend no more than about 15 minutes at a time in a VR headset. Encourage students to swap regularly and work in teams, with one documenting processes and another providing guidance based on planning documents. As this is a shared art project it would be good to also discuss good practices (and how to overcome possible challenges) when creating a shared artwork.

Saving artwork: While painting, you can save your sketch to avoid losing changes. Navigate to the "Tools" panel in the palette, and select the "Save" icon. Take a snapshot of your sketch to use as a thumbnail image. Your sketch is now added to your Sketchbook.

7. **Upload Artwork:** Once students have completed their artwork, they can upload it to Poly to be viewed and shared by others. Go to the "Tools" panel on the palette. Select "Upload".

a) Once the upload is complete, it will appear on the Poly Account of the user that was signed in. Log into Google Poly at www.poly.google.com. Once logged in, click on the three horizontal lines next to "Poly" on the top left-hand corner. Navigate to "Your Uploads".
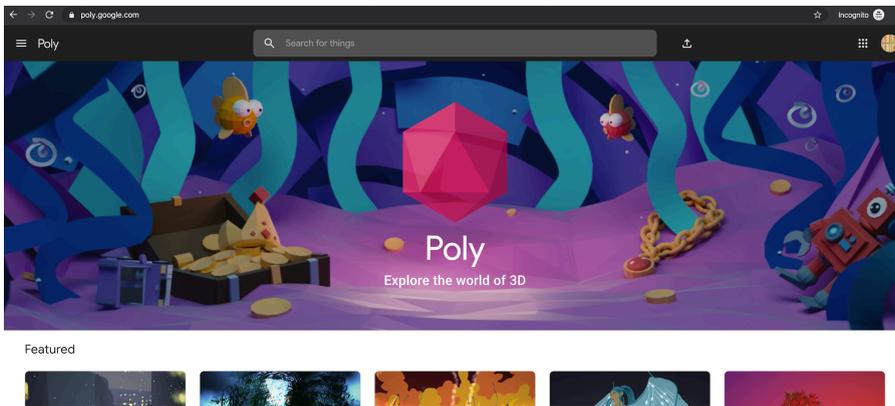
b) You will see all your Tiltbrush to Poly uploads here. You can "Publish" if you wish, however, please note that this goes to public viewing. You may like to keep this private and share with the class as unpublished. Taking "screen-captures" is another way around saving and sharing work without publishing to Poly.
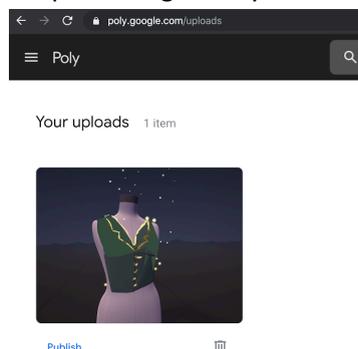
Example upload in Poly

c) Students can click on their creation and navigate around the object using their mouse and by clicking to rotate around the artwork and zooming in and out.

8. Students collaboratively prepare a presentation or record a video presentation that describes their original artwork inspiration in detail (artist, techniques used, era, etc) and their new VR design motivation and underpinning concept. Students also explain their collaborative design process and the digital materials used to achieve their goal. Students reflect on the success of their VR artwork in line with their design goals.

Why is this relevant?

Students learn about how Virtual Reality (VR) and other new technologies are transforming and providing new opportunities for artists. This lesson demonstrates cutting-edge practices in harnessing digital technologies for various design processes across creative industries (e.g. comics, animation, more).

In this activity, students are engaging Computational Thinking skills and knowledge in order to break down their problem (a character costume) and plan an appropriate solution. Students are using design documents, project management, teamwork and planning in order to build their VR creation.

Assessment

For this activity, students collaboratively prepare an oral presentation or video presentation and viewing of their completed VR artwork. In their presentation, ask students to address specifics such as their:

- Artwork title
- Artwork motivation/concept (including original artwork description)
- Description of 3D art materials used
- Process of 3D art techniques used
- Process of the technical design and development, including collaboration process
- Screen captures and/or a link to the final artwork in Poly.
- Any identified challenges and how they were resolved

Students can be provided with feedback from peers and the teacher. As well as a self-evaluation. Students should address, not only the art development but also the technical design and development.

Checklist	Yes/No/Partially	Comments
Students describe applied techniques and processes when making their VR artworks.		
Students demonstrate project planning processes (in the form of sketches and documents) for the design and development of their artwork.		
Students explain how the design of their artwork, particularly with the use of VR, enhances meaning for an		

audience.		
Students explain their intention behind the motivation of their artwork and use of materials to support their intention.		
Students demonstrate effective collaboration skills, including teamwork and co-management of the project.		

For further advice, examples and support around assessment please visit the Digital Technologies Hub at digitaltechnologieshub.edu.au/teachers/assessment.

Curriculum links

Links with the Technologies curriculum area

Year band	Learning area	Content description
Years 7-8	Design and Technology	Use project management processes when working individually and collaboratively to coordinate production of designed solutions (ACTDEP039)
Years 9-10	Design and Technology	Develop project plans using digital technologies to plan and manage projects individually and collaboratively taking into consideration time, cost, risk and production processes (ACTDEP052)

ADD Links with other curriculum areas

Year band	Strand	Content description
Years 7-8	The Arts - Visual Arts	Develop planning skills for art-making by exploring techniques and processes used by different artists (ACAVAM120)
Years 9-10	The Arts - Visual Arts	Plan and design artworks that represent artistic intention (ACAVAM128)