

West Lincoln-Broadwell

TECHNOLOGY APPLICATION CURRICULUM

K-8

Implementation 2015-2016



THE BIG IDEA

The West Lincoln-Broadwell Technology Curriculum is designed to promote technological and information literacy as well as critical thinking, problem-solving, and decision-making skills necessary for all individuals to compete in our ever-changing global world. The curriculum will enhance students' conceptual understanding, procedural knowledge, and problem solving skills in technology including its nature, impact, and social, ethical, and human aspects.

Recognizing that technology is multi-disciplinary by nature and has applications in any environment, our curriculum seeks to promote academic success by embedding technology tools and applications into the teaching and learning process rather than attempting to teach skills in isolation. This will enable all students including those who are English Language Learners and those who have special needs to develop technology skills in a wide-range of contexts while simultaneously strengthening understanding of essential academic knowledge and skills. This real-world approach allows classroom teachers to enhance the learning process, enrich the academic experience, and bestow students with the skills necessary to succeed throughout life. Students become active participants in the learning process and learn to efficiently access, explore, apply, and synthesize information in our digital world.



TECHNOLOGY CURRICULUM GOAL AND OBJECTIVES

**Goal: Every student will be technologically literate.
Objectives (by Grade Level)**

Students will...

Kindergarten:

- K.1 ...have an awareness of computer components and basic computer operations:
- K.2 ...be aware of the Internet as a source for information and communication

Grade 1:

- 1.1 ...name computer components and execute basic computer operations:
- 1.2 ...be exposed to the Internet as a source for information and communication through teacher modeling

Grade 2:

- 2.1 ... begin to use the computer as a word processor and be exposed to proper keyboarding techniques
- 2.2 ...use the Internet as a resource for information under teacher direction.
- 2.3 ...contribute to curriculum-based technology projects.

Grade 3:

- 3.1 ...type edit and alter a word processing document

- 3.2 ...use the Internet as a resource for information
- 3.3 ...use technology for solving problems, develop decision-making skills, and participate in project-based learning activities that support curriculum objectives
- 3.4 ... be introduced to the term copyright and issues surrounding it, as well as acceptable uses of technology.
- 3.5 ... be introduced to the spreadsheet environment

Grade 4:

- 4.1 ...use word processing/proper keyboarding techniques to aid in specific tasks and be able to produce a fully-edited, spell checked, finished piece
- 4.2 ...use the Internet as a resource for information
- 4.3 ...will use technology to solve problems, develop decision-making skills, and participate in project-based learning activities that support curriculum objectives
- 4.4 ...follow copyright laws and policies concerning acceptable use.
- 4.5 ...be introduced to the concept and use of a database
- 4.6 ... be introduced to the spreadsheet environment
- 4.7 ...choose the technology most appropriate to solve problems and tasks

Junior High (5th-8th)

Grade 5: Language Arts/Science/Social Studies

- 5.1 ...use word processing/proper keyboarding techniques to aid in specific tasks and be able to produce a fully-edited, spell checked, finished piece
- 5.2 ...use the Internet as a resource for information
- 5.3 ...use technology to solve problems, develop decision-making skills, and participate in project-based learning activities that support curriculum objectives.
- 5.4 ...follow copyright laws and policies concerning acceptable use.
- 5.5 ...use databases to aid in completing specific tasks
- 5.6 ...use spreadsheets to aid in completing specific tasks
- 5.7 ...choose the technology most appropriate to solve problems and tasks

Grade 6: Language Arts/Science/Social Studies

- 6.1 ...use word processing/proper keyboarding techniques to aid in specific tasks and be able to produce a fully edited, spell-checked, grammar-checked finished piece.
- 6.2 ...use the Internet as a resource for information
- 6.3 ...use technology to solve problems, develop decision-making skills, and participate in project-based learning activities that support curriculum objectives.
- 6.4 ...follow copyright laws and policies concerning acceptable use
- 6.5 ...use databases to complete specific tasks
- 6.6 ...use spreadsheets to aid in completing specific tasks and analyze data.
- 6.7 ...choose the technology most appropriate to solve complex problems and multilevel tasks

Grade 7: Language Arts, Science, Social Science

- 7.1 ...use word processing/proper keyboarding techniques to aid in specific tasks and be able to produce a fully-edited, spell checked, grammar checked finished piece.
- 7.2 ...use the Internet as a resource for information
- 7.3 ...use technology to solve problems, develop decision-making skills, and participate in project-based learning activities that support curriculum objectives.
- 7.4 ...follow copyright laws and policies concerning acceptable use.
- 7.5 ...use databases to complete specific tasks.
- 7.6 ...use spreadsheets to aid in completing specific tasks and analyze data.
- 7.7 ...choose the technology most appropriate to solve complex problems and multilevel tasks

Grade 8: Language Arts, Science, Social Studies

- 8.1 ...use word processing/proper keyboarding techniques to aid in specific tasks and be able to produce a fully-edited, spell checked, grammar checked finished piece.
- 8.2 ...use the Internet as a resource for information
- 8.3 ...use technology to solve problems, develop decision-making skills, and participate in project-based learning activities that support curriculum objectives.
- 8.4 ...follow copyright laws and policies concerning acceptable use.
- 8.5 ...use databases to complete specific tasks.
- 8.6 ...use spreadsheets to aid in completing specific tasks and analyze data.
- 8.7 ...choose the technology most appropriate to solve complex problems and multilevel tasks
- 8.8 ...investigate the history of various technologies; research and assess the impacts of technology on individuals, society, and the environment; investigate the interactive and dynamic relationship between people and technology; and to apply technological knowledge and use systems and tools to solve practical problems

**TECHNOLOGY CURRICULUM
IMPLEMENTATION ACTIVITY TABLES**

Goal I --Every student will be technologically literate by grade 8.

K.1 Students will have an awareness of computer components and basic computer operations: parts of the computer keyboard and mouse, turn on and shut down, open a program, names and uses of the following keys: letters, numbers, return, shift, space, command, and arrows exposure to word processing

K.2 Students will be aware of the Internet as a source for information and communication e-mail as a source of communication information obtained online

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE			
District Goal/Obj	Strategy/Activity	Person Responsible	Documentation
1. K.1	Students use age appropriate software for exploration of computer components. Word Processing: 1.Students type first and last name. 2.Students label pictures with print	Technology Teacher/ Classroom Teacher	Teacher observes the following: identifying computer components, turning on/off a computer, running a program, and using appropriate keys
2. K.2	Students communicate with electronic pen pals using district's internal student e-mail service.	Technology Teacher/ Classroom Teacher	Print out of e-mail messages and responses
3. K.2	Students take a virtual field trip like the National Geographic Xpeditions Express tour through Europe, Africa, South America, etc.	Technology Teacher/ Classroom Teacher	Completion of tour. Students answer questions based on knowledge from tour.

<http://www.nationalgeographic.com/xpeditions/hall/index.html?node=37>

Grade 1

1.1 Students will name computer components and execute basic computer operations:

- parts of the computer
- keyboard and mouse
- turn on and shut down
- open a program
- names and uses of the following keys: letters, numbers, return, shift, space, command,

and arrows

- insert CD's and disks appropriately
- begin to use Word Processing and other programs.

1.2 Students will be exposed to the Internet as a source for information and communication through:

- teacher modeling.
- e-mail as a source of communication
- how information can be obtained online.

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE			
District Goal/Obj	Strategy/Activity	Person Responsible	Documentation
1. 1.1	Students practice saving work to folders with teacher guidance.	Technology Teacher/Classroom Teacher	Successful creation and labeling of folders and files
2. 1.2	Word Processing: Students type a complete sentence or thought. They then experiment with changing font size and appearance	Technology Teacher/Classroom Teacher	Successful completion of word processing activities
3. 1.2	Students are guided in the use of a multimedia program like Hyperstudio or Powerpoint. They are assigned a topic and a) draw a picture depicting the topic b) write a sentence about the topic. Students, with teacher assistance, digitize the drawings and the words and make a slide show.	Technology Teacher/Classroom Teacher	Completed slide show
4. 1.2	Continue Pen Pal Activities begun in Kindergarten	Technology Teacher/Classroom Teacher	Print out of e-mail messages and responses
5. 1.2	Extend Internet activities and begin teacher modeled search strategies.	Technology Teacher/Classroom Teacher	Successful information gathering

Grade 2

2.1 Students will begin to use the computer as a word processor and be exposed to proper keyboarding

- techniques
- home row keys
- left and right hand placement
- be able to type and edit a sentence with a capital and punctuation
- change Font and size
- insert a picture

2.2 Students will use the Internet as a resource for information under teacher direction use teacher created bookmarks or Word document with hyperlinks and direct students to specific topic related Web sites to gather information.

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE			
District Goal/Obj	Strategy/Activity	Person Responsible	Documentation
1. 2.1	Students use a teacher created template to publish a picture book or similar project on different topics from across the curriculum.	Technology Teacher/Classroom Teacher	Completed picture books.
2. 2.2	Students do a series of projects on different topics. Example: Work in groups and gather information about ancient Egypt. Find pictures to tie in with writing	Technology Teacher/Classroom Teacher	Worksheet with information, saved pictures
3. 2.2	Use teacher created bookmarks or Word document with hyperlinks and direct students to specific topic related Websites to gather information. Example: Send students to an astronomy site to find the distance each planet is from	Technology Teacher/Classroom Teacher	worksheet

	the sun using Astronomy Web Guide for K-6 students		
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2.3: Students will contribute to curriculum based technology projects

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE			
District Goal/Obj	Strategy/Activity	Person Responsible	Documentation
1. 2.3	Students take information gathered from the Internet (2.2) and use it to create a multimedia presentation. Example: Use information gathered on Ancient Egypt and prepare slides to be combined into a larger slide show. Use any graphics saved from previous lessons. Play Egyptian music, found on the Web, while the slides are presented and the students read their information	Technology Teacher/Classroom Teacher	Completed slide show
2. 2.3	Students use Google Earth to produce a map of their neighborhood in relationship to Illinois, the United States and the world.	Technology Teacher/Classroom Teacher	Completed project with rubric

<http://www.rubrician.com/technology.htm>

Grade 3

3.1 Students will type edit and alter a word processing document:

- size & font
- spell check
- copy, paste, move
- save and retrieve a document
- insert images

3.2: Students will use the Internet as a resource for information

- be aware of key word searches

- use and adding of bookmarks
- use district curriculum links

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE			
District Goal/Obj	Strategy/Activity	Person Responsible	Documentation
1. 3.1	Students go through the writing process but substitute paper and pencil with the computer to create a story.	Technology Teacher/Classroom Teacher	Completed story saved and printed
2. 3.2	Students write an imaginative story. Students learn to select their font and the size of their text. They review how to save and open a document. They also learn how to put a picture/clip art in the story, go to reference, check their spelling and grammar, and print the story	Technology Teacher/Classroom Teacher	Completed story saved and printed
3. 3.2	Students send an e-mail to teacher, parents, or friend. Tie in greeting card with seasonal holiday including a wellwritten, thoughtful message.	Technology Teacher/Classroom Teacher	Received greeting card

Grade 4

4.1: Students will be introduced to the concept and use of a database

- defining records
- defining fields
- collecting/inputting data
- creating a report
- using sort and query

4.2: Students will be introduced to the spreadsheet environment

- record data
- create bar & pie graphs
- identify tools used to collect, analyze, and display data

4.3: Students will choose the technology most appropriate to solve problems and tasks, select appropriate computer application software for a given task, select other technologies or types of software appropriate to a given task use technology as a tool to solve the problem.

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE			
District Goal/Obj	Strategy/Activity	Person Responsible	Documentation
1. 4.1	Students create a database of student names, birthdays, and astrological signs using data collection sheet. Data is entered into Access or Excel to produce a final report sorted by field of choice.	Technology Teacher/Classroom Teacher	Completed data collection forms, Completed database, Sorted and printed report by date
2. 4.2	Students collect and record data in the classroom. They then build a bar graph using a spreadsheet and type a paragraph explaining what they have done.	Technology Teacher/Classroom Teacher	Completed survey, completed spreadsheet and bar graph

<http://www.lessonplanspage.com/MathCIMandMGraphsSpreadsheets36.htm>

4.3: Students will choose the technology most appropriate to solve problems and tasks

- select appropriate computer application software for a given task.
- select other technologies or types of software appropriate to a given task
- technology will be the tool to solve the problem.

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE			
District Goal/Obj	Strategy/Activity	Person Responsible	Documentation
1. 4.3	Students complete multilevel tasks and produce a final product. Example - Create maps with different lists of information: capitals, topological features, population, etc. Document how they obtained the information and create a map with the information attached or combined.	Technology Teacher/Classroom Teacher	Completed map with information

	Select type of presentation software such as Microsoft Word, Appleworks, Hyperstudio, Kidspiration, Inspiration, Powerpoint, etc.		
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Grade 5

5.1 Students will use word processing/proper keyboarding techniques to aid in specific tasks and be able to produce a fully-edited, spell checked, finished piece

- writing compositions
- note taking
- Internet research collection
- desktop publishing

5.2 Students will use the Internet as a resource for information

- conduct and narrow key word searches
- use online references
- use and adding of bookmarks
- use district curriculum links

5.3: Students will use technology to solve problems, develop decision-making skills, and participate in project-based learning activities that support curriculum objectives

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE			
District Goal/Obj	Strategy/Activity	Person Responsible	Documentation
1. 5.1	Use MS Word, Publisher, Appleworks, other application to create an attractive and informative flyer advertising an event. Describe the event, share info about your organization, date, time, place, what to bring etc	Technology Teacher/Classroom Teacher	Completed flyer

2. 5.2	Collaborate with fellow student(s) to create a newsletter. Assign jobs such as editor, layout designer, proofreader, etc. Distribute throughout classroom and other classes	Technology Teacher/Classroom Teacher	Completed newsletter
3. 5.3	As part of a unit on a country students chose a specific country and find the top ten reasons to visit that country using trade books, reference books, Internet, on-line databases, and other resources. In teams of two they create a Powerpoint slide shows to persuade vacationers to visit their country.	Technology Teacher/Classroom Teacher	Slide Planner sheet, completed vacation packet, completed Powerpoint with citations

5.4: Students will follow copyright laws and policies concerning acceptable use.

All activities should be checked for plagiarism, acceptable use, citing resources, etc.

5.5: Students will use databases to aid in completing specific tasks

- defining records
- defining fields
- collecting/inputting data
- creating a report
- using sort and query.

5.6: Students will use spreadsheets to aid in completing specific tasks

- record data
- create bar & pie graphs
- identify tools used to collect, analyze, and display data
- insert a graph into a published piece

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE			
District Goal/Obj	Strategy/Activity	Person Responsible	Documentation

1. 5.4	Students visit a Web site regarding copyright issues and cite reasons one should not plagiarize..	Technology Teacher/Classroom Teacher	Discussion
2. 5.5	Students collect data from their own weather station and/or the Internet. Chart ten different world cities over a two month period, recording high/low temperature, precipitation, barometric pressure, and humidity. Manipulate data to produce reports illustrating the climate of a world city and compare it to Lincoln.	Technology Teacher/Classroom Teacher	Completed data collection forms, completed database, sorted and printed report by temperature
3. 5.6	This year students use Candy Hearts. Using a spreadsheet application students create a tally sheet, enter data, and create a chart	Technology Teacher/Classroom Teacher	Completed spreadsheet and bar graph

Grade 6

6.1: Students will use word processing/proper keyboarding techniques to aid in specific tasks and be able

- to produce a fully-edited, spell checked, grammar checked finished piece
- writing compositions
- note taking
- Internet research collection
- desktop Publishing

6.2: Students will use the Internet as a resource for information

- conduct and narrow key word searches
- use online references
- use and adding of bookmarks
- use district curriculum links
- include citations

6.3: Students will use technology to solve problems, develop decision-making skills, and participate in project-based learning activities that support curriculum objectives

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE			
District Goal/Obj	Strategy/Activity	Person Responsible	Documentation
1. 6.1	Students create a brochure on a theme being studied in class, such as a travel brochure, a skill such as skate boarding, pets, sports, etc. Included are headers, footers, multi-columns, over 100 words, and three graphics with citations.	Technology Teacher/Classroom Teacher	Completed brochure
2. 6.2	Teacher creates a word processing document with intentional spelling and grammatical errors, which students have to correct.	Technology Teacher/Classroom Teacher	Printed fixed paragraphs

6.3: Students will follow copyright laws and policies concerning acceptable use

6.4: Students will use spreadsheets to aid in completing specific tasks and analyze data

- record data
- create bar & pie graphs

- identify tools used to collect, analyze, and display data
- insert a graph into a published piece

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE			
District Goal/Obj	Strategy/Activity	Person Responsible	Documentation
1. 6.3	Students select a copyright Web site and cite five strategies to follow copyright laws and to avoid plagiarism.	Technology Teacher/Classroom Teacher	Discussion
2. 6.4	Use a spreadsheet to show the possible distribution for the sums of a roll of numbered cubes. Think about the question. List possibilities. Simulate random rolls. Record results in spreadsheet. Make bar graphs from the data. Analyze results. Which sum occurred most frequently when you rolled 10 times? Which occurred most frequently when you rolled 100 times? If they are different, how can you explain the difference? Calculate the probability of each sum occurring.	Technology Teacher/Classroom Teacher	Completed spreadsheets and bar graphs, completed analysis sheets

6.5: Students will use databases to complete specific tasks

- defining records
- defining fields
- collecting/inputting data
- creating a report
- using sort and query
- analyze data

6.6: Students will choose the technology most appropriate to solve complex problems and multilevel tasks review all possible technologies available to solve a problem select most appropriate technology for a given problem attempt to use technology to assist in solving the problem.

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE			
District Goal/Obj	Strategy/Activity	Person Responsible	Documentation
1. 6.5 6.6	Find out your weight on other planets, moons, and stars while learning about the difference between mass and weight. Students go to the Exploratorium site and enter their weight. It automatically calculates the weight on the other planets. Collect data in a database/spreadsheet, and make charts.	Technology Teacher/Classroom Teacher	Completed charts

Grade 7

7.1: Students will use word processing/proper keyboarding techniques to aid in specific tasks and be able to produce a fully edited, spell checked, grammar checked finished piece

- writing compositions
- note taking
- Internet research collection
- desktop Publishing

7.2: Students will use the Internet as a resource for information

- conduct and narrow key word searches
- use online references
- use and adding of bookmarks
- use district curriculum links
- include citations

7.3: Students will use technology to solve problems, develop decision-making skills, and participate in project-based learning activities that support curriculum objectives. Focus on critical thinking and programming skills.

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE			
District Goal/Obj	Strategy/Activity	Person Responsible	Documentation
1. 7.1	Students write a book report with a twist it must be done in a multimedia format.	Technology Teacher/Classroom Teacher	Completed charts

7.4: Students will follow copyright laws and policies concerning acceptable use

7.5: Students will use databases to complete specific tasks

- defining records
- defining fields
- collecting/inputting data
- creating a report
- using sort and query
- analyze data

7.6: Students will use spreadsheets to aid in completing specific tasks and analyze data

- record data
- create bar & pie graphs
- identify tools used to collect, analyze, and display data
- insert a graph into a published piece

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE			
District Goal/Obj	Strategy/Activity	Person Responsible	Documentation
1. 7.4	All activities should be checked for plagiarism, acceptable use, citing resources, etc.	Technology Teacher/Classroom Teacher	Teacher inspection
2. 7.5 7.6	Students use Excel program to develop a grade book program for their teacher to use for a specific project.	Technology Teacher/Classroom Teacher	Working grade book

7.7: Students will choose the technology most appropriate to solve complex problems and multilevel tasks

- review all possible technologies available to solve a problem
- select most appropriate technology for a given problem
- attempt to use technology to assist in solving the problem.

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE			
District Goal/Obj	Strategy/Activity	Person Responsible	Documentation

1. 7.7	Students visit Whodunnit1 Web site to study the objects related to a crime. They decide the appropriate strategy to solve the crime including: observation, classification, comparison, measurement, prediction, interpretation of data, and drawing inferences in an attempt to solve the crime.	Technology Teacher/Classroom Teacher	Completed work sheets, proof of crime solved
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<http://www.cyberbee.com/whodunnit/crime.html>

Grade 8

8.1: Students will use word processing/proper keyboarding techniques to aid in specific tasks and be able to produce a fully edited, spell checked, grammar checked finished piece

- writing compositions
- note taking
- Internet research collection
- desktop publishing
- research paper

8.2: Students will use the Internet as a resource for information

- conduct and narrow key word searches
- use online references
- use and adding of bookmarks
- use district curriculum links
- include citations

8.3: Students will use technology to solve problems, develop decision-making skills, and participate in project-based learning activities that support curriculum objectives. Focus on critical thinking and programming skills

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE

District Goal/Obj	Strategy/Activity	Person Responsible	Documentation
1. 8.1	Given a list 10 words, students use word processing to write a script for a TV commercial using all of the words. The commercial is typed out in a script format showing actions and dialogue.	Technology Teacher/Classroom Teacher	Completed work sheets, proof of crime solved
2. 8.2	Students research a historical figure currently being studied using Internet and print resources		Completed timeline, biography, database, poster, and bibliography
3. 8.3	Students plan and create a short movie using imovie or MovieMaker software.		Completed movies

8.4: Students will investigate the history of various technologies; research and assess the impacts of technology on individuals, society, and the environment; investigate the interactive and dynamic relationship between people and technology; and to apply technological knowledge and use systems and tools to solve practical problems. Students will understand the nature and role of technology understand how technological systems are designed, used, and controlled be able to value the benefits and assess the risks associated with technology and be able to respond rationally to ethical dilemmas caused by technology acquire the skills necessary to make decisions as citizens, consumers, and employees in a technological society

TECHNOLOGY IMPLEMENTATION ACTIVITY TABLE			
District Goal/Obj	Strategy/Activity	Person Responsible	Documentation
1. 8.4	Students research the history of technology and the impact of technology on life in the 20th century. They then design a Web page or Powerpoint with findings and present to class or school.	Technology Teacher/Classroom Teacher	Completed project and report

