

Technology and Research

This semester-long course uses the topic of technology as a way to help students develop fundamental knowledge of the steps in the research process. During the course, students learn how new technology is developed and evaluate ways that technology affects society. Students learn about the development of the personal computer, robots, blogs, and wikis. They learn research and writing skills such as how to evaluate scientific journal articles, how to write an abstract, and how and when to use different online sources.

A majority of the lessons contain optional activities for students. These activities encourage students to reflect on what they've learned. The activities are not graded. Rather, they are a way for students to extend their thinking about the lesson content.

Upon completion of the course, students should be able to do the following:

- Define technology and describe how and why new technologies are developed
- Describe how science and technology are related
- Compare and contrast qualitative and quantitative research
- Develop and refine a research question
- List how and when to use different online sources
- Evaluate a scientific journal article
- Write an abstract
- Successfully write a 10- to 15-page research paper (at least 2000 words)
- Develop a creative way to present research information

Unit 1: Technology and Research			
Assignments			
Technology and Research	1.	Course Overview	20. Evaluating Journal Articles: Part 1
	2.	Introduction to Technology and Research	21. Evaluating Journal Articles: Part 2
	3.	Technology Study: Part 1	22. Technology Case Study: Part 1
	4.	Technology Study: Part 2	23. Technology Case Study: Part 2
	5.	What is Technology?	24. Technology Case Study: Part 3
	6.	Project: What is Technology?	25. Technology Case Study: Part 4
	7.	Why Is New Technology Developed?	26. Technology Case Study: Part 5
	8.	Project: Why Is New Technology Developed?	27. Project: Technology Case Study: Part 5
	9.	How Is Technology Developed? Part 1	28. Project Introduction
	10.	How Is Technology Developed? Part 2	29. Project Research
	11.	How Technology Affects Our Lives: Part 1	30. Project Outline
	12.	Project: How Technology Affects Our Lives: Part 1	31. Project Writing
	13.	How Technology Affects Our Lives: Part 2	32. Project Revisions
	14.	Project: How Technology Affects Our Lives: Part 2	33. PowerPoint Presentation: Part 1
	15.	Science and Technology: Part 1	34. PowerPoint Presentation: Part 2
	16.	Science and Technology: Part 2	35. PowerPoint Presentation: Part 3
	17.	Quantitative Research	36. Writing an Abstract
	18.	Project: Quantitative Research	37. Final Project
	19.	Qualitative Research	38. Glossary and Credits