

# IT Applications II: Grades 9-12

Organize, aggregate, and manipulate data using advanced word processing features. [CIS.HS.11.1](#)

- a** Integrate other program files into word processing documents (insert, embed, and link). [CIS.HS.11.1.A](#)

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- b** Create and format tables using advanced features (formulas, styles). [CIS.HS.11.1.B](#)

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- c** Use advanced merge features to integrate spreadsheet and database information into the word processing document as fields and records. [CIS.HS.11.1.C](#)

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- d** Create and manage styles. [CIS.HS.11.1.D](#)

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- e** Plan, record, run, and edit Macros. [CIS.HS.11.1.E](#)

Organize, aggregate, and manipulate data using advanced spreadsheet features. [CIS.HS.11.2](#)

- a** Create worksheet structures using formulas and advanced features. (e.g., logical statements, vLookup, financial, statistical functions, and named ranges). [CIS.HS.11.2.A](#)

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- b** Interpret data through statistical analysis (e.g., sorting, filtering, forecasting, and pivot tables). [CIS.HS.11.2.B](#)

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- c** Import, export, and share worksheet data. [CIS.HS.11.2.C](#)

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- d** Customize formatting methods, including conditional formatting and other advanced formatting methods. [CIS.HS.11.2.D](#)

Synthesize relational database concepts to design, manage, evaluate, and organize information. [CIS.HS.11.3](#)

- a** Design tables specifying properties for data entry and relationships. [CIS.HS.11.3.A](#)

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- b** Construct multi-table queries to retrieve, organize, and aggregate data to draw conclusions. [CIS.HS.11.3.B](#)

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- c** Design forms and subforms for efficient and effective data entry or retrieval. [CIS.HS.11.3.C](#)

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- d** Design reports and subreports utilizing tables, graphs, sparklines, and pivot tables for displaying meaningful data. [CIS.HS.11.3.D](#)

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- e** Analyze relational data using Structure Query Language (SQL). [CIS.HS.11.3.E](#)

Consider the relationship between different programs to utilize data in one program to the next to create new documents. [CIS.HS.11.4](#)

- a** Utilize spreadsheets, presentation, and database information in word processing documents. [CIS.HS.11.4.A](#)
- b** Utilize word processing, presentation, and database information in a spreadsheet. [CIS.HS.11.4.B](#)
- c** Utilize word processing, spreadsheet, and database information in a presentation. [CIS.HS.11.4.C](#)
- d** Utilize word processing and spreadsheet information in a database. [CIS.HS.11.4.D](#)

Describe the importance of ethical data collection and applicable conclusions. [CIS.HS.11.5](#)

- a** Analyze the privacy practices of data collection and use. [CIS.HS.11.5.A](#)
- b** Analyze the security practices of data collection and use. [CIS.HS.11.5.B](#)

Demonstrate critical thinking skills to integrate information technology tools to access, manage, and create new information. [CIS.HS.11.6](#)

- a** Gather, evaluate, use, and disseminate information from multiple technology sources. [CIS.HS.11.6.A](#)
- b** Create purposeful, digitally designed products (e.g., brochure, presentation, website, portfolio). [CIS.HS.11.6.B](#)

Identify opportunities in an information technology career field including but not limited to entrepreneurial opportunities, responsibilities, education, and certification. [CIS.HS.11.7](#)

- a** Identify information technologies used in various industries. [CIS.HS.11.7.A](#)
- b** Discuss the impact of technology on all career fields. [CIS.HS.11.7.B](#)
- c** Identify common tasks in career fields. [CIS.HS.11.7.C](#)
- d** Discuss career opportunities in information technology career fields. [CIS.HS.11.7.D](#)
- e** Describe the impact of technological change and the importance of lifelong learning in this career field. [CIS.HS.11.7.E](#)
- f** Identify the benefits of industry certification and higher education Programs. [CIS.HS.11.7.F](#)
- g** Identify the necessary skills to succeed in fields using data science. [CIS.HS.11.7.G](#)