TUTORIAL 01

Why combine art and science?

TEACHER / YOUTH FACILITATOR RESOURCE • Ages 12–20 • Suggested session: 35–45 minutes

1. About the video

In this one-minute video, the speaker explains why art and science belong together in education. Art brings creativity, emotion and imagination; science contributes rigour, method and an understanding of the world. The speaker illustrates this with two examples: representing the water cycle through painting, sculpture or a 3D model, and composing music to explore sound waves. Combining the two approaches can support memory, reflection, engagement and inclusion. The activities below are teaching extensions inspired by the video.

2. Learning objectives

- Explain the complementary roles highlighted in the video: imagination, emotion and creativity in art; rigour, method and understanding in science.
- Describe how an artistic representation can help learners engage with and remember a scientific concept.
- Create an artistic representation of a scientific process, such as the water cycle or sound waves.
- Discuss how combining art and science may make learning more inclusive, memorable and engaging.

3. Key ideas

The video contrasts and connects two contributions to learning: art can release creativity, emotion and imagination, while science brings rigour, method and explanations of the world. The speaker argues that combining them can transform learning: a painting, sculpture or 3D model of the water cycle may support understanding and recall; a musical composition about sound waves can offer another entry point into physics. Different forms of expression may also help more learners feel included. These are educational possibilities described by the speaker, not experimentally demonstrated outcomes in the video.

4. Suggested learning sequence

Stage	Time	Facilitator guidance
Watch and notice	5 min	Play the video. Ask learners to note one contribution of art and one of science mentioned by the speaker.
Compare approaches	10 min	In pairs, discuss the speaker's examples: a visual model of the water cycle and music based on sound waves. What could each teach?
Observe and create	15 min	In small groups, choose one option: draw or build a scientifically labelled water cycle; or create a short

		rhythm and explain how its sounds arise from vibrations.
Share and reflect	10 min	Share the creations. Ask what is scientifically accurate, what the artistic choices add, and how the activity might include different learners.

5. Materials

Video playback device; paper; pencils or coloured markers; optional modelling clay or recycled materials. For the sound activity, optional simple sound sources (e.g. a rubber band or a small percussion instrument). No specialised laboratory equipment is required.

6. Questions for discussion

- How might a painting or 3D model help someone understand the water cycle?
- What does scientific rigour contribute that artistic imagination alone cannot?
- How could rhythm or music help us explore vibrations and sound waves?
- Why might offering different ways to express an idea help more learners participate?

7. Assessment and follow-up

Exit ticket: ask each learner to complete: “Art contributes...”, “Science contributes...” and “Together they can...”. Assess whether the artistic work represents the scientific concept accurately enough to explain it, and whether learners can describe their choices. As a follow-up, groups can revise their water-cycle model or sound-wave composition after peer feedback.

8. Accessibility and adaptation

Offer a choice of drawing, modelling, music, spoken explanation or writing. Provide vocabulary prompts (evaporation, condensation, precipitation; vibration, frequency; creativity, method, inclusion). Allow collaborative and multilingual explanations where helpful. Keep scientific accuracy and creative expression as complementary, not competing, goals.

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