

THE WRIGHT TECHNOLOGY

GRADE: 6-12

TIME: Three 1-hour sessions

What does it mean to design with technology in mind? Frank Lloyd Wright considered cutting-edge technology essential to the modern lifestyle, integrating modern conveniences (such as electricity and garages) into his home designs. In this lesson, students will define technology now and what they think the technology of the future will be. Students will discover the connection between contemporary technology and architectural design.

INTEGRATED SUBJECTS: Social Studies, Science, Visual Art, Social-Emotional Learning

OBJECTIVES

MATERIALS | RESOURCES

Projector and laptop (or individual screens for students) with internet connection
Printer and paper for articles
Drawing paper or sketchbooks
Pencils
Markers or colored pencils
Rulers
Erasers
Glue
Scissors
Magazines and/or catalogs (we suggest ones with architecture and home decor themes)
Building materials such as cardboard, foam core, Crayola Model Magic or another type of air dry clay, and/or recyclables (optional)

1. Understand the importance of technology in architectural design.
2. Be able to read and understand articles and participate in a class discussion.
3. Translate ideas into a drawing, collage, and/or model-building.

ESSENTIAL QUESTIONS

1. How is architecture impacted by increasingly necessary technologies?
2. What is the relationship between architecture, design, and technology?
3. What does technology look like in homes right now? In the future?
4. What evidence do we have that Frank Lloyd Wright cared about incorporating technology into his home designs?
5. Did Frank Lloyd Wright have the right idea in trying to incorporate the technology of his time?

LESSON PROCEDURE

EXPLORE

Session One

- Introduce the work of Frank Lloyd Wright, highlighting his focus on modernity in architecture.
 - Give specific examples of the integration of technology into his architecture. We recommend discussing the Robie House garages and integration of electricity with uniquely designed fixtures.
 - Have students read The New Yorker article “How the Garage Became America’s Favorite Room” (<https://www.newyorker.com/culture/dept-of-design/how-the-garage-became-americas-favorite-room>).
- ◇ Differentiation: have students read the article with a partner or as a whole class.

ENGAGE

Session One

- Ask students to consider and share examples of technology that are often taken for granted, such as electricity, air conditioning, and plumbing.
 - ◇ This is designed to prompt students to think about technology they do not consider regularly but use frequently. Point out how integral technology is to their lives.
- Have the students sketch the technology used in a specific room.
- Challenge students to create a second sketch that incorporates the technology in a new way, as if they are working in Wright’s era and will be at the forefront of including these technologies into homes.
 - ◇ Optional: assign this task as homework.

EXPLORE

Session Two

- Have students watch the video of *Ready Player One’s* omnidirectional treadmill (https://www.youtube.com/watch?v=iwOxAx_tsQE).
- ◇ Optional: assign this task as homework prior to Session 2.

ENGAGE

Session Two

- Lead a discussion on how *Ready Player One’s* omnidirectional treadmill technology, which involved moving within a limited space, might have an impact on architectural design.
 - Have students read the *Forbes* article “Smart Home Tech Trends For 2022 – *Forbes* Advisor” on their own or with a partner (<https://www.forbes.com/advisor/home-improvement/smart-home-tech-trends/>).
- ◇ Optional: assign this task as homework prior to Session 2.
- Have students discuss with a partner if any of the technologies from the *Forbes* article are in their own homes. Then, have individuals offer to share aloud with the class.

DESIGN

Session Two

- Have students work in small groups to brainstorm a list of ideas for a new technology they would want in their own homes, similar to one listed in the *Forbes* article.
- Give students time to independently sketch an idea for a new technology they would want in their own homes. Encourage students to create several sketches and to add color using markers or colored pencils.
- Instruct students to use magazines to create a collage based on their sketches.

LESSON PROCEDURE

EXPLORE

Session Three

- **Have students watch Tony Stark's Workshop Scene - *Iron Man 2* (2010) up to 1:30** (<https://www.youtube.com/watch?v=dh2v48QZXHw>).

ENGAGE

- **Discuss the use of technology in this futuristic space. Some helpful questions include:** How does Tony integrate technology into his workspace? In what ways did it work? In what ways did it not work? What would you recommend to Tony if he were redesigning this workspace?
- **Have them consider the questions:** What role will AI play in future homes? Do you want AI in your own homes? Why or why not?
 - ◇ Differentiation: students respond to the above questions in writing.

DESIGN

- **Ask students to refer back to their collage and sketches from the previous session. Encourage students to use any new ideas they have to create 2-3 new sketches about the technology they want to see in a home of the future.**
- **Optional Extension:** Instruct students to construct a futuristic home for themselves using the building materials provided.

CRITIQUE & INTERPRET

- **Have students share their designs. Discuss the pros and cons of each design as a class, or in groups of 4-5 students.**
- **Give students time to make alterations to their designs, as appropriate.**