Computers
Grade 6

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Superintendent of Schools:
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Grade 6 Computers

Course Description

Grade 6 Computers will build off the skills and knowledge the students have attained during the previous years' courses. Students will continue to utilize the Google platform including Google Classroom. The 6th grade memoirs is a year-long assignment which culminates with each student publishing their own memory book from their last year at Highland. Internet Safety, Cyberbullying, and Social networks is a crucial unit for this age group and should prepare students for the challenges they will face as they move up to the middle/high school. Another essential skill 6th graders will be expected to master is evaluating websites when doing Internet research. Students have more information than ever at their fingertips but finding trustworthy sources is not easy. Being able to create a Works Cited page will also be expected. Students will be introduced to digital photography and use Adobe Photoshop Elements to edit, manipulate and create an original computer art piece.

Suggested Course Sequence:

Unit 1: *Internet Safety, Cyberbullying, and Social Networks, Presentation Software and video (12 weeks) *
Unit 2: *Evaluating Websites, Internet Research, Publisher (10 weeks)*
Unit 3: *Digital Photography and Adobe Photoshop Elements (8 weeks)*
Unit 4: *Sixth Grade Memoirs, Google Suite, Importing Images (10 weeks)*

Pre-Requisites: *Computers 1-5*

* Some class time will be lost due to assessments such as Performance Series

Content Area:	Computers
Unit Title:	Unit 1: Internet Safety, Cyberbullying, and Social Networks, Presentation Software and video
Target Course/Grade Level:	Grade 6

Unit Summary: This is a very important topic which was introduced in 3rd grade and is re-visited each year. For 6th graders it is even more important and is studied in-depth. Students will take a survey and the results will be reviewed and discussed with the computer teacher and guidance counselor. Students will be responsible for creating a short video, PowerPoint, or pamphlet as a guide about Internet Safety.

Interdisciplinary Connections: Language Arts Literacy, Comprehensive Health and Physical Education

21ˢᵗ century themes and skills:	Technology Skills, Creativity and Innovation, Life and Career Skills, Information Literacy
	9.2.8.B.3 Evaluate communication, collaboration, and leadership skills that can be developed through school, home, work, and extra curricular activities for use in a career.
	9.3.12.ARAV.2 Demonstrate the use of basic tools and equipment used in audio, video and film production.
	9.3.12.ARAV.4 Design an audio, video and/or film production.
	9.3.12.ED.1 Apply communication skills with students, parents and other groups to enhance learning and a commitment to learning.
	9.3.12.ED.2 Demonstrate effective oral, written and multimedia communication in multiple formats and contexts.
	9.3.ST.6 Demonstrate technical skills needed in a chosen STEM field

Standards
8.1 Educational Technology
All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively to create and communicate knowledge.

CPI#	Cumulative Progress Indicator (CPI)
8.1.8.A.1	Demonstrate knowledge of a real world problem using digital tools.
8.1.8.A.2	Create a document (e.g. newsletter, reports, personalized learning plan, business letters or flyers) using one or more digital applications to be critiqued by professionals for usability.
8.1.8.B.1	Synthesize and publish information about a local or global issue or event
8.1.8.D.1	Understand and model appropriate online behaviors related to cyber safety, cyber bullying, cyber security, and cyber ethics including appropriate use of social media.
8.1.8.D.2	Demonstrate the application of appropriate citations to digital content.
8.1.8.D.3	Demonstrate an understanding of fair use and Creative Commons to intellectual property.
8.1.8.D.5	Understand appropriate uses for social media and the negative consequences of misuse.
8.1.8.F.1	Explore a local issue, by using digital tools to collect and analyze data to identify a solution and make an informed decision.

Unit Essential Questions	Unit Enduring Understandings
· How can we stay safe and keep our information private when on-line? · What effects can misuse of social networks and cyberbullying have on students' futures? · What are the most important lessons to remember for future social network users?	· Digital Footprints last forever · What to do if victimized by cyberbullying · Possible consequences for cyberbullying

Unit Learning Targets

Students will…

- Understand how decisions they make on-line now can effect their future
- Know the possible consequences of cyberbullying
- Be confident in what to do should they become a victim of cyberbullying
- Create a guide to responsible social network use and cyberbullying
- Edit a short video clip
- Create a pamphlet using Publisher
- Insert video clips into PowerPoint

Summative Assessment (X days)

On-line safety quiz
On-line safety guide (PowerPoint, Video, or Pamphlet)

Equipment Needed:	Faronics Insight, Internet Access, Projector, Digital video camera, Microsoft Publisher and PowerPoint/Google Slides
Teacher Resources:	Discovery Education Streaming, YouTube, EdPuzzle, Microsoft Publisher, Microsoft PowerPoint, Google slides, Microsoft MovieMaker

Formative Assessments

- Teacher Observation
- Blog Assignment
- Projects

Modifications:

·   **Special Education Students**
Allow spelling errors in assignments
Rephrase questions, directions, and explanations
Provide hard copies of direction sheets
Allow extended time to answer questions and for assignments
Accept participation at any level
Follow IEP accommodations/modifications

·   **English Language Learners**
Assign a buddy as needed, same language or English speaking
Allow errors in speaking and writing
Rephrase questions, directions, and explanations
Allow extended time to answer questions
Modify assignments as necessary
Accept participation at any level, even one word

·   **At-Risk Students**
Provide extended time to complete tasks
Consult with Guidance Counselors and follow I&RS procedures/action plans
Consult with classroom teacher(s) for specific behavior interventions
Provide rewards as necessary

·   **Gifted and Talented Students**
Provide extension activities
Allow students to act as "teachers" for their peers
Build on students' intrinsic motivations

Lesson #	Lesson Name	Time frame (hours/days)
1	Review and Computer 6 Intro	1 period
2	Google Review and Memoir Intro	1 period
3	Social networking and Cyberbullying Intro and Discussion	1 period
4	Social Networking Survey	1 period
5	Survey results discussion and PowerPoint/Video with Guidance Counselor	2 periods
6	Video camera usage, Publisher and Power Point Lessons	1-2 periods

7	Video Editing and Project Requirements	1 period
8	Students work on Project	2-3 periods

Teacher Notes: Coordinate lessons with Guidance Counselor
Use survey results in the lessons
Give students options for the end project

Curriculum Development Resources
Click links below to access additional resources used to design this unit:

http://www.state.nj.us/education/cccs/standards/8/8.pdf

Content Area:	Computers	

Unit Title:	Unit 2: Evaluating Websites, Internet Research, Publisher and PowerPoint/Google Slides

Target Course/Grade Level:	Grade 6

Unit Summary: Internet research and evaluating websites is a crucial skill for students as they move forward with their education. Being able to search and analyze on-line sources will enable them to succeed in any subject that requires research. With the vast amount of information available on-line, it is more important than ever for students to be able to navigate the Internet and use appropriate sources.

Interdisciplinary Connections: Language Arts Literacy, Social Studies, Science

21ˢᵗ century themes and skills:	Technology Skills, Creativity and Innovation, Life and Career Skills, Information Literacy, Media Literacy, Critical Thinking and Problem Solving
	9.2.8.B.3 Evaluate communication, collaboration, and leadership skills that can be developed through school, home, work, and extra curricular activities for use in a career.
	9.3.ITWD.10 Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications.
	9.3.ST.2 Use technology to acquire, manipulate, analyze and report data.
	9.3.ST.6 Demonstrate technical skills needed in a chosen STEM field.
	9.3.12.ED.1 Apply communication skills with students, parents and other groups to enhance learning and a commitment to learning.
	9.3.12.ED.2 Demonstrate effective oral, written and multimedia communication in multiple formats and contexts.

Standards
8.1 Educational Technology
All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively to create and communicate knowledge.

CPI#	Cumulative Progress Indicator (CPI)

8.1.8.A.1	Demonstrate knowledge of a real world problem using digital tools.
8.1.8.A.2	Create a document (e.g. newsletter, reports, personalized learning plan, business letters or flyers) using one or more digital applications to be critiqued by professionals for usability.
8.1.8.B.1	Synthesize and publish information about a local or global issue or event
8.1.8.D.2	Demonstrate the application of appropriate citations to digital content.
8.1.8.D.3	Demonstrate an understanding of fair use and Creative Commons to intellectual property.
8.1.8.D.4	Assess the credibility and accuracy of digital content.
8.1.8.E.1	Effectively use a variety of search tools and filters in professional public databases to find information to solve a real world problem.

Unit Essential Questions
- How can we be sure that an on-line source is reliable for research purposes?
- How has the Internet made research but easier also more difficult?
- How can we ensure that we don't plagiarize when writing research papers?

Unit Enduring Understandings
- You can't believe everything you read on-line
- Every website you use for research should be analyzed thoroughly if you're not sure of the publisher
- On-line sources used for research must be given credit for images as well as information
- Works Cited list should be included at the end of a research project

Unit Learning Targets
Students will…
- Refine their search to narrow down their results
- Use a variety of databases and search engines effectively
- Analyze on-line resources for reliability
- Pull important information from a variety of website
- Take effective notes which allows them to avoid plagiarizing
- Keep track of all sources for a Works Cited list
- Use photo credits for every image taken form the Internet

Summative Assessment (X days)
Research Brochure or Powerpoint/Google Slide
Evaluating Sources Quiz

Equipment Needed:	Faronics Insight, Internet Access, Projector, Digital video camera, Microsoft Publisher and PowerPoint/Google Slides
Teacher Resources:	YouTube, EdPuzzle, Microsoft Publisher, Microsoft PowerPoint, Google, Computer Lab Page

Formative Assessments
· Teacher Observation
· Blog Assignment
· Worksheets

Modifications:
· **Special Education Students**
Allow spelling errors in assignments
Rephrase questions, directions, and explanations
Provide hard copies of direction sheets
Allow extended time to answer questions and for assignments
Accept participation at any level
Follow IEP accommodations/modifications
· **English Language Learners**
Assign a buddy as needed, same language or English speaking
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· **At-Risk Students**
Provide extended time to complete tasks
Consult with Guidance Counselors and follow I&RS procedures/action plans
Consult with classroom teacher(s) for specific behavior interventions
Provide rewards as necessary
· **Gifted and Talented Students**
Provide extension activities
Allow students to act as "teachers" for their peers
Build on students' intrinsic motivations

Lesson #	Lesson Name	Time frame (hours/days)
1	Evaluating Websites Intro and Presentation	2 periods

2	Analyzing Websites Activity and Worksheet	1 period
3	Quiz and Project intro	1 period
4	Effective Search Engine Usage/Begin research	1 period
5	How to Keep Track of Sources/Research	1 period
6	Independent Research	1-2 periods
7	Project Work	2-3 periods

Teacher Notes:
Fake websites to use for analyzing activity:
zapatopi.net/treeoctopus/
http://www.dhmo.org/facts.html
http://www.umbachconsulting.com/miscellany/velcro.html
http://allaboutexplorers.com/

Curriculum Development Resources
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<tr><td colspan="2" style="background-color:black"></td></tr>
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<td>Content Area:</td>
<td>Computers</td>
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<tr>
<td>Unit Title:</td>
<td>Unit 3: Digital Photography and Adobe Photoshop Elements</td>
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<tr>
<td>Target Course/Grade Level:</td>
<td>Grade 6</td>
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Unit Summary: The use of digital cameras is becoming more and more common for the students with their access to smart phones. This unit will enable students to take better photos and use their cameras for a wide variety of uses. Adobe Photoshop Elements is a very powerful program for editing and manipulating photos, it allows students to get creative with even very simple photos that they have taken. At the end of the unit each student will have created their own masterpiece combining one of heir own digital photographs with on-line photos using Photoshop.

I**nterdisciplinary Connections:** Visual Arts

21st century themes and skills:	Technology Skills, Creativity and Innovation, Life and Career Skills, Critical Thinking and Problem Solving
	9.2.8.B.3 Evaluate communication, collaboration, and leadership skills that can be developed through school, home, work, and extra curricular activities for use in a career.
	9.3.12.ARVIS.3 Analyze and create two and three dimensional visual art forms using various media.
	9.3.12.ED.1 Apply communication skills with students, parents and other groups to enhance learning and a commitment to learning.
	9.3.12.ED.2 Demonstrate effective oral, written and multimedia communication in multiple formats and contexts.
	9.3.ST.6 Demonstrate technical skills needed in a chosen STEM field.

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8.1.8.D.2	Demonstrate the application of appropriate citations to digital content.
8.1.8.D.3	Demonstrate an understanding of fair use and Creative Commons to intellectual property.

Unit Essential Questions	Unit Enduring Understandings
· How can we use digital photography to enhance projects? · How does editing software allow us to make original pieces of computer art?	· Trying new things independently is the best way to learn new technology · Don't be afraid to make mistakes, learn from them

Unit Learning Targets
Students will…
· Use digital cameras independently
· Transfer images from a camera to their computer
· Edit their images using Photoshop Elements
· Crop images
· Move image from one photo into another
· Apply filters to an image
· Create a unique computer art piece using Photoshop Elements
· Track each step of the process to be able to explain how they created their piece

Summative Assessment (X days)
Photoshop Project

Equipment Needed:	Faronics Insight, Internet Access, Projector, Digital video cameras, AdobePhotoshop Elements
Teacher Resources:	YouTube tutorials, EdPuzzle, Adobe Photoshop Elements, Computer Lab Page http://tv.adobe.com/show/learn-photoshop-elements-11/

Formative Assessments
· Teacher Observation
· Blog Assignment

Modifications:
- **Special Education Students**
  Allow spelling errors in assignments
  Rephrase questions, directions, and explanations
  Provide hard copies of direction sheets
  Allow extended time to answer questions and for assignments
  Accept participation at any level
  Follow IEP accommodations/modifications
- **English Language Learners**
  Assign a buddy as needed, same language or English speaking
  Allow errors in speaking and writing
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- **At-Risk Students**
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  Consult with Guidance Counselors and follow I&RS procedures/action plans
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  Provide rewards as necessary
- **Gifted and Talented Students**
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  Allow students to act as "teachers" for their peers
  Build on students' intrinsic motivations

Lesson #	Lesson Name	Time frame (hours/days)
1	Intro to Photoshop	2 periods
2	Digital Camera Lesson	1 period
3	Photoshop Practice	1 period
4	Project Intro	1 period
5	Independent Project work	3 periods

Teacher Notes: Use previous year's projects as examples
Lots of useful video tutorials available on-line
Allow time for students to experiment with the program and to share tools and filters they discover (can be done via blog)

Curriculum Development Resources
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Content Area:	Computers

Unit Title:	Unit 4: Sixth Grade Memoirs, Google Suite

Target Course/Grade Level:	Grade 6

Unit Summary: Students will be using Google Classroom extensively and it is a great way to transfer work between home and school. They will also use Google Docs, Drive, and Slides so it is important that they are comfortable using all of these tools. Throughout the school year the students will be keeping track of memorable events in their 6th grade memoir project. Students will include digital pictures that they take, typed memories, favorites lists and additional formatting.

Interdisciplinary Connections: Language Arts Literacy

21st century themes and skills:	Technology Skills, Creativity and Innovation, Life and Career Skills, Critical Thinking and Problem Solving
	9.2.8.B.3 Evaluate communication, collaboration, and leadership skills that can be developed through school, home, work, and extra curricular activities for use in a career.
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8.1.8.D.2	Demonstrate the application of appropriate citations to digital content.
8.1.8.D.3	Demonstrate an understanding of fair use and Creative Commons to intellectual property.

Unit Essential Questions	Unit Enduring Understandings
· How does using cloud based storage like Google Drive make our lives easier? · How can technology help us preserve our memories?	· Organizing data and backing it up is critical. · Technology can be used in a variety of ways to chronicle one's life · Adding digital photographs to projects is an easy way to increase understanding.

Unit Learning Targets
Students will…

· Use digital cameras independently
· Transfer images from a camera to their computer
· Create a cover page image using www.tagxedo.com
· Import images from Google drive, Hard drive, or removable disk
· Use citations for any images students use that are not their own
· Compose well written memoirs and upload them to Google Drive
· Create folders and organize saved work in Google
· Share work with teachers through Google
· Submit assignments in Google Classroom
· Keyboard using the appropriate technique
·

Summative Assessment (X days)
Quarterly and Final Memoirs

Equipment Needed:	Faronics Insight, Internet Access, Projector, Digital video cameras, Word or Docs
Teacher Resources:	Google Classroom, Adobe Photoshop Elements, Computer Lab Page, Word or Docs, Tagxedo

Formative Assessments
· Teacher Observation
· Memoir checks
· Google Drive Checks

Modifications:
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Lesson #	Lesson Name	Time frame (hours/days)
1	Google Suite Review	2 periods
2	Memoir Project Introduction and Explanation	1 period
3	Adding Images and Formatting	1 period
4	Summer Memoir Composition	2 periods
5	Favorites List and Cover Pages	2 periods
6	Final Edits and Publishing	2 periods

Teacher Notes: Year-long project, be sure to check on progress throughout the year. At end of the year students should each have a nice keepsake of memories from their last year in Highland. Students should be encouraged to include as may real images from their year as possible so it is more personal.

Curriculum Development Resources
Click links below to access additional resources used to design this unit:

http://www.state.nj.us/education/cccs/standards/8/8.pdf