Art in AI-motion

Subject: English as a Second Language. It can be easily developed in a Learning Scenario along with Music, Art and Technology.

Age: 12-18 years old

Time: 3-4 periods of 50 minutes

Topics: Art and creativity, Generative AI, Data Collection

1) GOALS

-To be able to talk and write in English about basic artistic features in Vassily Kandinsky's paintings, and their partners' artistic production.

-To understand and experience the concept of synaesthesia as a means of broadening the artistic experience, both as spectator and as a creator.

-To create or recreate an artistic work by using synesthetic awareness

2) MATERIALS

-computer connected to a whiteboard. Optional: students use their own tablets, mobiles or laptops in the classroom

-paper, crayons, ruler, drawing compass, blue tag or cello tape

-AI applications: Mentimeter, Chrome Music Lab, The Kandinsky Chrome Music Lab, Genially, Google or Microsoft Forms. If the Technology subject gets on board, students could develop their own code activity related to this topic using Scratch, for example.

3) STEPS and CONTENT of the ACTIVITY

PART 1

Skills: AI in practice, listening, speaking, writing

Time: 20 minutes

1.1. Students will be asked to get into the AI tool mentimeter.com where they will associate colours to emotions:

COLOURS: blue, yellow, green, red, orange, violet

EMOTIONS: sorrow, joy, peaceful, vital, joy, coolness

1.1. The data resulting will be shared and debated in the classroom: Do we all associate the 6 colours to the same emotions? Why?

1.2. Students will write down the six pairs they have made on their notebooks for future use. Ex: violet-sorrow

PART 2:

Skills: AI in practice, listening, drawing, reading, writing

Time: 30 minutes

2.1. In groups students will select 4 paintings by Vassily Kandinsky and make a chart with two columns with the drawings and names of the shapes and types of lines most frequently used by the painter (20 minutes)

Possible answers: square, rectangle, circle, check board, triangle, thin/thick line, lines strokes, wavy/curved line, vertical/horizontal line, parallel lines, diagonal lines…

Shapes, lines drawings and their spelling will be assessed by the whole class assembly.

2.2. Individual work: Students will be asked to go back to mentimeter.com where the basic shapes with feelings: will associate colours to emotions:

SHAPES: circle, triangle, square

FEELINGS: spiritual, aggressive, calm

2.2. Pair work: Touch dictation. The teacher will dictate the vocabulary gathered about shapes and lines (see Possible answers in 2.1.) while one student will "paint" it on the back of their partner (2 minutes).

Afterwards, they swap and while one is drawing on the other's back, this one has to name the shape or line drawn (4 minutes). This activity is meant to ensure the students' knowledge of the vocabulary for further use by using sound, touch, and voice.

2.3. Drawing dictation: Individually, students will be asked to draw (on their laptops, tablets or on a A3 piece of paper) the following instructions dictated by the teacher (3 minutes). They will colour them according to the associated emotions in Part 1.1.

"Draw one big circle in the middle. There are three small triangles. There is one medium size square on one of the corners of the paper. Draw a check board on one side and three long vertical lines on the other"

PART 3:

Skills: reading, drawing, writing and AI in practice

Time: 50 minutes

3.1. Students will read this information provided by the teacher, or they can be asked to look for the information concerning his synesthetic abilities regarding colours, shapes, emotions and musical instruments.

"Russian painter Vassily Kandinsky (1866-1944) explained his artistic work in his books: Concerning the Spiritual in Art and Point and Line to Plane.

He had synesthetic abilities, meaning that he could perceive things through their senses in an unusual way. Kandinsky saw colours when he heard music and he heard music when he was painting. In his paintings Kandinsky associated colours, shapes, lines and strokes of paint to emotions and musical instruments.

-Blue evokes coolness, and something deep, innermost, or supernatural. Linked with flutes for bright blues, and cellos and organs for darker blues.

-Yellow read joy, warm and thrilling. Associated with trumpets.

-Green feel still and peaceful but with a resonant under layer of strength. Associated with a soft violin sound.

-White evokes a silence rich with possibilities.

-Black is a hopeless abyss of silence.

-Grey shades represent immovability or something unchanging.

-Reds are vital and strive towards goals. Also associated with trumpets and tubas.

-Brown represents dullness, hardness, and repression.

-Orange feels healthy and bright. Associated with alto singers and mid-range church bells.

-Violets represent sorrow; associated with the English horn and the bassoon.

As for the shapes Kandinsky was most interested in were the circle, triangle, and the square. He thought the triangle showed aggressive feelings, the square, calm feelings, and the circle, spiritual feelings."

3.2. At this stage, students will compare and this information about Kandinsky and their own associations between colours-emotions and shapes-feelings. It may also be useful to organize all the information learnt about Kandinsky and their own associations in a chart –Excel spreadsheet or other kind of chart or mind map- for future use.

3.3. Pair work: Students will get into AI application: The Kandinsky Chrome Music Lab https://musiclab.chromeexperiments.com/Kandinsky/ and use it at leisure. They will play and experiment with it for 3 minutes each.



Afterwards, they will answer the following questions on their notebooks. They can replay the game while answering them.

a. What happens when you draw in the Kandinsky experiment?

Answer: In the Kandinsky Chrome Music Lab experiment, everything you draw turns into sound

b. How can you change the instrumentation?

Answer: You click on the bi-coloured circle at the bottom of the screen, choose a colour and you will hear different instruments.

c. Draw these 3 basic shapes -squares, triangles and circles- associated to sounds by the The Kandinsky Chrome Music Lab and complete this sentence:

_____ sound like percussion, _____ have musical pitches, and _____ grow eyes and a mouth and produce vocal sounds.

Answer: Triangles sound like percussion, squares have musical pitches, and circles grow eyes and a mouth and produce vocal sounds.

d. Why is this experiment called after the Russian painter Vassily Kandinsky?

Answer: This AI associates painting to music. It illustrates Kandinsky's synaesthesia in a fun and creative way.

PART 4:

Skills: reading, listening and AI in practice

Time: 25 minutes

"Play a Kandinsky" is an experiment resulting from the collaboration between Google Arts and Culture and The Centre Pompidou with the help of machine learning: https://artsandculture.google.com/experiment/play-a-kandinsky/sgF5ivv105ukhA

Experts in Kandinsky’s works, musicians and digital artists give us the chance to experience the intersection of sound, colour and shapes in Kandinsky’s Yellow Red Blue (1925) painting.

The “Play a Kandinsky” experience has 4 parts which will be carried out along the lesson in this way:

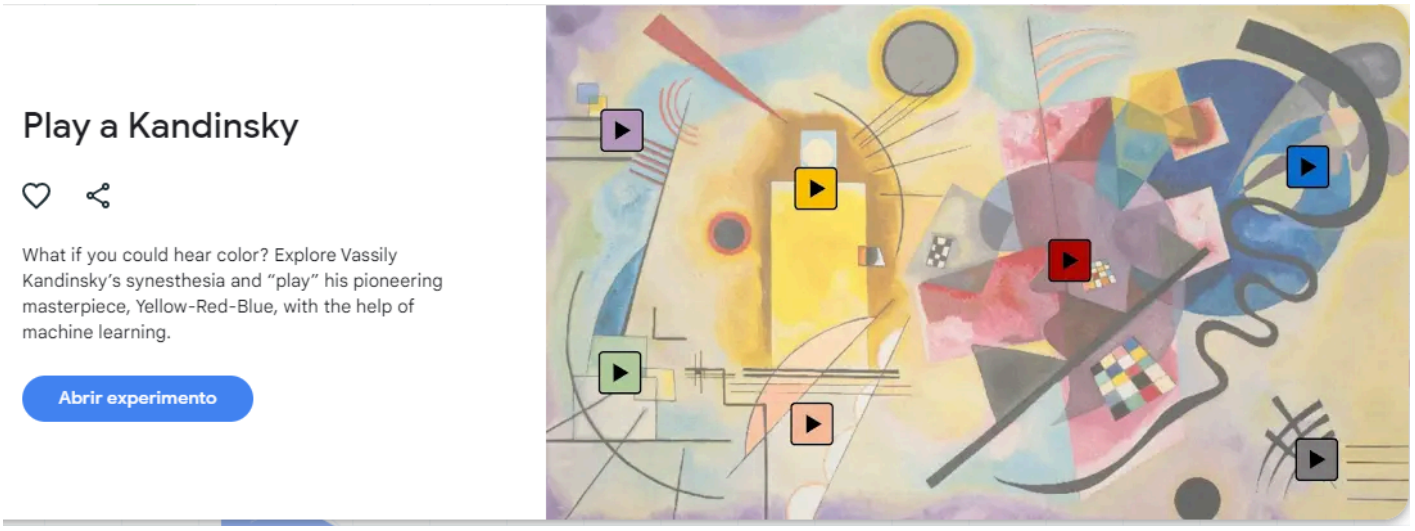
The whole class will explore parts 1 and 2 by playing it on the whiteboard while taking notes on their notebooks.

In part 1, “Kandinsky”, students will learn about Kandinsky's theories on colour and sound and the relationship between shapes in motion (3 minutes). In part 2 “Colour/Shape”, they will listen to the composed version of the painting created with help from machine learning (2 minutes).



Parts 3 and 4. Individual work.

In part 3 each student will play and hear the painting by clicking on the given prompts activated in the painting. They will discover the emotions Kandinsky associated with colour and shape and “play” his pioneering masterpiece, Yellow-Red-Blue, with the help of machine learning. (10 minutes)



In part 4 they will create and share their own musical mix of Kandinsky’s painting by highlighting the emotions of their choice as inspired by the painter (10 minutes).

PART 5:

Skills: AI in practice, speaking or writing

Time: 25 minutes

As we have seen, Kandinsky felt that he could express feelings and music through colours and shapes in his artworks. For example, he thought that yellow created the crisp sound of a brass trumpet. The shapes he was most interested in were the circle, triangle, and the square. He thought the triangle showed aggressive feelings, the square, calm feelings, and the circle, spiritual feelings.

4.1. With the help of the charts and the notes the students have been elaborating along the lesson they will now create their own synesthetic work of art using https://app.genial.ly/dashboard

They will be given the choice of uploading the painting they created in Part 2 (2.2.) or to one of Kandinsky's one of Kandinsky's paintings to the AI app https://app.genial.ly/dashboard . Students will link shapes, colours and lines to sounds and musical instruments according to the emotions or the narrative they want to express, making the paintings synesthetic in Kandinsky's way.

4.2. Students will be asked to swap their creations and they will orally provide formative assessment to their peers.

4) ASSESSMENT

-Formative assessment will be carried out along the whole activity by means of oral interaction. For example, teacher, for example asking for reasons to support their statements. The artistic outcome, the oral or written explanation of it and their opinion about Kandinsky's works of art will be assessed according to the prompts of the activity.

-Peer formative assessment to reflect upon the works of art produced. As a classroom, they will have learn to give formative assessment from the very beginning, providing examples on how to do it in a polite and constrictive way.

For instance, in the final stage of the mini lesson, I will present explain orally my own painting and will ask them to think something good about it, then something I could have done better -or in another way according to the instructions- and finally something they like about it. In groups of three they will agree in the final 3 sentences to assess my work of art they will share it with the rest of the class. Then, they will be ready to assess their partners' production.

-Finally, students will assess the whole activity in groups of four: they will be asked if they have liked it by scoring it from 1 to 4 and in which ways it can be improved in terms of teacher performance, content delivery and language learning. They will carry it out by means of a Google or Microsoft Forms and the results will be shared and commented in class group. The data will be used to improve the activity.

5) WEBLIOGRAPHY AND EDUCATIONAL RESOURCES used in this mini lesson and for further development

5.1. AI apps used

Mentimeter or Kahoot

Chrome Music Labhttps: //musiclab.chromeexperiments.com/Kandinsky/

https://artsandculture.google.com/project/kandinsky?hl=es

https://app.genial.ly/dashboard

Google Forms or Microsoft Forms

5.2. About Vassily Kandinsky

https://www.musicconstructed.com/tool/chrome-music-lab-kandinsky/

https://sites.google.com/education.nsw.gov.au/tau-cc-world-of-kandinsky/lesson-2-kandinsky-abstract-shapes

https://www.documenta-bauhaus.de/en/narrative/476/primary-colors-and-shapes-at-the-bauhaus#:~:text=According%20to%20Kandinsky%2C%20the%20color,was%20also%20perceived%20as%20warm.
https://hyperallergic.com/481608/sounds-vasily-kandinsky-tony-frazer-shearsman-books/

5.2. Educational resources about Vassily Kandinsky and his painting Yellow Red Blue (1925)

https://mediation.centrepompidou.fr/education/ressources/ENS-Kandinsky-jaune-rouge-bleu/ENS-Kandinsky-jaune-rouge-bleu-part1.html

https://mediation.centrepompidou.fr/education/ressources/ens-kandinsky-jaune-rouge-bleu/ens-kandinsky-jaune-rouge-bleu-part2.html

https://www.musicconstructed.com/tool/chrome-music-lab-kandinsky/

https://coloringhome.com/kandinsky-coloring-pages

https://artsandculture.google.com/usergallery/color-how-it-changes-the-mood-in-art/XgKSfPrv2f5sIQ

https://www.goethe.de/resources/files/pdf237/sff-activity_colour-my-emotions.pdf

https://www.ladykflo.com/yellow-red-blue-1925-by-wassily-kandinsky/

Mestre a casa - - ▲ KANDINSKY (gva.es)

https://asoundmind.edublogs.org/2021/03/07/kandinsky-the-color-of-music/
https://en.wikipedia.org/wiki/Chromesthesia

https://sites.google.com/education.nsw.gov.au/tau-cc-world-of-kandinsky/lesson-2-kandinsky-abstract-shapes

https://blocs.xtec.cat/artsandcrafts2016/2020/09/13/unit-1-lines-and-shapes-2/

5.3. Videos

https://youtu.be/rLXYILcRoPQ
https://www.youtube.com/watch?v=aMiiKLyIR88
https://www.youtube.com/watch?v=Kr0vaS_Gmwk
https://www.youtube.com/watch?v=wI7Khz_2ZcU
https://youtu.be/L-h6wQ2rP4M
how to put music on a Kandinsky painting - Buscar con Google