5th Grade 1st Quarter

APS Technology Objectives*

5.1.1 – Correlate computer units of measure to storage devices

5.1.2 – Discuss similarities and differences between units of measure and the base 10 system

5.1.3 – Explore correlation between units of measure, base two, and binary logic

5.3.1 – Create and publish a multi-page document that incorporates writing tools

5.5.1 – Apply age appropriate information literacy skills to electronic references

5.5.2 – Research electronic sources using search strategies

5.5. 3 – Cite all electronic references in projects

5.5. 4 – Retrieve information using the Internet

**The APS Objectives listed above are correlated to the 6 areas of the ISTE NETS•S and to the Virginia Computer/Technology Standards of Learning (VA C/T SOL).*

Theme: Hispanic Heritage, Systems (da Vinci 6-week unit)
Enduring Understanding:
Essential Questions:

CONTENT

Early Humans ✦ Ancient Egypt ✦ Systems in the Sky ✦ Exploring Space ✦ Body Systems✦ Place Value ✦ Measurement

School-based Integrated 6-week Unit: da Vinci – Systems: A Way of Life

Integrated Ideas

Units of Measure

Discuss units of measure. Review the units of measure from the base ten system. Introduce computer units of measure (bits, bytes, kilobytes, megabytes, & gigabytes). Discuss similarities and differences.
MS Excel, MS Word

Ancient Egypt

Using information literacy skills and electronic research skills to create and publish a multi-page document about Ancient Egypt.
MS Word

Ancient Egyptian Gods and Goddesses

Create a 5-slide slide show about an Ancient Egyptian god or goddess. Cite all references including image references and websites. Include audio and graphics. This lesson is one performance task of the 5th grade Barcroft da Vinci integrated unit during the first quarter.
MS PowerPoint, Internet

5th Grade 2nd Quarter

APS Technology Objectives*

5.1.4 – Select and combine technology components to prepare assignments

5.3.3 – Use record selection and sort functions of a database to answer questions

5.3.4 – Write simple formulas to calculate spreadsheet information

5.4.1 – Implement a long-term group project that is shared electronically with another group

5.4.2 – Use network communications to publish work

5.5.5 – Exchange information electronically with others

**The APS Objectives listed above are correlated to the 6 areas of the ISTE NETS•S and to the Virginia Computer/Technology Standards of Learning (VA C/T SOL).*

Theme: Golden Goblet / Systems
Enduring Understanding:
Essential Questions:

CONTENT

Ancient Civilization in Asia ✦ Sound and Light ✦ Oceans ✦ Drugs and Alcohol ✦ Multiplication and Division ✦ Worlds

Integrated Ideas

Ancient Asia

Brainstorm ideas using Inspiration. Organize ideas using the Inspiration outline feature. Write a report about Asia and incorporate hyperlinks to websites and images.
Inspiration, MS Word, Internet

Fact-Finding

Students or teachers create a database about Ancient Asia, the Open Ocean, Sound and Light, Drugs and Alcohol, or Worlds. Students enter information into database. Students use the sort and find functions to answer questions about the contents. Students use critical thinking to analyze and draw conclusions.
Appleworks Database, MS Excel

Formulas in a Snap!

Students gather data and write a simple spreadsheet formula to help with multiplication and / or division. Measure items and find averages. Enter various statistics about the ocean and use formulas to calculate quantities (how much food is eaten, how fast *X* moves, how many miles deep the ocean is, etc.), or analyze the speed of sound and light or the amount of time it takes for sound and light to travel to different planets/places.
MS Excel

Collaborative Work

As a class, work to solve a problem over time, and share your findings via the web, television, or email.
Applications will vary.

5th Grade 3rd Quarter

APS Technology Objectives*

5.1.5 – Select and operate peripheral devices (printer, scanner, camera)

5.3.2 – Incorporate brief video clips into documents

5.3.5 – Create hypermedia projects incorporating audio & visuals; share with an audience

5.3.6 – Complete multimedia projects; share with an audience

5.4.3 – Create interactive hypermedia projects with audio & visuals; share with an audience

5.4.4 – Complete multimedia projects; share with an audience

5.6.1 – Use network resources and the Internet to solve a problem

5.6.2 Use simulations to form, test, confirm, disconfirm, and revise hypotheses; model events

**The APS Objectives listed above are correlated to the 6 areas of the National Educational Technology Standards (NETS) and to the Virginia Computer/Technology Standards of Learning (VA C/T SOL).*

Theme: Golden Goblet / Systems, Black & Women's His. Mo.
Enduring Understanding:
Essential Questions:

CONTENT

Ancient Greece ✦ Ancient Rome ✦ Weather and Climate ✦ Structures of Life ✦ Personal hygiene ✦ Fractions ✦ Decimals ✦ Ratios

Integrated Ideas

Weather and Climate

Using a digital camera, capture images of local weather. Explore weather conditions in Rome and Greece. Create a PowerPoint comparing weather and climate locally, in Rome, and in Greece.
Internet, MS PowerPoint, Inspiration

How Does Weather Happen?

Explore weather trends, movements, and natural disasters. Create hypotheses about weather patterns. Use the Internet and video clips about weather occurrences to confirm and disconfirm hypotheses. How can weather trends and forecasts help people plan for the future?
Internet

Ancient Civilizations

Gather information about the various ancient civilizations studied this year. In small, cooperative groups, make a slide show about each civilization as a way to introduce the civilization to next year's 5th graders. Scan pictures as necessary into slide shows. Add hyperlinks to websites that unveil these ancient civilizations. Insert short video clips.
Internet, Scanner, MS PowerPoint, QuickTime

5th Grade 4th Quarter

APS Technology Objectives*

5.6.4 – Identify and debate the advantages and disadvantages of various materials and technologies as they are used

5.3.7 – Participate in creating a small video project; share with an audience

5.4.5 – Participate in creating a small video project; share with an audience

5.6.3 – apply age appropriate critical thinking skills when viewing video

**The APS Objectives listed above are correlated to the 6 areas of the ISTE NETS•S and to the Virginia Computer/Technology Standards of Learning (VA C/T SOL).*

Theme: Golden Goblet / Systems, Asian & P.Am. His. Month
Enduring Understanding:
Essential Questions:

CONTENT

Asia and America ✦ Growth to Trade ✦ Chemistry ✦ SOL Review ✦ Family Life ✦ Probability and Statistics

Integrated Ideas

Is Technology Worthwhile?
Brainstorm a list of various materials and technologies used in society. Through research and experience, develop the advantages and disadvantages each material and technology has. This activity could be done in pairs with one partner supporting the advantages and one partner explaining the disadvantages. As a pair, come to a conclusion whether the item is overall worthwhile. Explain and support your answer.
Inspiration, Internet, MS Word; applications may vary

Making Movies*
Plan a video project from beginning to end. Videos can be made independently or in small groups. Video topics could cover Asia and America, Growth to Trade, Chemistry, SOL Review, or Probability and Statistics. The video should act as a culminating project for any of the above topics.
iMovie, Video Studio

Jeopardy
To review for the SOL tests, have students create questions and answers in Jeopardy format. Use MS PowerPoint to create an interactive Jeopardy game.
MS PowerPoint

*Note: Creating a video entails drafting a storyboard, filming clips, editing footage, adding audio and transitions as necessary, and saving the final product. Video projects are time-intensive, so you may want to focus on one video project for the entire quarter or divide the class into several groups with each group completing one of the projects listed above.