Elementary Social Studies- Integrating Technology - Dr. Martin's class - Spring 2017

Day 1: Google Expeditions and Ozobots

Google Expeditions
Google Expeditions enable teachers to bring students on virtual trips to places like museums, underwater, and outer space. Expeditions are collections of linked virtual reality (VR) content and supporting materials that can be used alongside existing curriculum.
https://docs.google.com/spreadsheets/d/1uwWvAzAiQDueKXkxvqF6rS84oae2AU7eD8bhxzJ9SdY/edit#gid=0

Cost: There is no charge for the expeditions, however you do need to have a device to run the expedition on. If you want to view the expedition in virtual reality mode, then you would need additional devices and goggles for students.

We have found some Google Expeditions that match the state standards. Take a look!

Standard	Google Expedition
2-1.2 Recognize characteristics of the local region, including its geographic features and natural resources.	Habitats (7 Expeditions)
2-1.3 Recognize the features of urban, suburban, and rural areas of the local region.	Immigration and cities (10 Expeditions)
4-1.4 Summarize the accomplishments of the Vikings and the Portuguese, Spanish, English, and French explorers, including Leif Eriksson, Columbus, Hernando de Soto, Magellan, Henry Hudson, John Cabot, and La Salle.	Vikings: Way Of The Warrior (9 Expeditions)
4-5.1 Summarize the major expeditions that played a role in westward expansion including those of Daniel Boone, Lewis and Clark, and Zebulon Pike.	America Expands West (8 Expeditions)
4-5.3 Explain the purpose, location, and impact of key United States acquisitions in the first half of the nineteenth century, including the Louisiana Purchase, the Florida Purchase, the Oregon Treaty, the annexation of Texas, and the Mexican Cession.	Northern Great Plains (5 Expeditions)
5-2.1 Analyze the geographic and economic factors that influenced westward expansion and the ways that these factors affected travel and settlement, including physical features of the land; the climate and natural resources; and land ownership and other economic opportunities.	The Gold Rush (8 Expeditions)
6-4.2 Describe the influence of geography on trade in the African kingdoms, including the salt and gold trades.	Namibia (5 Expeditions)

Created by Joyce Camp and Lauren Seborowski- February 2017

Ozobots

Ozobots are small robots that are programmed through sequences of color. By following the sequence of 2-4 colors, the Ozobots follow paths. You only need markers to code your Ozobots, unless you want to use their app to code the Ozobot.

Cost: Each Ozobot costs about $60. You will receive a USB stick to charge them which can be done from a computer, or wall charging block.

Here are some examples of how you can use Ozobots in the classroom mapped out to the state standards

Standard	Ways to incorporate the use of Ozobots
Standard 4-1: The student will demonstrate an understanding of political, economic, and geographic reasons for the exploration of the New World. **Standard 4-3**: The student will demonstrate an understanding of the conflict between the American colonies and England.	Activity 1: Complete the journey from Europe to the New World
3-1.2 Describe the location and characteristics of significant features of South Carolina, including landforms; river systems such as the Pee Dee River Basin, the Santee River Basin, the Edisto River Basin, and the Savannah River Basin; major cities; and climate regions. **4-1.4** Summarize the accomplishments of the Vikings and the Portuguese, Spanish, English, and French explorers, including Leif Eriksson, Columbus, Hernando de Soto, Magellan, Henry Hudson, John Cabot, and La Salle. **4-5.1** Summarize the major expeditions that played a role in westward expansion including those of Daniel Boone, Lewis and Clark, and Zebulon Pike. **5-5.1** Explain the causes and the course of the Cold War between the Union of Soviet Socialist Republics (USSR) and the United States, including McCarthyism, the spread of communism, the Korean Conflict, Sputnik, the Berlin Wall, the Cuban Missile Crisis, and the Vietnam War.	Activity 2: Create a course using the Ozobots that maps out the progress of one of these events. Include information about each event at the locations where they took place. Use the Ozobots to: Tell a story Sequence events Show paths from one place to another Here is an example: http://portal.ozobot.com/lessons/detail/magellans-journey

Elementary Social Studies- Integrating Technology - Dr. Martin's class - Spring 2017

Day 2: Coding and Integrating ISTE Standards and using the SAMR model

Coding
Some things to know about coding:
- Code is a set of sequential instructions that computers can follow (like a recipe)
- Writing code is like learning how to write in a foreign language
- There are several different coding languages. Python, C+, and Javascript are a few examples of coding languages
- People write code to program many electronic items such as computers, watches, cars
- People who write code, design websites and apps for phones and computers
- People who code are called programmers
- Over the next 5-10 years, the demand for jobs that include the skill of coding or programming will increase
- There are currently not enough programmers to fill available jobs
- Coding is considered part of the computer science curriculum
- South Carolina is launching a computer science curriculum that will be implemented in the 2018-19 school year

From the code.org website: "We live in a world surrounded by technology. And we know that whatever field our students choose to go into as adults, their ability to succeed will increasingly depend on understanding how technology works. Computers are everywhere, changing every industry on the planet. But fewer than half of all schools teach computer science. The basics of computer science also help nurture creativity and problem solving skills, and prepare students for any future career.

Cost: Most coding websites and programs are free. You will need devices to build your code on like computers or iPads/phones

Created by Joyce Camp and Lauren Seborowski- February 2017

Standard	Coding Resources
2-1.1 Identify on a map the location of places and geographic features of the local community (e.g., landforms, bodies of water, parks) using the legend and the <u>cardinal directions.</u>	Activity 1: Use cardinal directions to complete these activities https://studio.code.org/s/course1/stage/4/puzzle/1 https://studio.code.org/s/course1/stage/8/puzzle/1 https://studio.code.org/s/course1/stage/11/puzzle/1 https://studio.code.org/s/course1/stage/13/puzzle/1 https://studio.code.org/s/course1/stage/14/puzzle/1 https://studio.code.org/s/course1/stage/18/puzzle/1
3-2.3 Describe the initial contact, cooperation, and conflict between the Native Americans and European settlers in South Carolina. **3-3.1** Summarize the causes of the American Revolution, including Britain's passage of the Stamp Act, the Tea Act, and the Intolerable Acts; the rebellion of the colonists; and the writing of the Declaration of Independence. **3-4.6** Summarize the positive and negative effects of Reconstruction in South Carolina, including the development of public education; the establishment of sharecropping; racial advancements and tensions; and the attempts to rebuild towns, factories, and farms. **4-2.1** Summarize the cause-and-effect relationships of the Columbian Exchange. **5-1.2** Explain the effects of Reconstruction, including new rights under the thirteenth, fourteenth, and fifteenth amendments; the actions of the Freedmen's Bureau; and the move from a plantation system to sharecropping. **5-3.5** Summarize the reasons for the United States control of new territories as a result of the Spanish American War and the building of the Panama Canal, including the need for raw materials and new markets and competition with other world powers **6-6.6** Explain the effects of the exchange of	Activity 2: Create a story related to one of these objectives using PlayLab The PlayLab can be used to: **Describe** **Summarize** **Explain** Show cause and effect Compare and contrast Critique Formulate an opinion https://studio.code.org/s/course2/stage/17/puzzle/1 https://code.org/playlab

plants, animals, diseases, and technology throughout Europe, Asia, Africa, and the Americas (known as the Columbian Exchange).	
4-1.1 Summarize the spread of Native American populations using the Landbridge Theory. **4-3.3** Summarize the importance of the key battles of the Revolutionary War and the reasons for American victories including Lexington and Concord, Bunker (Breed's) Hill, Charleston, Saratoga, Cowpens, and Yorktown. **4-6.1** Explain the significant economic and geographic differences between the North and South.	Activity 3: Use Minecraft Studio to build your world to show an event in history https://studio.code.org/s/mc/stage/1/puzzle/1

Activity 1:
Explore the coding activities to move characters by using cardinal directions.

Activity 2:
Spend some time learning how to use the PlayLab.
Storyboard an idea that meets one of the standards listed above. Then begin to create the code to make the characters interact with each other.
Parameters:
- Your story must have a title
- Your story can have between 1-6 different characters (actors)
- At least one character must show movement
- At least 2 characters must interact with each other by speaking text to each other

Activity 3:
Spend some time learning how to use Minecraft Studio.
Use the Minecraft Studio to create an environment that represents one of the standards listed above.

Integrating ISTE Standards with your content, and use the SAMR model to create meaningful activities
ISTE is the International Society for Technology in Education. The organization has worked to create a set of standards for the use of technology in teaching and learning used internationally. The standards are recognized by most states as the standards teachers should be using as they integrate technology in their classrooms.

ISTE Standards
The ISTE Standards were just updated in 2016 to reflect the changing student population and skills needed to be productive citizens in the future.
http://www.iste.org/docs/Standards-Resources/iste-standards_students-2016_one-sheet_final.pdf?sfvrsn=0.23432948779836327

ISTE also created a report to support the use of the standards in schools to help teachers understand more fully how to integrate them in their classroom.
http://www.iste.org/docs/Standards-Resources/iste-standards_students-2016_research-validity-report_final.pdf?sfvrsn=0.0680021527232122

SC Standards for Student Learning
http://ed.sc.gov/instruction/standards-learning/

Activity 1:
Match ISTE Standards to South Carolina Standards for Learning
- Divide into groups of 3-4 by the grade level you are most interested in teaching
- Look at the ISTE Standards and make notes to the side about what you think they mean in simple language
- Look at some SS standards for your grade level
- Match a SS Standard with at least one ISTE standard
- Brainstorm a list of activities that you could do to meet those standards (do not think about the device that you need for those activities)

Example:
SC Standard- 3-3.1 Summarize the causes of the American Revolution, including Britain's passage of the Stamp Act, the Tea Act, and the Intolerable Acts; the rebellion of the colonists; and the writing of the Declaration of Independence.
ISTE Standard- Knowledge Constructor
3a. plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.
3b. evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.
3c. curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions
Activities-
Research the causes of the American Revolution using online sources
Determine causes of the American Revolution using multiple perspectives from online sources
Use virtual reality or electronic field trips to visit American Revolution sites to gain perspective on the

causes of the American Revolution

Listen to audio clips from the founding fathers as they explain how the Declaration of Independence was written

Use multiple sources of information from online sources to create a presentation that uses images, video, and/or text from those sources

SAMR Model

The Substitution Augmentation Modification Redefinition (SAMR) model is a means of determining how technology is being used to impact teaching and learning. The SAMR model is a useful tool for helping teachers think about how they are using technology in their classroom, and whether it is just a substitution for paper and pencil, or if it has transformed the way students think about, learn from, and interact with the content through the introduction of technology integrated with the content.
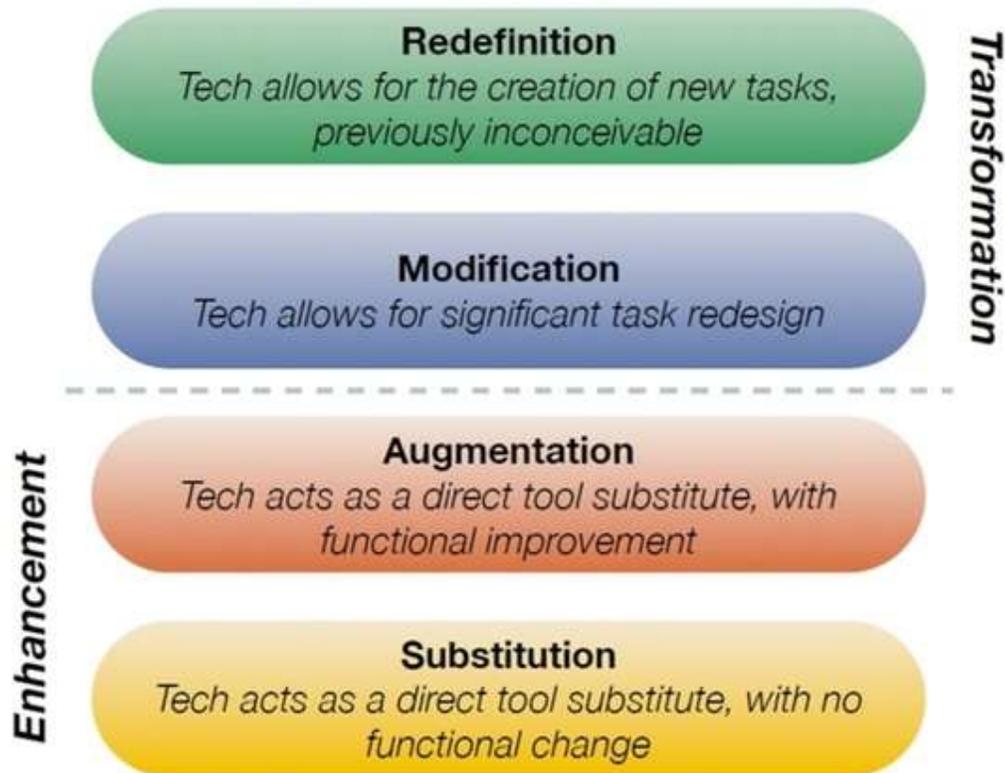
Substitution

- What will I gain by replacing the older technology with the new technology?
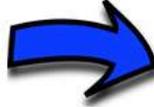
Substitution to Augmentation

- Have I added an improvement to the task process that could not be accomplished with the older technology at fundamental level?
- How does this feature contribute to my design?

Augmentation to Modification

- How is the original task being modified?
- Dees this modification fundamentally depend upon the new technology?
- How does this modification contribute to my design?

Modification to Redefinition

- What is the new task?
- Will any portion of the original task be retained?
- How is the new task uniquely made possible by the new technology?
- How does it contribute to my design?

Activity 2:
Transform activities using the SAMR Model
Using your brainstormed list of activities

- Determine where each activity falls on the SAMR model
- Choose one activity and modify the activity for each level of the model, giving an example of what the product would be at each level

		Definition	Example
Enhancement	**Substitution**	Substitution is the first step in redefining your classroom. During this phase, classroom technology acts as a direct tool substitute, but there is no functional change to the lesson.	A teacher directs students to use Google Earth to locate a place, instead of using an atlas.
Enhancement	**Augmentation**	Augmentation is the second step in digitally enhancing your classroom. In this phase, classroom technology acts as a direct tool substitute, and there is some functional improvement to the lesson.	The teacher instructs students to use Google Earth to measure the distance between two places on a map, instead of using calipers or simply estimating using the scale.
Transformation	**Modification**	The modification step begins to transform your lesson. Modification occurs when classroom technology allows for significant redesign of the project or task in the lesson.	The class would be instructed to use Google Earth layers to research locations on a map.
Transformation	**Redefinition**	During the redefinition phase, the ultimate goal, classroom technology allows for the creation of new tasks and projects that were previously inconceivable within a traditional lesson.	A teacher has students use Google Earth to create narrated guided tours of a location, which they can share online with other students.

Example:

Original Assignment: A hand written paper on the causes of the American Revolution

Substitution: Create a document in Microsoft Word that discusses the causes of the American Revolution

Augmentation: The document includes some images that illustrates the causes

Modification: Students write and publish a blog online that represents a diary-like representation of one of the causes of the American Revolution from the American's viewpoint. Other students comment on the blog from the opposite perspective of the English.

Redefinition: Students create a video that represents one of the events leading up to the American Revolution from the perspective of both the American Colonists and the English Lord Proprietors. They then relate those events to present government and decide if a similar event today would cause the same outcome.

Additional Resources:

Common Sense Media Digital Citizenship Curriculum-
https://www.commonsensemedia.org/educators/digital-citizenship

Kathy Schrock's Guide to Everything- http://www.schrockguide.net/

Examples of SAMR in Social Studies- https://sites.google.com/a/ccpsnet.net/edtechhub/tech-services/samr/samr_high_school/social-studies#hist1

Common Sense Media Resources for Educators- https://www.commonsensemedia.org/educators

The ITC has a great selection of recent South Carolina textbooks. The following is a list of textbooks that include lessons which correspond with the standards selected for the activities.

Pearson my World: Social Studies 2nd Grade (Teacher's Guide) – $181.97
2-1.1 Identify on a map the location of places and geographic features of the local community (e.g., landforms, bodies of water, parks) using the legend and the cardinal directions. – p. 12-17
2-1.3 Recognize the features of urban, suburban, and rural areas of the local region. – p. 18-21

McGraw Hill Who we are as Americans Grade 2 - ~$39
2-1.1 Identify on a map the location of places and geographic features of the local community (e.g., landforms, bodies of water, parks) using the legend and the cardinal directions. – p. 9-24

Houghton Mifflin Social Studies: Neighborhoods - ~$59
2-1.3 Recognize the features of urban, suburban, and rural areas of the local region. – p. 44-56

Houghton Mifflin Social Studies: South Carolina Studies - ~$44
3-1.2 Describe the location and characteristics of significant features of South Carolina, including landforms; river systems such as the Pee Dee River Basin, the Santee River Basin, the Edisto River Basin, and the Savannah River Basin; major cities; and climate regions. – p. 4-15

3-2.3 Describe the initial contact, cooperation, and conflict between the Native Americans and European settlers in South Carolina. – p. 22-39

3-3.1 Summarize the causes of the American Revolution, including Britain's passage of the Stamp Act, the Tea Act, and the Intolerable Acts; the rebellion of the colonists; and the writing of the Declaration of Independence. – p. 45-59

3-4.6 Summarize the positive and negative effects of Reconstruction in South Carolina, including the development of public education; the establishment of sharecropping; racial advancements and tensions; and the attempts to rebuild towns, factories, and farms. – p. 96-117

The South Carolina Story - $99.95
3-1.2 Describe the location and characteristics of significant features of South Carolina, including landforms; river systems such as the Pee Dee River Basin, the Santee River Basin, the Edisto River Basin, and the Savannah River Basin; major cities; and climate regions. – p. 14-43

Created by Joyce Camp and Lauren Seborowski- February 2017

3-2.3 Describe the initial contact, cooperation, and conflict between the Native Americans and European settlers in South Carolina. – p. 44-63

3-3.1 Summarize the causes of the American Revolution, including Britain's passage of the Stamp Act, the Tea Act, and the Intolerable Acts; the rebellion of the colonists; and the writing of the Declaration of Independence. – p. 118-135

3-4.6 Summarize the positive and negative effects of Reconstruction in South Carolina, including the development of public education; the establishment of sharecropping; racial advancements and tensions; and the attempts to rebuild towns, factories, and farms. – p. 222-262

United States Early Years Grade 4
4-1.4 Summarize the accomplishments of the Vikings and the Portuguese, Spanish, English, and French explorers, including Leif Eriksson, Columbus, Hernando de Soto, Magellan, Henry Hudson, John Cabot, and La Salle. – p. 80-97

4-3.3 Summarize the importance of the key battles of the Revolutionary War and the reasons for American victories including Lexington and Concord, Bunker (Breed's) Hill, Charleston, Saratoga, Cowpens, and Yorktown. – p. 158-177

4-5.1 Summarize the major expeditions that played a role in westward expansion including those of Daniel Boone, Lewis and Clark, and Zebulon Pike. – p. 246-251, 272-280

4-6.1 Explain the significant economic and geographic differences between the North and South. – p. 124-145

Pearson my World: Social Studies, 5th Grade - $26.97
5-1.2 Explain the effects of Reconstruction, including new rights under the thirteenth, fourteenth, and fifteenth amendments; the actions of the Freedmen's Bureau; and the move from a plantation system to sharecropping. – p. 330-343

5-2.1 Analyze the geographic and economic factors that influenced westward expansion and the ways that these factors affected travel and settlement, including physical features of the land; the climate and natural resources; and land ownership and other economic opportunities. – p. 352-365

5-3.5 Summarize the reasons for the United States control of new territories as a result of the Spanish American War and the building of the Panama Canal, including the need for raw materials and new markets and competition with other world powers. – p. 374-379

5-5.1 Explain the causes and the course of the Cold War between the Union of Soviet Socialist Republics (USSR) and the United States, including McCarthyism, the spread of communism, the Korean Conflict, Sputnik, the Berlin Wall, the Cuban Missile Crisis, and the Vietnam War. – p. 532-565

World History Ancient Civilizations: Through the Renaissance (Student Ed.) - $65.50
6-4.2 Describe the influence of geography on trade in the African kingdoms, including the salt and gold trades. – p. 376-394
6-6.6 Explain the effects of the exchange of plants, animals, diseases, and technology throughout Europe, Asia, Africa, and the Americas (known as the Columbian Exchange). – p. 468-486

Created by Joyce Camp and Lauren Seborowski- February 2017