

Business Technology 12

At-a-Glance

Website References Website references contained within this document are provided solely as a convenience and do not constitute an endorsement by the Department of Education of the content, policies, or products of the referenced website. The department does not control the referenced websites and subsequent links, and is not responsible for the accuracy, legality, or content of those websites. Referenced website content may change without notice.

Regional Education Centres and educators are required under the Department's Public School Programs Network Access and Use Policy to preview and evaluate sites before recommending them for student use. If an outdated or inappropriate site is found, please report it to curriculum@novascotia.ca

Business Technology 12 – At A Glance

© Crown copyright, Province of Nova Scotia, 2025, 2026

Prepared by the Department of Education and Early Childhood Development

This is the most recent version of the current curriculum materials as used by teachers in Nova Scotia.

The contents of this publication may be reproduced in part provided the intended use is for noncommercial purposes and full acknowledgment is given to the Nova Scotia Department of Education.

Learners will develop skills needed for the creation of professional digital products

Digital Productivity and Communication

Rationale

Understanding how professional digital products are created helps learners recognize the planning, design, and technical processes that contribute to effective communication in modern business environments. By analysing elements such as layout, branding, accessibility, and user experience, learners develop the ability to evaluate what makes digital products clear, engaging, and aligned to an audience and purpose. This knowledge equips learners with the foundational skills needed to format and design high quality digital materials.

Competencies

- Communication (COM)
- Creativity and Innovation (CI)
- Critical Thinking (CT)
- Personal Career Development (PCD)
- Technological Fluency (TF)

Indicators

- **Apply** formatting, referencing and template features within a variety of documents (CT, TF)
- **Use** automation tools to streamline repetitive tasks (CT, TF, PCD)
- **Implement** collaborative features in documents (COM, CT, CI)

Concepts (and Guiding Questions)

Formatting

- How do formatting choices (e.g. styles, headings, spacing, alignment) help make a document clearer, more professional, and easier to navigate?
- How do businesses use proper referencing and related tools to help ensure accuracy and consistency?
- How can I use templates to improve the structure, accessibility, and visual organization of a document while saving time during production?
- How do I ensure business related branding and requirements appear consistently across a variety of documents?
- How do I use features or strategies (e.g. heading styles, alternative text, font size, colour contrast) to help ensure that a document is accessible to all users?

Automation

- How can automation tools (e.g. macros, fill-down features, scripted actions) reduce the time and effort required for repetitive tasks?
- What types of tasks are best suited for automation?
- How do we decide when using automation is more efficient than doing work manually?
- How can we ensure that automated processes run accurately and consistently without introducing errors into our work?
- In what ways can automation improve productivity and support more advanced problem-solving in a given workflow?

Learners will develop skills needed for the creation of professional digital products (cont.)

Collaboration Features

- How do collaborative document features (e.g., shared editing, comments, suggestions) help teams work together more efficiently and effectively?
- What strategies can we use to coordinate roles, manage edits, and maintain clarity when multiple people are contributing to the same document?
- How do tools like version history, track changes, and permission settings support accountability and protect document integrity during collaboration?
- How can we ensure everyone has opportunities to contribute?

Learners will create presentations suitable for a business environment

Digital Productivity and Communication

Rationale

Creating effective presentations is essential in modern business settings, where clear communication supports decision-making and collaboration. By learning to design purposeful, visually organized presentations, learners explore how to tailor content to specific audiences, enhancing clarity and impact. Understanding how to plan for and embed accessibility features helps to further ensure a product that is inclusive of a variety of audiences. This prepares learners for post-secondary and workplace environments where audience-appropriate, accessible presentations are critical to professional success.

Competencies

- Communication (COM)
- Creativity and Innovation (CI)
- Critical Thinking (CT)
- Personal Career Development (PCD)
- Technological Fluency (TF)

Indicators

- **Plan** a presentation to meet the needs of a given audience and purpose (CT, CI, PCD)
- **Apply** slide design and navigation features effectively (CT, TF)
- **Analyse** suitability of visual elements for specific audiences (COM, CT, CI)
- **Evaluate** presentation flow and accessibility for clarity and impact (COM, CT)

Concepts (and Guiding Questions)

Audience and Purpose

- How can I plan overall goals, sequence, and materials?
- How can I create a professional presentation that is accessible to a variety of audiences?
- How can I organize information, images, and speaker notes to create a compelling business document?
- What aspects of universal design will help me develop my presentation?

Design and Navigation

- How do slide design choices like layout, color, font, and visual balance impact audience engagement and clarity during a presentation?
- Which navigation features (e.g., hyperlinks, section dividers, interactive buttons) help make a presentation easier to follow and more interactive?
- How can we use visual hierarchy and spacing to guide the audience's attention to the most important information on each slide?
- What strategies help ensure that multimedia elements (i.e. images, videos, animations) enhance the presentation rather than distract from the message?

Learners will create presentations suitable for a business environment (cont.)

Adding Visual Elements

- How do demographics, target markets, and purpose influence what visual elements are appropriate for a specific audience?
- What makes certain visual elements effective for communicating information to a particular audience?
- How can I determine whether a visual element works to enhance understanding and support the intended message rather than confusing or misleading the intended audience?
- How do I determine if visual elements are accessible to an audience?

Determining Impact

- How can speaker notes, slide masters, and slide transitions contribute to a professional presentation?
- What accessibility features (e.g. readable fonts, sufficient color contrast, alternate text) help ensure all audience members can engage with the presentation?
- How can I deliver presentations in ways that ensure accessibility for an audience (e.g., closed captioning, printed notes, etc.)?
- How can I assess whether transitions, pacing, and visual elements support the flow of information?
- What criteria can be used to determine whether a presentation communicates its ideas clearly, effectively, and with strong overall impact?

Learners will use advanced spreadsheet features to organize and manipulate data

Foundations in Data Management and Analysis

Rationale

Using advanced spreadsheet features enables learners to purposefully manipulate data by applying formulas, functions, and automation techniques to organize, analyse, and interpret complex datasets. Through evaluating accuracy, reliability, and validity, learners develop the ability to identify errors, validate results, and generate meaningful insights that support informed decision making. These skills build essential data literacy and prepare learners for post secondary pathways and modern workplaces where effective and intentional data use is critical.

Competencies

- Communication (COM)
- Critical Thinking (CT)
- Personal Career Development (PCD)
- Technological Fluency (TF)

Indicators

- **Investigate** how formulas and functions can be applied to a given data set (CT, TF)
- **Apply** automation techniques accurately to a given data set (PCD, TF)
- **Evaluate** the overall accuracy, reliability, and validity of data management techniques (COM, CT, TF)

Concepts (and Guiding Questions)

Formulas and Functions

- How do different spreadsheet formulas and functions (e.g. COUNTIFS, SUMIF, SUBTOTAL) help to calculate, organize, and analyze data more accurately and efficiently?
- When would using advanced functions lead to better insights or more informed decision making?
- What steps should we take to ensure our formulas and functions are working as intended?

Automation Techniques

- How can automation tools (e.g. formulas, macros, coding or scripts) reduce manual work and improve consistency when working with large or complex datasets?
- What steps should we take to ensure our automation techniques are working as intended?
- Why are correct referencing in formulas and functions (e.g. cell references, absolute referencing, macros) important factors in maintaining data accuracy?

Learners will use advanced spreadsheet features to organize and manipulate data

Data Analysis

- What criteria can we use to decide whether a dataset is accurate, complete, and reliable before analysing or using it?
- How can tools such as data types, validation rules, and error checking functions help identify mistakes or inconsistencies in a dataset?
- What kinds of errors (e.g., duplicates, missing values, incorrect formats) commonly occur in data, and how can they be detected and corrected?
- How can I determine if the results of formula, functions, and automations produce correct and reliable results?
- Why is validating data important for ensuring meaningful analysis and preventing incorrect conclusions or decisions?

Learners will **analyse** how data is interpreted and used to inform decision making in business.

Foundations of Data Management and Analysis

Rationale

Analyzing spreadsheet data helps learners uncover trends, relationships, and insights that support informed business decision-making. By developing the ability to interpret patterns within structured datasets, learners strengthen their analytical thinking and build essential data-literacy skills used across modern industries. This competency prepares learners to engage confidently in post-secondary studies and workplace environments where evidence-based reasoning and data-driven solutions are increasingly expected.

Competencies

- Communication (COM)
- Creativity and Innovation (CI)
- Critical Thinking (CT)
- Technological Fluency (TF)

Indicators

- **Analyse** trends and distributions across multiple data sets using visual representations (COM, CT)
- **Evaluate** how business decisions are influenced by the selection, interpretation, and presentation of data (COM, CI, CT)
- **Justify** conclusions found through data analysis (COM, CT)

Concepts (and Guiding Questions)

Trends and Distribution

- How do I gather information from multiple datasets and display it in a single, cohesive visual format?
- How are visual representations (e.g., pivot table, chart type, or combination) used to identify and highlight trends in data?
- How does a change in one data set impact results found in another?
- How do I determine if a chosen summary method (e.g., mean, sum, count) best represents the data I have?
- What evidence displayed or organized in charts and tables can help me understand relationships and trends in the data?

Impacts on Business Decisions

- How can the same dataset lead to different business decisions?
- What makes data interpretation and communication reliable or misleading?
- How do businesses use trends and patterns to reduce risk or improve performance?
- How can different representations of data (e.g. charts, tables) influence decision-making?
- What additional information might be needed before making a decision based on data?

Learners will analyse how data is interpreted and used to inform decision making in business. (cont.)

Data Informed Conclusions

- How can I use data analysis outputs (e.g., tables, charts, summaries, pivot results, dashboards) to provide evidence for my conclusions?
- How can I determine whether patterns or trends in data are meaningful?
- How can I identify bias or gaps in data that need to be accounted for?
- How could limitations in the data or analysis affect the accuracy or strength of my conclusions?

Learners will investigate risks associated with data use and management

Data Protection and Digital Responsibility

Rationale

Effective data management and protection are essential for maintaining the security, accuracy, and reliability of information in modern business environments. By investigating these practices, learners develop an understanding of ways that data breaches can happen, and potential practices to mitigate threats. The impact of data breaches can have ongoing effects on individuals, organizations, and use of digital systems. Planning and exploring methods to keep data safe and secure are important. This knowledge equips learners with the awareness and responsibility needed to support ethical, secure, and informed data use in future workplace and post-secondary settings.

Competencies

- Communication (COM)
- Critical Thinking (CT)
- Personal Career Development (PCD)
- Technological Fluency (TF)

Indicators

- **Identify** categories of personal data (COM, CT)
- **Investigate** various data risks associated with data management (COM, CT, PCD)
- **Analyse** methods that can be used to protect and manage personal data (COM, CT, TF, PCD)

Concepts (and Guiding Questions)

Personal Data

- What categories of personal data (e.g., basic identity information, financial data, health records, online activity) do individuals commonly share, and where do these appear in everyday digital interactions?
- What potential harm (e.g. identity theft, financial loss, privacy invasion) occurs from misuse or exposure of various categories of personal data?
- How can individuals and organizations evaluate which types of personal data require stronger protection or stricter handling practices?

Data Management Risks

- What types of data risks (e.g. unauthorized access, theft, data loss, corruption, misuse) can occur during the storage, processing, and sharing of information?
- How does the sensitivity of different data types influence the level of associated risks for access, sharing, or storage?
- How could human behaviours, system vulnerabilities, and/or poor data-management practices contribute to increased data risks?
- What are consequences or impacts of mishandling data?

Learners will investigate risks associated with data use and management (cont.)

Protecting and Managing Data

- How can individuals assess and prioritize potential data risks to better maintain the security of their information systems?
- What strategies can be used to protect data from risks such as cyberattacks, accidental loss, or unauthorized access?
- How do tools like encryption, access controls, firewalls, and regular backups help organizations manage and reduce data related risks?
- What policies, procedures, or practices (e.g., staff training, strong password practices, data handling guidelines) can businesses implement to minimize data risks?
- Which data protection strategies (e.g., backups, encryption, access controls) are most effective for reducing specific types of risks?

Learners will investigate how formula and functions can manipulate and refine business related data

Data Protection and Digital Responsibility

Rationale

Understanding data security risks is essential as businesses increasingly rely on digital systems to store, process, and share sensitive information. By analyzing how organizations identify threats and implement protection strategies, learners develop insight into the technical, legal, and ethical responsibilities involved in safeguarding data. This knowledge prepares learners to contribute to secure business environments and make informed decisions in future workplace or post secondary settings.

Competencies

- Citizenship (CZ)
- Communication (COM)
- Critical Thinking (CT)
- Personal Career Development (PCD)
- Technological Fluency (TF)

Indicators

- Investigate responsibilities for handling personal information (CZ, COM, PCD)
- Investigate methods that businesses use to manage risks associated with data protection (COM, PCD, TF)
- Identify appropriate strategies that could be used to safeguard data in digital systems (COM, CT)
- Evaluate the ways that businesses have responded to data breaches (CZ, COM, CT)

Concepts (and Guiding Questions)

Responsibilities for Handling Data

- What are employer and employee responsibilities for the management, collection, and security of personal data?
- What laws and regulations govern how personal information is collected, stored, and shared?
- What ethical responsibilities do individuals and organizations have when handling personal information?
- How can mishandling personal information impact individuals, organizations, and society?

Managing Risks

- What common risks threaten the security, privacy, and integrity of digital data?
- What data safeguarding methods (e.g. encryption, firewalls, backups, access controls) help protect data from unauthorized access or loss?
- How do organizational practices (e.g. employee training, strong password policies, data-handling procedures) reduce data-related risks?
- What best practices should be followed to ensure that personal information is protected and used responsibly in digital environments?
- How can businesses evaluate and improve their data-protection strategies to ensure they remain effective against emerging threats?

Learners will investigate how formula and functions can manipulate and refine business related data (cont.)

Safeguarding Data

- How can understanding the types of threats that put data at risk help with choosing appropriate protection strategies?
- How do different data-safeguarding methods help protect information in digital systems?
- What factors should be considered when deciding which data-protection strategy is most suitable for a particular system or situation?
- How can combining multiple safeguards create an effective data-protection plan?

Responses to Data Breaches

- How have businesses responded after experiencing a data breach?
- What factors would be considered when determining which responses are most effective?
- How do responses to data breaches impact a company's reputation, customer relationships, and legal obligations?
- What lessons can businesses and organizations learn from data breaches to strengthen their own data-protection practices?

Learners will analyse the use of emerging business technologies

Emerging Business Technologies

Rationale

Emerging business technologies are reshaping how organizations operate, communicate, and compete in a rapidly evolving digital economy. By analysing these technologies, learners develop an understanding of how innovations such as automation, artificial intelligence, cloud computing, and digital collaboration tools influence productivity and strategic decision making. This knowledge prepares learners to adapt to technological changes and make informed choices in future academic, entrepreneurial, and workplace environments.

Competencies

- Citizenship (CZ)
- Communication (COM)
- Critical Thinking (CT)
- Personal Career Development (PCD)
- Technological Fluency (TF)

Indicators

- **Investigate** trends in business technologies (COM, CT, TF)
- **Evaluate** strengths, challenges, and ethical considerations related to emerging technologies (CZ, COM, CT, TF)
- **Compare** the ways that new and emerging technologies could support productivity (COM, CT, PCD, TF)
- **Investigate** factors that businesses consider when looking to integrate new technologies (CT, PCD, TF)

Concepts (and Guiding Questions)

Technology Trends

- What new technologies or trends are emerging in business technology?
- How are new and emerging technologies impacting businesses?
- What skills can be developed in support of new or emerging technologies?

Emerging Technologies

- How can businesses use technology in ways that are efficient, ethical, and environmentally responsible?
- What are potential risks and mitigations to integrating new technologies?
- What safeguards, policies, or guidelines may be needed for the use of new technologies?
- What challenges arise in the use of emerging technologies?

Technology and Productivity

- What problems do new and emerging technologies work to solve?
- How do businesses measure productivity or impact?
- How do we know if a given technology is effective at solving the intended problem?
- How do accuracy, cost, and risks differ among similar technologies?
- How might smaller or larger businesses differ in their responses to new technologies?

Learners will analyse the use of emerging business technologies (cont.)

Integrating New Technologies

- How do businesses determine if a new or emerging technology should be used?
- How do businesses consider economic, environmental, and social impacts when determining if they should adopt a new technology?
- How does cost, efficiency, and customer needs factor in decision making?
- What advantages does scalability provide?

Learners will create business solutions that integrate multiple digital products

Integrated Digital Projects

Rationale

In combining multiple applications, using appropriate formats, and ensuring compatibility and accessibility, learners develop the skills needed to produce unified and effective products. Here, learners develop the ability to design purposeful, professional business documents by identifying clear objectives and selecting appropriate digital tools. They work to create cohesive solutions that integrate text, visuals, data, and other digital assets. By making intentional design choices (such as layout, features, and media) and justifying how these decisions support their message and audience, learners strengthen their ability to create real world business solutions.

Competencies

- Communication (COM)
- Creativity and Innovation (CI)
- Critical Thinking (CT)
- Personal Career Development (PCD)
- Technological Fluency (TF)

Indicators

- **Identify** a purpose for the creation of business documents (COM, CT)
- **Determine** the appropriate software applications needed to develop a business solution (CT, CI, TF)
- **Use** appropriate software applications to complete a variety of tasks (PCD, TF)
- **Justify** design decisions for the development of business solutions (COM, CT, CI, PCD)

Concepts (and Guiding Questions)

Business Documents

- How can I determine if automation of tasks can assist me in developing my product(s)?
- What types of documents, visuals, or digital assets does my project require (e.g., graphic editing, file conversion, presentation)?

Selecting Software Applications

- How can multiple digital products or tools combine to create effective business solutions?
- How can I compare different applications to determine which will produce will serve the overall purpose for my project?
- Which software tools are best suited for creating an overall cohesive product?

Using Software Applications

- What file formats do I need to work with or convert?
- How am I ensuring document compatibility and accessibility?
- How can I connect a variety of documents together in a cohesive way?

Learners will **create** business solutions that integrate multiple digital products (cont.)

Design Decisions

- How do the features I choose (e.g., transitions, animations, charts, media, speaker notes) support the audience and purpose of my business solution(s)?
- How do layout, text, and visual design choices work together to effectively communicate my ideas?
- What design and formatting standards am I applying to ensure my product is professional, accessible, and aligned with business expectations?
- Why is my design and choice of digital tools the best decisions for the development of my business solution?

Skill Descriptions

Analyse — Consider the nature or structure of something by deconstructing it into its component parts in order to understand or explain it.

Apply — Carry out, use, or complete a procedure/ technique.

Compare — Make observations; identify similarities and differences; identify relationships and offer an interpretation; communicate the findings.

Create — develop an idea; communicate a representation for a process and/or a product; produce a product; modify as necessary; evaluate results and/or modifications.

Determine — Decide or conclude through reasoning or observation.

Develop — Strengthen skills, knowledge, or understanding through building on acquired or existing abilities.

Evaluate — Offer a critical review of something by considering the strengths and limitations.

Identify — Distinguish specific elements based on their unique features.

Implement — Carry out a process, strategy, or plan.

Investigate — Carry out an inquiry to examine and better understand a concept.

Justify — Support a conclusion based on valid evidence.

Plan — Devise a process for the realization or achievement of an objective.

Use — Put knowledge or skills into action or service.