

# TECHNOLOGY and DESIGN 6



## Course Outline

Location: Devon Middle School, Technology Rooms (Computer Lab and Woodshop)  
Teacher: Mr. Graham Rich, graham.rich@nbed.nb.ca  
Web: [witty.ca](http://witty.ca) → Courses → “DMS 2023-2024” → “Tech and Design 6”

## Program Overview

Technology and Design classwork will help students build practical skills in technology through assignments and creative project work. Once critical skills have been demonstrated, students will have flexibility to select design projects according to their strengths and interests. This class offers the opportunity to examine, create, reflect and appreciate technological design as personal and cultural expression. Students will learn to recognize the positive and negative impacts technology, including social media and video games. Students will discuss cybersecurity awareness and protection strategies.

### Assessments

- Assignments and Projects
- Tests (both written and practical)

## Course Description

Students will have the opportunity to develop skills in the use of various technologies, in design principles and in project management.

## Curriculum Outcome Strands

- Practical Skills (Safety, Tool Use)
- Information Technology Skills (Computational Practice, Digital Citizenship)
- Design Thinking Skills (Problem Solving)

### Possible Topics of Study

- Digital Citizenship
- Typing
- 3D Building Design
- Coding (Computer Programming)
- Cybersecurity Awareness
- Woodworking (safety, hammer, nails)

## Expectations on Students for Learning

- Technology and Design 6 is a hands-on project-based course and **attendance is essential**.
  - If a student **misses 2 or more classes**, speak to Mr. Rich and/or visit when the Tech Rooms are open at lunch.
- Students should arrive on-time, follow instructions, help others with their work, receive help from others, create unique projects, work safely, always have something to do and always try your best.
- If Mr. Rich is giving instructions, then this is to help your learning experience so please pay attention.

## Requirements for Students

- Technology and Design 6 will involve computer work and therefore requires a school login.
    - Students should please be prepared with their login username and password, either memorized or written out.
    - Headphones will be useful for computer-based work. Mr. Rich recommends less expensive ones such as the \$4 headphones from Dollarama (although with taxes and fees, they may cost \$5.75 or more). Mr. Rich also has a classroom set available for sharing if that is preferred or necessary.
  - Technology and Design 6 will involve a small amount of woodworking with cedar, hammer and nails.
  - Mr. Rich intends to have the technology lab open for many lunch periods so students can catch up for missed time.
  - Mr. Rich also offers extra-curricular clubs that use the Technology and Design Lab. Stay tuned!
- Parents can contact Mr. Rich by phone, email, at parent-teacher meetings or by appointment.

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## Technology and Design 6

I have read the course outline. I understand the course objectives.

Parent/Guardian Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Student Name: \_\_\_\_\_ Signature: \_\_\_\_\_

# Middle School Technology Education – Curriculum Outcomes (New 2023)

*By the end of grade 8, students will be expected to:*

<b>1. STRAND: PRACTICAL SKILLS</b>
<b>BIG IDEA: SAFETY</b>
<ul style="list-style-type: none"><li>• Skill Descriptor: Investigate and apply fire safety procedures.</li><li>• Skill Descriptor: Identify and practice safe work habits.</li></ul>
<b>BIG IDEA: TOOL USE</b>
<ul style="list-style-type: none"><li>• Skill Descriptor: Demonstrate safe use, cleaning, and storage of basic hand tools.</li><li>• Skill Descriptor: Measure materials using a variety of measuring tools.</li><li>• Skill Descriptor: Identify and use portable, cordless power tools.</li><li>• Skill Descriptor: Identify and use stationary power tools.</li></ul>
<b>2. STRAND: INFORMATION TECHNOLOGY SKILLS</b>
<b>BIG IDEA: COMPUTATIONAL PRACTICE</b>
<ul style="list-style-type: none"><li>• Skill Descriptor: Apply basic coding skills to solve problems.</li><li>• Skill Descriptor: Represent data visually using coding scripts.</li></ul>
<b>BIG IDEA: DIGITAL CITIZENSHIP</b>
<ul style="list-style-type: none"><li>• Skill Descriptor: Apply cybersecurity knowledge to personal data.</li><li>• Skill Descriptor: Apply cybersecurity practices to hardening of computers.</li><li>• Skill Descriptor: Distinguish between types of cybersecurity attacks.</li> <li>• Skill Descriptor: Use collaborative tools while working with others.</li><li>• Skill Descriptor: Identify ethical use of computing technology.</li></ul>
<b>3. STRAND: DESIGN THINKING SKILLS</b>
<b>BIG IDEA: PROBLEM SOLVING</b>
<ul style="list-style-type: none"><li>• Skill Descriptor: Plan, execute and present a project within given parameters and with assistance.</li></ul>

FYI: “Strands” are used as the main categories in student report cards.