

Diocese of Madison

INFORMATION TECHNOLOGY STANDARDS & BENCHMARKS



Grades K-8

Office of Catholic Schools

Introduction:

The most recent iteration of the Information Technology Standards and Benchmarks were originally adopted and released in 2011 for use in all schools in the Diocese of Madison. However, unlike most other curricular areas, Information Technology has seen a breadth of change in both content and how the content is delivered. Devices such as iPads and Chromebooks vastly changed the landscape of Information Technology and how students learn. Thus, a committee was formed in 2015 to evaluate and revise the current Standards and Benchmarks to examine the relevance of the Standards in light of the modern technologies and the expected ways that students learn given such available technologies.

Recognizing that there are many schools that have either not yet adopted newly available devices, or do not yet plan to, the committee continually reflected on the relevance of the Standards and Benchmarks for all learners.

Thus, the Standards and Benchmarks were revised to reflect the current landscape of expected knowledge and skills in the area of Information Technology and remain similar to the 2011 iteration. It is expected that all schools should easily integrate the revised Standards and Benchmarks in to existing curriculum.

However, the revised Information Technology Standards are not written for dedicated Information Technology teachers, given the realization of the committee that there is strong variance among the schools and the employment of a dedicated Information Technology teacher. Therefore, it is up to the program leader or Principal to determine how the Standards and Benchmarks influence curriculum and are reported. Regardless of teaching assignments, all students should be expected to know and be able to accomplish the Benchmarks within the school's curricular program.

Information Technology Standards and Benchmarks Revision Committee Members:

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IT Information Technology Standards

- 1. Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology
 - A Application
 - B Creativity
- 2. Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
- 3. Students apply digital tools to gather, evaluate, and use information.
- 4. Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.
- 5. Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

| | | Kindergarten: | Grade 1: | Grade 2: |
|---|-------------|---|---|-----------------------------------|
| | IT.1. | Students demonstrate creative thinking, | construct knowledge, and develop innova | tive products and processes using |
| | | technology | | |
| Α | Application | | | |
| | | | | |
| В | Creativity | Create original work | Create original work | Create original work |
| | | | | |

| | | Grade 3: | Grade 4: | Grade 5: |
|---|-------------|---|--|--|
| А | Application | | | Recognize the ability to use existing knowledge to generate new products |
| В | Creativity | Create original works as a means of personal expression | Create original works as a means of personal or group expression when prompted | Create original works as a means of personal or group expression |

| | | Grade 6: | Grade 7: | Grade 8: |
|---|-------------|--------------------------------------|-------------------------------------|---|
| Α | Application | Apply existing knowledge to generate | Recognize how to generate new ideas | Apply existing knowlege to generate new |
| | | new products | using existing knowledge | ideas, products, or processes |
| | | | | |
| | | | | |
| В | Creativity | | | |
| | | | | |
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| | | Kindergarten: | Grade 1: | Grade 2: |
|---|---|---|---|--|
| | IT.2. | Students use digital media and environm | ents to communicate and work collaborat | ively, including at a distance, to support |
| | individual learning and contribute to the learning of others. | | | |
| Α | | Recognize that technology can be utilized | Recognize that technology can be utilized | Utilize technology when prompted to |
| | | to communicate | to communicate | communicate |
| | | | | |
| | | | | |
| | | | | |

| | Grade 3: | Grade 4: | Grade 5: |
|---|-------------------------------------|--------------------------------------|---------------------------------------|
| Α | Utilize technology independently to | Recognize the ability to communicate | Utilize technology to communicate and |
| | communicate and publish | and publish collaboratively | publish collaboratively |
| | | | |
| | | | |
| | | | |

| | Grade 6: | Grade 7: | Grade 8: |
|---|---|----------|----------|
| Α | Utilize technology to communicate and | | |
| | publish collaboratively in a variety of media formats | | |

| | | Kindergarten: | Grade 1: | Grade 2: |
|---|-------|--|----------|---|
| | IT.3. | IT.3. Students apply digital tools to gather, evaluate, and use information. | | |
| A | | Utilize digital tools to gather information | 1 | Utilize digital tools to evaluate information |

| | Grade 3: | Grade 4: | Grade 5: |
|---|-----------------------------------|--|--|
| Α | Utilize digital tools to evaluate | Recognize that information sources may | Recognize that information sources may |
| | information within original work | or may not be appropriate for specific tasks | or may not be credible |

| | Grade 6: | Grade 7: | Grade 8: |
|---|--|--|--|
| Α | Select appropriate information sources | Evaluate and select appropriate | Appropriately cite credible sources within |
| | with guidance within original work | information sources within original work | original work |
| | | | |
| | | | |
| | | | |

| | | Kindergarten: | Grade 1: | Grade 2: |
|---|--|---|--|------------------------------------|
| | IT.4. | Students use critical thinking skills to plan | n and conduct research, manage projects, | solve problems, and make informed |
| | decisions using appropriate digital tools and resources. | | | |
| Α | | Identify a problem | Identify how to solve a problem | Identify the solution to a problem |

| | Grade 3: | Grade 4: | Grade 5: |
|---|--|------------------------------------|--|
| Α | Understand the process of research using | Conduct research using appropriate | Utilize research to solve problems using |
| | appropriate digital tools and resources | digital tools and resources | appropriate digital resources |
| | | | |
| | | | |
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| | Grade 6: | Grade 7: | Grade 8: |
|---|---|----------|----------|
| Α | Make informed decisions using | | |
| | appropriate digital tools and resources | | |
| | | | |
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| | | | |

| | | Kindergarten: | Grade 1: | Grade 2: |
|---|----------------|---|---|---|
| | IT.5. | Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. | | |
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| Α | Safety | Recognize that there is a need for safety | Differentiate between safe and unsafe | Demonstrate safety when prompted |
| | | | uses | |
| | | | | |
| В | Attitude | Exhibit awareness of available | Utilize available technologies | Utilize technologies for learning when |
| | | technologies | | prompted |
| | | | | |
| С | Responsibility | Demonstrate responsible and ethical use | Demonstrate responsible and ethical use | Demonstrate responsible and ethical use |
| | | of technology | of technology | of technology |
| | | | | |

| | | Grade 3: | Grade 4: | Grade 5: |
|---|--------|---|--|--|
| Α | Safety | Demonstrate safety independently | I | Recognize the legal component of information |
| В | | Utilize technologies for independent learning | Demonstrate use of technology for collaborative learning | Demonstrate use of technology for collaborative learning |
| С | | Demonstrate responsible and ethical use of technology | · | Demonstrate responsible and ethical use of technology |

| | | Grade 6: | Grade 7: | Grade 8: |
|---|----------------|---|--|---|
| A | Safety | Demonstrate the legal component of information when prompted | | Advocate and practice safe, legal, and responsible use of information and technology |
| В | Attitude | Recognize how to be productive in both independent and collaborative work | independent and collaborative work | Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity |
| С | Responsibility | Recognize personal responsibility in its connection to lifelong learning | Demonstrate personal responsibility in its connection to lifelong learning | Demonstrate personal responsibility for lifelong learning |

| | | | Kindergarten: | Grade 1: | Grade 2: |
|---|---|--|-------------------------------------|---|------------------------------------|
| | IT.6. Students demonstrate a sound understanding of technology concepts, systems, and operations. | | | d operations. | |
| Å | A | | Identify functions of digital tools | Demonstrate knowledge of functions of digital tools | Utilize functions of digital tools |

| | Grade 3: | Grade 4: | Grade 5: |
|---|-----------------------------------|--|--|
| Α | Recognize the differences between | Recognize different functions of digital | Utilize different functions of digital tools |
| | digitial tools | tools | |
| | | | |
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| | Grade 6: | Grade 7: | Grade 8: |
|---|--|--------------------------------------|---|
| Α | Understand and utilize available digital | Understand and utilize digital tools | Efficiently utilize digital tools appropriate |
| | tools | appropriate for specific tasks | for specific tasks |
| | | | |
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