



ACTIVITY

TECH MUSEUM OF TIME

Time: 180–240 minutes

Days of Implementation: 3–4 days

Grade Level: Upper Secondary

Designed by: Katja Anger-Delimi

Alignment with STEAM subjects

Science: Exploring how technological innovations emerged from the understanding of natural laws and resource use in different historical periods.

Technology: Examining how tools, infrastructure, and digital systems evolved to solve human challenges.

Engineering: Interpreting and reconstructing functional or symbolic models of historical technologies.

Arts: Creating expressive and visual representations of innovations across ages using various media (drawing, sculpture, digital design).

Mathematics: Analyzing scale, proportion, and symmetry in artifact design; timelines and technological progression over time.

Related or achieved SDGs

- SDG 4: Quality Education: Engages students with interdisciplinary, historical, and creative thinking.
- SDG 9: Industry, Innovation and Infrastructure: Promotes understanding of how innovation and infrastructure have driven progress through the ages.
- SDG 12: Responsible Consumption and Production: Encourages reflection on how technological progress relates to sustainability.

Objectives

By the end of the class, students will be able to:

- Trace technological innovation through seven historical [Ages of Globalization](#).
- Interpret how specific inventions impacted society and shaped global development.
- Design a creative and historically informed artifact or model from a selected era.
- Reflect on the relationship between technology, society, and sustainability.
- Present their artistic work, justifying its design and relevance in context.

Materials Needed

- Sketching materials, sculpting clay, cardboard, recycled or other materials of choice
- (Optional) Digital modeling tools
- [Ages of Globalization \(AoG\) Class 4 videos](#) and projector
- Historical reference sheets or timelines (e.g. [AoG Class 4 Lesson Plan](#), [AoG Timeline](#), [Google Arts & Culture Journey of Inventions and Discoveries](#))
- Blueprint and design templates
- Gallery space or classroom wall for an exhibit

Lesson Plan

Introduction

Innovation has shaped human history and society. The adoption of technology is influenced by climate, geography, and topography. By examining technological innovations, learners will understand technology's critical role in societal advancement and its ongoing influence on globalization. Understanding the relationship between technology and the environment aids in navigating future challenges in our interconnected world.

1. Inquiry & Exploration

Assign as preparatory homework or start with a classroom viewing of selected chapters from [Ages of Globalization Class 4: "2 Million Years of Technological Advancement"](#):

- (recommended) [Chapter 1: Types of Technology](#) (12 minutes)
- [Chapter 2: Technological Change](#) (17 minutes)
- (recommended) [Chapter 3: Innovation Through All Seven Ages](#) (11 minutes)
- [Chapter 4 - Empire: Infrastructure](#) (14 minutes)
- [Chapter 5 - Ocean Age and Industrialization](#) (12 minutes)
- (recommended) [Chapter 6: Digital Age](#) (15 minutes)

Follow with a group discussion on the role of technology in human advancement.

Discussion Questions (to give to students ahead of watching the videos for deeper focus):

- What do we mean by “technology” across time — from stone tools to smartphones?
- How has technological innovation shaped how people live, work, and connect?
- Which technologies changed the course of history the most? Why?
- How do today’s technologies compare to those of previous ages in terms of sustainability?

Each student joins one of seven groups by choosing a specific Age to focus on: Paleolithic Age 70,000-10,000 BCE, Neolithic Age 10,000-3000 BCE, Equestrian Age 3000-1000 BCE, Classical Age 1000 BCE - 1500 CE, Ocean Age 1500-1800, Industrial Age 1800-2000, Digital Age 2000-.

2. Investigation & Research

Each group selects 1-2 technological innovations from their chosen Age. They research:

- Its purpose and context in history
- Materials and design
- Impact on society and environment

Students document findings, and create a concept sketch or draft model.

Encourage exploration through these prompts:

- What problem did this technology solve?
- How did it change daily life, economies, or ecosystems?
- What parallels can we draw to modern technologies?

3. Implementation & Design

Building on their research and the discussion questions, groups move into a planning phase where they define the message or story of their exhibition pieces, decide on materials and format (physical, digital, mixed-media) and assign clear and manageable roles, which can include:

- Research Lead: keeps the group aligned with accurate historical context by supporting all roles, especially the Narrator
- Creative Lead: oversees the design, artistic direction and making of the exhibition piece(s)
- Project Coordinator: helps keep the group organized, ensures all voices are heard and coordinates with other groups to ensure coherence across the Ages the Tech Museum of Time
- Narrator/Presenter: crafts the display text or script and supports the final presentation
- Engagement Lead: designs quizzes, journeys or interactive tools for visitors to engage with the exhibition.

Several students can share the same role, and one student may take on more than one role depending on group size. Roles should be flexible and supportive of collaboration.

Students create the exhibition pieces and accompanying visuals, texts, quizzes, etc. featuring their chosen Age. Throughout this phase, the group checks:

- Is the design clear and engaging for others?
- Does the exhibit accurately represent the chosen Age and innovation?
- Is there a meaningful link to the SDGs or sustainability?
- Find more ideas and a structured plan here: [Australian Museum](#)

5. Presentation & Action

Set up a “Tech Museum of Time” or “Design Through the Ages” gallery walk in the classroom or school. During the exhibition, each group will present their artifact, sharing insights into their design process and their historical research. To deepen understanding and extend the exhibit’s impact, students can prepare interactive elements for visiting classes. These can include:

Criteria

- Historical accuracy and context
- Creativity and craftsmanship
- Research and explanation
- Connection to SDGs and sustainability
- Collaboration and role fulfillment
- Presentation and audience engagement skills

Reflection

- Did students fully understand?
- What should be improved for next time (e.g., more detailed instructions, additional resources)?
- Was the lesson engaging and relevant to students' interests?