



Go Make Disciples

CATHOLIC SCHOOLS
ARCHDIOCESE OF OKLAHOMA CITY

Archdiocesan Curriculum PK-8 Technology

*Team/Department Outcomes, Course Outcomes, Unit Concepts
and Unit Goals*

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Mission of the Archdiocese of Oklahoma City's Catholic School Office

We, the members of the Office of Catholic Schools of the Archdiocese of Oklahoma City are called together by the Spirit of God to reflect Christ's light and love by sharing our gifts, talents, and resources, to empower others to minister in the educational and spiritual development of students in the Archdiocese of Oklahoma City, so that the reign of God may flourish.

Curriculum of the Archdiocese of Oklahoma City's Catholic School Office

The Catholic Schools of the Archdiocese of Oklahoma City seek to offer excellent academic and co-curricular programs that are infused with religious truth and values reflecting Christ's Gospel call to love one another. We are committed to preparing students for life in today's Church and society. Therefore, our focus is grounded upon the development of the whole person of the student spiritually, intellectually, socially, and physically.

The curriculum of the Catholic Schools of the Archdiocese of Oklahoma City is rooted in the life and teachings of Jesus Christ and responds to His call to make disciples of all peoples. The Catholic Church – and particularly the Church in the United States – has long prioritized Catholic Schools as essential means for the formation of the whole person in the image and likeness of God, in the full freedom and dignity of His creation. The Archdiocese of Oklahoma City carries out this calling and essential function by supporting the Catholic identity of schools, through which the Christian development of each student is nurtured, and by providing guidelines for academic excellence in the context of our Catholic faith.

Now more than ever, these two aspects of Catholic schools go hand in hand. “Young people of the third millennium must be a source of energy and leadership in our Church and our nation. And therefore, we must provide young people with an academically rigorous and doctrinally sound program of education” (USCCB, 2005). The essential elements of the academically rigorous and doctrinally sound program described by the USCCB require a curriculum that is rigorous, relevant, research-based, and infused with Catholic faith and traditions. (*National Standards and Benchmarks for Effective Catholic Elementary and Secondary Schools*, 2012). The Curriculum developed by the Archdiocese of Oklahoma City Department of Catholic Education in collaboration with principals, teachers, and other Catholic educators responds to this call.

Summary of Archdiocesan Curriculum

1. Key facts about the curriculum are provided in the *Overview of the Archdiocesan Technology Curriculum* below.
2. A description of the organization and terms used in the curriculum can be found in *Organization of the Archdiocesan Technology Curriculum* on page 7.
3. The curriculum is organized chronologically by grade. The page numbers for the beginning of the guidelines for each grade are located above.
4. Each grade (PK-8) includes *Course Outcomes*.
 - a. These are expectations that your students should meet after all instruction during the school year. They are long term (whole year) outcomes.
 - b. The Course Outcomes are **not** presented in chronological sequence.
5. Each grade (PK-8) also includes a *Unit Sequence*.
 - a. The units **are** presented in the order they are intended to be taught, with the exception of grades PK-2 where the order may be adjusted per teacher discretion to adjust for thematic, cross-curricular units.
6. Refer to the Team/Department Outcomes for your grade band (PK-2, 3-5, 6-8) for a list of the Technology understandings and practices students are expected to master in the context of learning the content in the units over that three or four-year band.
7. All the curriculum documents you need including unit cover pages and unit planning templates, and additional resources can be found at www.sites.google.com/view/archokccurriculumworkspace.

Overview of the Archdiocesan Subject Curriculum

1. The PK-8 Archdiocesan Technology Curriculum was developed in multiple stages by PK-12 teachers, a team of curriculum trainers from various Archdiocesan schools, and administrators from the Archdiocese of Oklahoma City Catholic School Office. The curriculum development process was initiated with feedback and support from ACE Collaborative Staff at the University of Notre Dame.
2. The PK-12 Archdiocesan Technology Curriculum emphasizes depth of understanding, not breadth of coverage. **Students are expected to be able to thoroughly use the concepts, practices, and skills learned across multiple contexts.**
3. The Archdiocesan Curriculum is intended to set guidelines for the baseline, or "floor" of what students should know and be able to do. Individual teachers and schools can, should, and do go beyond these expectations in response to the learning needs and capability of their students.
4. The Archdiocesan Curriculum encourages teachers to work collaboratively and use a unit-planning approach to plan their instruction for the year.
5. There are 3 levels of the curriculum, each described below: Team/Department Outcomes; Course Outcomes; Unit Concepts, Goals, and Sequence.
6. At each level of outcome, the abbreviation SWBAT means "Students Will Be Able To".
7. The relevant national benchmark (Common Core State Standard) is provided for each outcome at all levels of outcomes.

Archdiocese of Oklahoma City's Catholic School Office's Approach to Curriculum

"Go into the whole world and spread the good news. Go therefore, and make disciples of all peoples. Baptize them and teach them to carry out everything I have commanded you." (Mk. 16:15)

"Catholic schools afford the fullest and best opportunity to realize the fourfold purpose of Christian education, namely to provide an atmosphere in which the Gospel message is proclaimed, community in Christ is experienced, service to our sisters and brothers is the norm, and thanksgiving and worship of our God is cultivated." (US Conference of Catholic Bishops, 2005)

"Catholic schools provide young people with sound Church teaching through a broad-based curriculum, where faith and culture are intertwined in all areas of a school's life. By equipping our young people with a sound education, rooted in the Gospel message, the Person of Jesus Christ, and rich in the cherished traditions and liturgical practices of our faith, we ensure that they have the foundation to live morally and uprightly in our complex modern world." (USCCB, 2005)

Definition of Curriculum

Curriculum has many definitions among education professionals, and many more among the parents and students who experience it. For the purposes of this document, curriculum is most basically defined as “What we teach.” More specifically for this document, it is the concepts and skills that students are expected to understand and demonstrate in each grade and grade band.

Archdiocesan Curriculum

This document contains the *Archdiocesan Curriculum* for Technology for all students in grades PK-8 in the Archdiocese of Oklahoma City. It provides the baseline of expectations for skills and content knowledge that all students should develop. It provides specific expectations for grade bands (called “Team/Department Outcomes” for PK-2, 3-5, 6-8), grades (called “Course Outcomes” for each grade from PK through 8), and units of study (called “Unit Sequence” for each grade or course). More detail on the specific meanings of those categories and their implications for classroom instruction and assessment are provided below.

The expectations provided in the Archdiocesan Curriculum are conveyed as a “floor” and not a “ceiling” of concepts and skills students should experience. It ensures a consistent, coherent, and guaranteed set of concepts and skills for all students in the Archdiocese of Oklahoma City Catholic Schools. A guaranteed and viable curriculum such as this, if implemented fully and consistently, is among the most significant school factors that affect learning (Marzano, 2003).

Classroom Curriculum

Consistent with the Catholic principle of subsidiarity, teachers are responsible for developing the classroom curriculum that their students will experience each day, week, and month throughout the school year. The *Classroom Curriculum* includes the specific activities, simulations, readings, and other content from which students will learn the concepts and skills in the Archdiocesan Curriculum. It also includes the instructional strategies that teachers use to teach the concepts and skills, as well as the assessment strategies used to guide instruction and evaluate student growth. Each teacher’s Classroom Curriculum should be developed under the leadership of the Principal and attend to the needs of his or her students, the expectations and priorities of parents, the teacher’s judgment about what is in the best interest of his or her students, and the particular traditions and charisms of the school

Organization of the Archdiocesan Technology Curriculum

Team/Department Outcomes

Team/Department Outcomes are the broadest level of outcome. They describe what students should know or be able to do at the end of four phases of their education: PK-2, 3-5, 6-8, and 9-12. They are stated broadly as the highest priorities for outcomes for Archdiocese of Oklahoma City students.

They are named “Team/Department” outcomes because they are intended to be used by elementary, intermediate, and middle school planning and instructional teams (e.g., PK-2 teachers) or high school departments as a reference and periodic check to make sure that unit and lesson planning within and across grade levels are staying on track with the highest priorities.

Team/Department Outcomes should be used as a reference and periodic check to make sure that unit and lesson planning within and across grade levels are staying on track with the highest priorities. Teachers should therefore refer to the Team/Department Outcomes when planning instruction to ensure that these high-level outcomes are cultivated in units and courses.

Course Outcomes

Course outcomes describe what students should know and be able to do at the end of each grade (for grades PK-8) and each specific course (for grades 9-12). They are the highest priorities for outcomes for the Archdiocese of Oklahoma City students at each grade.

Course Outcomes should be used by individual teachers and teams of teachers at each school who teach the same grade. They should be used as a reference and periodic check to make sure that unit and lesson planning during the year is on track at a specific grade. They should also be used to ensure that the same content is not being taught at multiple grades.

Course Outcomes are not meant to have a 1:1 connection with units of instruction. Each unit can cover parts of one or more than one Course Outcome. The Course Outcomes are essential outcomes that should be thoroughly taught and learned throughout the year. They are not presented in a chronological sequence for instruction. They are not expected to be mastered in one unit.

Unit Concepts, Goals, and Sequence

Unit Concepts provide the specific concepts that should be the focus of each unit of instruction for each grade (grades PK-8) or course (grades 9-12). These are the “titles” of the units. **Unit Goals** provide the expectations for what students should be able to do with knowledge, skills, and practices related to the unit concept.

Unit Concepts and Unit Goals are meant to provide anchors for the development of units and lessons. They provide specific big ideas, practices, and skills that should be pursued through individual lessons and entire units.

The Units are expected to be taught in the sequence in which they are provided in the Archdiocesan curriculum. Within each unit, Lesson Concepts (see below) can be determined and taught in the sequence determined by the teacher to be most effective for his or her class. Likewise, the approach used to teach each unit and lesson is to be determined by the teacher, considering the content, skills, and practices involved; the resources available; and the needs of his/her students. A broad range of instructional strategies and resources should be considered when designing units and lessons to help students achieve the Unit Goals.

Students are expected to thoroughly **know and be able to use** the concepts, practices, and skills across multiple contexts. Therefore, all lessons and instruction in a given unit should be linked back to the Unit Goal. While it is important to establish factual content knowledge that knowledge should always be learned in the service of the performances students are expected to demonstrate, as articulated in the Unit Goals.

Primary Grades PK-2 Technology

PK-5 Team/Department Outcomes

- Broad statements of the highest priorities for outcomes for Archdiocese of Oklahoma City.
- All students will achieve these outcomes as a result of their **combined** PK-2 experience. Students should always be working toward these outcomes.
- Team/Department Outcomes are not listed in chronological order, or in the order of complexity.
- Team/Department Outcomes should be discussed when grade level teams or partners or the PK-2 faculty of a school meet in professional learning communities or grade level meetings.

PK-5 Technology Team/Department Outcomes

Team/Department Outcomes		Standards
1	SWBAT apply connections between computer science and other subjects	COL 1-5
2	SWBAT apply appropriate productivity technology to organize information	COL 1-3
3	SWBAT conduct age appropriate research using developmentally appropriate technology resources	CPPL 1-1
4	SWBAT demonstrate age appropriate proficiency with keyboards and other input and output devices	CPPL 1-16
5	SWBAT model responsible digital citizenship (legal and ethical behaviors) in the use of technology systems and software	CGEL 1-1
6	SWBAT identify the impact of technology (e.g. social networking, cyber bullying, mobile computing and communication, web technologies, cyber security, and virtualization) on personal life and society	CGEL 1-6
7	SWBAT design an algorithm (set of instructions) using age appropriate programming skills	CTL 1-6 CPPL 1-11

Pre-K & Kindergarten Course Outcomes

- The highest priorities for Pre-Kindergarten & Kindergarten Technology learning for all students.
- All students will achieve these outcomes as a result of their Technology experience in **Pre-K & Kindergarten**.
- Course Outcomes are **not** meant to always have a 1:1 connection with units of instruction. Each unit can cover parts of one or more than one Course Outcome. They are not necessarily expected to be mastered in one unit.
- The Course Outcomes are essential outcomes that should be thoroughly taught and learned throughout the year. They are not presented in a chronological sequence for instruction, and they are not presented in order of complexity.

Pre-K & Kindergarten Technology Course Outcomes

Course Outcomes	Standards for Course Outcomes
1 SWBAT choose prompts to interact with software.	
2 SWBAT show how to login to the computer.	
3 SWBAT model mouse skills.	
4 SWBAT model basic keyboarding skills.	
5 SWBAT name basic concepts of internet safety and digital citizenship.	
6 SWBAT identify the components of the computer.	

Pre-K & Kindergarten Unit Concepts, Goals, and Sequence

- **Unit Concepts** are the specific Technology “big ideas” that students should learn. Each concept should take multiple lessons – an entire unit – to teach.
- **Unit Goals** provide the expectations for what students should **be able to do with** knowledge, skills, and practices related to the unit concept. All lessons should be designed to help students progress toward meeting the Unit Goal.

Pre-K & Kindergarten Technology Unit Concepts, Goals, and Rationale

Unit #	Unit Concept or Question	Unit Goal	Unit Rationale	Standards for Units
1	The Computer and Me	SWBAT interact with the computer lab equipment in an appropriate manner.	Students need to be familiar with the parts of a computer so they can perform tasks on the compute	
2	Internet Safety	SWBAT identify the basic concepts of internet safety.	Students need to be familiar with internet safety to stay safe while using electronics	
3	Interacting with Software	SWBAT choose prompts (such as hyperlinks, app icon, start/stop buttons, okay buttons, done buttons, simple menus) to interact with software.	Students need to interact with software in order to understand concepts	
4	Patterns and Sequences	SWBAT use computer software to complete patterns and sequences (such as putting letters in order, sorting shapes, etc.)	To be written	
5	Introduction to Coding	SWBAT construct a set of step-by-step instructions.	To be written	

1st & 2nd Grade Course Outcomes

- The highest priorities for 1st & 2nd Grade Technology learning for all students.
- All students will achieve these outcomes as a result of their Technology experience in **1st and 2nd Grade**.
- Course Outcomes are **not** meant to always have a 1:1 connection with units of instruction. Each unit can cover parts of one or more than one Course Outcome. They are not necessarily expected to be mastered in one unit.
- The Course Outcomes are essential outcomes that should be thoroughly taught and learned throughout the year. They are not presented in a chronological sequence for instruction, and they are not presented in order of complexity.

1st & 2nd Grade Technology Course Outcomes

Course Outcomes		Standards for Course Outcomes
1	SWBAT interact with a variety of software and programs for various subject areas.	
2	SWBAT model an understanding of print functions.	
3	SWBAT conduct basic research.	
4	SWBAT model hand position and basic keyboarding skills (e.g. delete, shift, enter, capslock).	
5	SWBAT explain basic concepts of internet safety and digital citizenship.	
6	SWBAT recognize the components of a basic algorithm (set of instructions) using age appropriate programming skills.	

1st & 2nd Grade Unit Concepts, Goals, and Sequence

- **Unit Concepts** are the specific Technology “big ideas” that students should learn. Each concept should take multiple lessons – an entire unit – to teach.
- **Unit Goals** provide the expectations for what students should **be able to do with** knowledge, skills, and practices related to the unit concept. All lessons should be designed to help students progress toward meeting the Unit Goal.

1st & 2nd Grade Technology Unit Concepts, Goals, and Rationale

Unit #	Unit Concept or Question	Unit Goal	Unit Rationale	Standards
1	The Computer and Me	SWBAT describe the function of common external computing parts.	We decided to copy this from PK-K because not all schools offer computers as early as PK-K. If they do, this will be more a review. If they do not, this will be the first time these objectives are introduced.	
2	Digital Citizenship	SWBAT identify appropriate and inappropriate ways to use the internet.	Students need to be familiar with digital citizenship and internet safety to stay safe while using electronics.	CGEL 1-1
3	Keyboarding	SWBAT demonstrate proper hand position and basic keyboarding skills.	Students need to know proper hand positions so they can type more accurately.	CPPL 1-16
4	Interacting with Software	SWBAT choose from a variety of software to accomplish a task.	Students need to be able to use computer programs and know what program to use to complete a specific task for various subject areas	COL 1-5
5	Publishing Your Work	SWBAT manipulate files including saving to a specific location, opening previously saved files, and printing.	We placed this unit after research because students need to know what to do with their research after they have found it.	
6	Computer Research	SWBAT conduct basic computer research with teacher scaffolding.	Students need to know how to do research to broaden their minds and learn basic research skills (CPPL 1-1)	CPPL 1-1
7	Interacting with Data	SWBAT collect data and organize it in a chart or graph in order to make a prediction.		
8	Introduction to Coding	SWBAT debug a simple (sequencing and loops) algorithm.	Students need to be exposed to computer science (CTL 1-6) (CPPL 1-11)	CTL 1-6 CPPL 1-11

3rd & 4th Grade Course Outcomes

- The highest priorities for 3rd & 4th Grade Technology learning for all students.
- All students will achieve these outcomes as a result of their Technology experience in **3rd and 4th Grade**.
- Course Outcomes are **not** meant to always have a 1:1 connection with units of instruction. Each unit can cover parts of one or more than one Course Outcome. They are not necessarily expected to be mastered in one unit.
- The Course Outcomes are essential outcomes that should be thoroughly taught and learned throughout the year. They are not presented in a chronological sequence for instruction, and they are not presented in order of complexity.

3rd & 4th Grade Technology Course Outcomes

Course Outcomes	Standards for Course Outcomes
1 SWBAT apply connections between computer science and other subjects using teacher scaffolding.	
2 SWBAT apply appropriate productivity technology to organize information with teacher scaffolding.	
3 SWBAT conduct basic research and be able to cite resources.	
4 SWBAT model keyboarding skills using timed practices and 10 words per minute with 90% accuracy.	
5 SWBAT explain basic concepts of internet safety and digital citizenship (Circle of Grace 4th grade e.g. cyber bullying, blogging, chat rooms, flaming, inappropriate material, netiquette, predators).	
6 SWBAT design a basic algorithm (set of instructions) using age appropriate programming skills with teacher scaffolding.	

3rd & 4th Grade Unit Concepts, Goals, and Sequence

- **Unit Concepts** are the specific Technology “big ideas” that students should learn. Each concept should take multiple lessons – an entire unit – to teach.
- **Unit Goals** provide the expectations for what students should **be able to do with** knowledge, skills, and practices related to the unit concept. All lessons should be designed to help students progress toward meeting the Unit Goal.

3rd & 4th Grade Technology Unit Concepts, Goals, and Rationale

Unit #	Unit Concept or Question	Unit Goal	Unit Rationale	Standards
1	The Computer and Me	SWBAT explain how a computer works (internal and external parts) and how to use it (such as lab procedures, equipment-specific directions, etc.)	Students need to know how to behave and use equipment in the lab and identify the parts of the computer and what they do	
2	Digital Citizenship	SWBAT explain both the positive and negative impacts of interactions on the internet.	Students need to know how to interact safely on all electronics	CGEL 1-1
3	Keyboarding	SWBAT demonstrate proper hand position and basic typing skills with emphasis on speed and accuracy	Students need to know proper hand positions so they can type with speed and accuracy.	
4	Software Skills	SWBAT accomplish a task, with teacher scaffolding, by manipulating the settings, toolbars, menus, and help features.	Students need to be able to use computer programs and know what program to use to complete a specific task for various subject areas	COL 1-5
5	Productivity Software	SWBAT construct an artifact/project using a teacher-created protocol.	Students need to know how to design an artifact/project using appropriate technology because it is the framework for future work	CPPL 2-1
6	Computer Research	SWBAT conduct basic computer research and cite resources with teacher scaffolding.	Students need to know how to do research to broaden their minds and learn research and citing	CPPL 1-1
7	Basic Coding	SWBAT construct an algorithm that includes sequencing, loops, and conditionals.	Students need to be exposed to computer science	CTL 1-6 CPPL 1-11
8	Data Analysis	SWBAT use software to answer a question by analyzing data using the four basic mathematical functions (addition, subtraction, multiplication and division).		

5th Grade Course Outcomes

- The highest priorities for 5th Grade Technology learning for all students.
- All students will achieve these outcomes as a result of their Technology experience in **5th Grade**.
- Course Outcomes are **not** meant to always have a 1:1 connection with units of instruction. Each unit can cover parts of one or more than one Course Outcome. They are not necessarily expected to be mastered in one unit.
- The Course Outcomes are essential outcomes that should be thoroughly taught and learned throughout the year. They are not presented in a chronological sequence for instruction, and they are not presented in order of complexity.

5th Grade Technology Course Outcomes

Course Outcomes	Standards for Course Outcomes
1 SWBAT apply connections between computer science and other subjects.	
2 SWBAT apply appropriate productivity technology to organize information.	
3 SWBAT conduct age appropriate research using developmentally appropriate technology resources.	
4 SWBAT model keyboarding skills using timed practices and 15 words per minute with 90% accuracy.	
5 SWBAT model responsible digital citizenship (legal and ethical behaviors) in the use of technology systems and software	
6 SWBAT identify the impact of technology (e.g. social networking, cyber bullying, mobile computing and communication, web technologies, cyber security, and virtualization) on personal life and society	
7 SWBAT design an algorithm (set of instructions) using age appropriate programming skills.	

5th Grade Unit Concepts, Goals, and Sequence

- **Unit Concepts** are the specific Technology “big ideas” that students should learn. Each concept should take multiple lessons – an entire unit – to teach.
- **Unit Goals** provide the expectations for what students should **be able to do with** knowledge, skills, and practices related to the unit concept. All lessons should be designed to help students progress toward meeting the Unit Goal.

5th Grade Technology Unit Concepts, Goals, and Rationale

Unit #	Unit Concept or Question	Unit Goal	Unit Rationale	Standards
1	The Computer and Me	SWBAT model how a computer system works, including naming internal and external components of computing devices.	To be written.	
2	Digital Citizenship	SWBAT analyze the effects of societal values on computing choices.	Students need to know how to interact safely and behave properly while using electronics.	CGEL 1-6
3	Software Skills	SWBAT accomplish a task, with teacher scaffolding, by manipulating the settings, toolbars, menus, and help features.	Students need to be able to use computer programs and know what program to use to complete a specific task for various subject areas. This objective is the same as the 3rd and 4th grade objective with the understanding that the amount of teacher scaffolding will decrease and the skills that they will be practicing will be age and discipline appropriate for fifth grade.	COL 1-5
4	Productivity Software	SWBAT design an artifact/project using multiple software programs.	Students need to know how to design an artifact/project using appropriate technology because it is the framework for future work.	CPPL 2-1
5	Data Analysis	SWBAT use software to answer a question by analyzing student-collected data using intermediate functions such as averages, maximum and minimums, IF statements, and conditional formatting.	To be written.	
6	Computer Research	SWBAT find an answer to a question using search features of a website.	Students need to know how to do research to broaden their minds and be able to cite their sources.	CPPL 1-1
7	Coding	SWBAT decompose (break down) a larger problem into smaller sub-problems to develop a plan as part of the iterative design process.	Students need to be exposed to computer science.	CTL 1-6 CPPL 1-11

Middle Grades 6-8 Technology

6-8 Team/Department Outcomes

- Broad statements of the highest priorities for outcomes for Archdiocese of Oklahoma City.
- All students will achieve these outcomes as a result of their **combined** 6th-8th grade experience. Students should always be working toward these outcomes.
- Team/Department Outcomes are not listed in chronological order, or in the order of complexity.
- Team/Department Outcomes should be discussed when grade level teams or partners or the 6th-8th grade faculty of a school meet in professional learning communities or grade level meetings.

6-8 Technology Team/Department Outcomes

Team/Department Outcomes		Standards
1	SWBAT design an artifact/project for an assignment using appropriate technology through various subject areas both independently and collaboratively.	CPPL 2-1
2	SWBAT conduct age appropriate research using developmentally appropriate technology resources.	CPPL 1-1
3	SWBAT demonstrate age appropriate proficiency with keyboards and other input and output devices.	CCDL 1-2
4	SWBAT explain responsible digital citizenship (legal and ethical behaviors) in the use of technology systems and software.	CGEL 1-1
5	SWBAT explain the personal impacts and ethical issues, both positive and negative, of technology on personal life and society.	CGEL 1-6
6	SWBAT compare and contrast different algorithms to solve the same problem using age appropriate programming skills.	CTL 2-5 CPPL 2-4
7	SWBAT solve routine hardware problems that occur during everyday computer use.	CCDL 2-5

Middle School Level 1 Course Outcomes

- The highest priorities for Middle School Level 1 technology learning for all students.
- All students will achieve these outcomes as a result of their technology experience in **Middle School Level 1**.
- Course Outcomes are **not** meant to always have a 1:1 connection with units of instruction. Each unit can cover parts of one or more than one Course Outcome. They are not necessarily expected to be mastered in one unit.
- The Course Outcomes are essential outcomes that should be thoroughly taught and learned throughout the year. They are not presented in a chronological sequence for instruction, and they are not presented in order of complexity.

Middle School Level 1 Course Outcomes

Course Outcomes	Standards for Course Outcomes
1 SWBAT design an artifact/project for an assignment in another subject area using appropriate technology and research.	
2 SWBAT identify basic hardware problems you could face while on the computer.	
3 SWBAT illustrate age appropriate proficiency with keyboards and other input and output devices (20 wpm with 90% accuracy).	
4 SWBAT identify the personal impacts and ethical issues, both positive and negative, of technology on personal life and society (cell phones, tablets, computers).	
5 SWBAT create multiple algorithms to solve the same problem using age appropriate programming skills with teacher scaffolding.	

Middle School Level 1 Unit Concepts, Goals, and Sequence

- **Unit Concepts** are the specific Technology “big ideas” that students should learn. Each concept should take multiple lessons – an entire unit – to teach.
- **Unit Goals** provide the expectations for what students should **be able to do with** knowledge, skills, and practices related to the unit concept. All lessons should be designed to help students progress toward meeting the Unit Goal.

Middle School Level 1 Technology Unit Concepts, Goals, and Rationale

Unit #	Estimated # of Days	Unit Concept or Question	Unit Goal	Unit Rationale	Standards for Units
<u>1</u>		Using Software	SWBAT design an artifact/project using appropriate software.	To be written.	
<u>2</u>		Networking	SWBAT explain how local networks work.	Students need to be actively aware of what you do and post on the computer leaves an electronic footprint.	CGEL 1-6
<u>3</u>		Data Analysis	SWBAT explain the processes used to collect, transform, and analyze data to solve a problem using computational tools (e.g., use an app or spreadsheet form to collect data, decide which data to use or ignore, and choose a visualization method.).	Students need to know how to design an artifact/project using appropriate technology because it is the framework for future work.	CPPL 2-1
<u>4</u>		Digital Citizenship	SWBAT discuss the personal impacts and ethical issues, both positive and negative, of technology on personal life and society (cell phones, tablets, computers)	Introduction to career opportunities.	CTL 2-5 CPPL 2-4
<u>5</u>		Algorithms	SWBAT develop programs that include sequences with nested loops and multiple branches.	To be written.	

Middle School Level 2 Course Outcomes

- The highest priorities for Middle School Level 2 technology learning for all students.
- All students will achieve these outcomes as a result of their technology experience in **Middle School Level 2**.
- Course Outcomes are **not** meant to always have a 1:1 connection with units of instruction. Each unit can cover parts of one or more than one Course Outcome. They are not necessarily expected to be mastered in one unit.
- The Course Outcomes are essential outcomes that should be thoroughly taught and learned throughout the year. They are not presented in a chronological sequence for instruction, and they are not presented in order of complexity.

Middle School Level 2 Course Outcomes

Course Outcomes		Standards for Course Outcomes
1	SWBAT design an artifact/project for an assignment in another subject area using appropriate technology and research (collaboratively).	
2	SWBAT explain how you could solve basic hardware problems you could face while on the computer.	
3	SWBAT illustrate age appropriate proficiency with keyboards and other input and output devices (25 wpm with 90% accuracy).	
4	SWBAT identify the personal impacts and ethical issues, both positive and negative, of technology on personal life and society.	
5	SWBAT compare different algorithms to solve the same problem using age appropriate programming skills with scaffolding.	

Middle School Level 2 Unit Concepts, Goals, and Sequence

- **Unit Concepts** are the specific Technology “big ideas” that students should learn. Each concept should take multiple lessons – an entire unit – to teach.
- **Unit Goals** provide the expectations for what students should **be able to do with** knowledge, skills, and practices related to the unit concept. All lessons should be designed to help students progress toward meeting the Unit Goal.

Middle School Level 2 Technology Unit Concepts, Goals, and Rationale

Unit #	Estimated # of Days	Unit Concept or Question	Unit Goal	Unit Rationale	Standards for Units
1		Using Software	SWBAT design an artifact/project using appropriate software.	To be written.	
2		Networking	SWBAT explain how local networks work.	Students need to be actively aware of what you do and post on the computer leaves an electronic footprint (CGEL 1-6)	CGEL 1-6
3		Data Analysis	SWBAT explain the processes used to collect, transform, and analyze data to solve a problem using computational tools (e.g., use an app or spreadsheet form to collect data, decide which data to use or ignore, and choose a visualization method.).	Students need to know how to design an artifact/project using appropriate technology because it is the framework for future work (CPPL 2-1)	CPPL 2-1
4		Digital Citizenship	SWBAT discuss the personal impacts and ethical issues, both positive and negative, of technology on personal life and society (cell phones, tablets, computers)	Introduction to career opportunities (CTL 2-5) (CPPL 2-4)	CTL 2-5 CPPL 2-4
5		Algorithms	SWBAT develop programs that include sequences with nested loops and multiple branches.	To be written.	

Middle School Level 3 Course Outcomes

- The highest priorities for Middle School Level 3 technology learning for all students.
- All students will achieve these outcomes as a result of their technology experience in **Middle School Level 3**.
- Course Outcomes are **not** meant to always have a 1:1 connection with units of instruction. Each unit can cover parts of one or more than one Course Outcome. They are not necessarily expected to be mastered in one unit.
- The Course Outcomes are essential outcomes that should be thoroughly taught and learned throughout the year. They are not presented in a chronological sequence for instruction, and they are not presented in order of complexity.

Middle School Level 3 Course Outcomes

Course Outcomes		Standards for Course Outcomes
1	SWBAT design an artifact/project for an assignment using appropriate technology and research through various subject areas both independently and collaboratively.	
2	SWBAT solve routine hardware problems that occur during everyday computer use.	
3	SWBAT illustrate age appropriate proficiency with keyboards and other input and output devices (30 wpm with 90% accuracy).	
4	SWBAT analyze the personal impacts and ethical issues, both positive and negative, of technology on personal life and society.	
5	SWBAT compare and contrast different algorithms to solve the same problem using age appropriate programming skills (independently or collaboratively).	

Middle School Level 3 Unit Concepts, Goals, and Sequence

- **Unit Concepts** are the specific Technology “big ideas” that students should learn. Each concept should take multiple lessons – an entire unit – to teach.
- **Unit Goals** provide the expectations for what students should **be able to do with** knowledge, skills, and practices related to the unit concept. All lessons should be designed to help students progress toward meeting the Unit Goal.

Middle School Level 3 Technology Unit Concepts, Goals, and Rationale

Unit #	Estimated # of Days	Unit Concept or Question	Unit Goal	Unit Rationale	Standards for Units
<u>1</u>		Using Software	SWBAT design an artifact/project for an assignment using research and multiple software programs.	Students need to know how to design an artifact/project using appropriate technology because it is the framework for future work.	CPPL 2-1
<u>2</u>		Networking	SWBAT describe how information is transmitted as packets through multiple devices over the Internet and networks.	To be written.	
<u>3</u>		Data Analysis	SWBAT describe how different formats of stored data represent tradeoffs between quality and size. [Clarification: compare examples of music, text and/or image formats.]	To be written.	
<u>4</u>		Digital Citizenship	SWBAT analyze the personal impacts and ethical issues, both positive and negative, of technology on personal life and society (cell phones, tablets, computers)	Students need to be actively aware of what you do and post on the computer leaves an electronic footprint.	CGEL 1-6
<u>5</u>		Algorithms	SWBAT develop computational artifacts (such as mobile applications or websites) that address social problems both independently and collaboratively.	Introduction to career opportunities.	CTL 2-5 CPPL 2-4

