

**HAMILTON TOWNSHIP SCHOOL DISTRICT
TECHNOLOGICAL LITERACY PROGRESS INDICATORS MATRIX**

A=Awareness
I = Introduction
D = Developing
M = Master

8.1 Computer and Information Literacy

| By the end of Grade 4, students will: | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8.1.4 A. Basic Computer Skills and Tool | | | | | | | | | |
| 1. Use basic technology vocabulary. | A | I | D | D | M | | | | |
| 2. Use basic features of an operating system (e.g., accessing programs, identifying and selecting a printer, finding help). | A | I | D | D | M | | | | |
| 3. Input and access text and data, using appropriate keyboarding techniques or other input devices. | A | I | D | D | M | | | | |
| 4. Produce a simple finished document using word processing software. | A | I | D | D | M | | | | |
| 5. Produce and interpret a simple graph or chart by entering and editing data on a prepared spreadsheet template. | | | I | D | M | | | | |
| 6. Create and present a multimedia presentation using appropriate software. | | | I | D | M | | | | |
| 7. Create and maintain files and folders. | | | I | D | M | | | | |
| 8. Use a graphic organizer. | | | I | D | M | | | | |
| 9. Use basic computer icons | A | I | D | D | M | | | | |
| 8.1.4 B. Application of Productivity Tools | | | | | | | | | |
| <i>Social Aspects</i> | | | | | | | | | |
| 1. Discuss the common uses of computer applications and identify their advantages and disadvantages. | A | I | D | D | M | | | | |
| 2. Recognize and practice responsible social and ethical behaviors when using technology, and understand the consequences of inappropriate use including: <ul style="list-style-type: none"> ▪ Internet access ▪ Copyrighted materials ▪ On-line library resources ▪ Personal security and safety issues | | | | | M | | | | |
| 3. Practice appropriate Internet etiquette. | | | | I | M | | | | |
| 4. Recognize the ethical and legal implications of plagiarism of copyrighted materials. | | | | | M | | | | |
| <i>Information Access and Research</i> | | | | | | | | | |
| 5. Recognize the need for accessing and using information. | | | | I | M | | | | |
| 6. Identify and use web browsers, search engines, and directories to obtain information to solve real world problems. | | | | I | M | | | | |
| 7. Locate specific information by searching a database | | | | | M | | | | |
| 8. Recognize accuracy and/or bias of information. | | | I | D | M | | | | |
| <i>Problem Solving and Decision Making</i> | | | | | | | | | |
| 9. Solve problems individually and/or collaboratively using computer applications | | | I | D | M | | | | |
| 10. Identify basic hardware problems and solve simple problems. | | | | I | M | | | | |

| Building upon knowledge and skills gained in preceding grades, by the end of Grade 8, students will: | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|
| 8.1.8 A. Basic Computer Skills and Tools | | | | | | | | | |
| 1. Use appropriate technology vocabulary | A | I | D | D | D | D | D | D | M |
| 2. Use common features of an operating system (e.g., creating and organizing files and folders). | A | I | D | D | D | D | D | D | M |
| 3. Demonstrate effective input of text and data, using touch keyboarding with proper technique. | A | I | D | D | D | D | D | D | M |
| 4. Input and access data and text efficiently and accurately through proficient use of other input devices, such as the mouse. | A | I | D | D | D | D | D | D | M |
| 5. Create documents with advanced text-formatting and graphics using word processing. | | | | | I | D | D | D | M |
| 6. Create a file containing customized information by merging documents. | | | | | I | D | D | D | M |
| 7. Construct a simple spreadsheet, enter data, and interpret the information. | | | I | D | D | D | D | D | M |
| 8. Design and produce a basic multimedia project. | | | I | D | D | D | D | D | M |
| 9. Plan and create a simple database, define fields, input data, and produce a report using sort & query. | | | | | | | I | D | M |
| 10. Use network resources for storing and retrieving data. | | | I | D | D | D | D | D | M |
| 11. Choose appropriate electronic graphic organizers to create, construct, or design a document. | | | | | | | I | D | M |
| 12. Create, organize and manipulate shortcuts. | | | | | | | | | I |
| 8.1.8 B. Application of Productivity Tools | | | | | | | | | |
| Social Aspects | | | | | | | | | |
| 1. Demonstrate an understanding of how changes in technology impact the workplace and society. | | | | | I | D | D | D | M |
| 2. Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse. | | | | | | I | D | D | M |
| 3. Explain the purpose of an Acceptable Use Policy and the consequences of inappropriate use of technology. | | | | | I | D | D | D | M |
| 4. Describe and practice safe Internet usage. | | | | | I | D | D | D | M |
| 5. Describe and practice "etiquette" when using the Internet and electronic mail. | | | | | | | I | D | M |
| Information Access and Research | | | | | | | | | |
| 6. Choose appropriate tools and information resources to support research and solve real world problems, including but not limited to: <ul style="list-style-type: none"> ▪ On-line resources and databases ▪ Search engines and subject directories | | | | | | | I | D | M |
| 7. Evaluate the accuracy, relevance, and appropriateness of print and non-print electronic information sources. | | | I | D | D | D | D | D | M |
| Problem Solving and Decision Making | | | | | | | | | |
| 8. Use computer applications to modify information independently and/or collaboratively to solve problems. | | | I | D | D | D | D | D | M |
| 9. Identify basic hardware problems and demonstrate the ability to solve common problems. | | | | I | D | D | D | D | M |
| 10. Determine when technology tools are appropriate to solve a problem and make a decision. | | | | | | | I | D | M |

8.2 Technology Education

| By the end of Grade 4, students will: | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 8.2.4 A. Nature and Impact of Technology | | | | | | | | | |
| 1. Refer to Science Standards 5.2 and 5.4. | | | | | | | | | |
| 8.2.4 B. Design Process and Impact Assessment | | | | | | | | | |
| 1. Refer to Science Standards 5.2 and 5.4 | | | | | | | | | |
| 8.2.4 C. Systems in the Designed World | | | | | | | | | |
| 1. Refer to Science Standards 5.2 and 5.4 | | | | | | | | | |
| Building upon knowledge and skills gained in preceding grades, by the end of Grade 8, students will: | | | | | | | | | |
| 8.2.8 A. Nature and Impact of Technology | | | | | | | | | |
| 1. Describe the nature of technology and the consequences of technological activity. | | | | | | | I | D | M |
| 2. Describe how components of a technological product, system, or environment interact. | | | | | | | A | D | M |
| 3. Describe how one technological innovation can be applied to solve another human problem that enhances human life or extends human capability. | | | | | | | I | D | M |
| 4. Describe how technological activity has an affect on economic development, political actions, and cultural change. | | | | | | | A | I | D |
| 5. Explain the cultural and societal effects resulting from the dramatic increases of knowledge and information available today. | | | | | | | A | I | D |
| 8.2.8 B. Design Process and Impact Assessment | | | | | | | | | |
| 1. Demonstrate and explain how the design process is not linear | | | | | | | D | D | M |
| 2. Use hands on activities to analyze products and systems to determine how the design process was applied to create the solution. | | | | | | | I | D | M |
| 3. Identify a technological problem and use the design process to create an appropriate solution. | | | | | | | D | D | M |
| 4. Describe how variations in resources can affect solutions to a technological problem. | | | | | | | A | I | D |
| 5. Select and safely use appropriate tools and materials in analyzing, designing, modeling or making a technological product, system, or environment. | | | | | | | A | I | D |
| 8.2.8 C. Systems in the Designed World | | | | | | | | | |
| 1. Explain technological advances in medical, agricultural, energy and power, information and communication, transportation, manufacturing , and construction technologies. | | | | | | | I | D | M |
| 2. Explain reasons why human-designed systems, products, and environments need to be monitored, maintained, and improved to ensure safety, quality, cost efficiency, and sustainability. | | | | | | | A | I | D |
| 3. Explain the functions and interdependence of subsystems such as waste disposal,, water purification, electrical, structural, safety, climactic control, and communication. | | | | | | | A | I | D |