

Digital Storytelling in the Content Areas for Special Needs Learners

Meghan Farrell

Introduction

“We need technology in every classroom and in every student and teacher’s hand, because it is the pen and paper of our time, and it is the lens through which we experience much of our world.” – David Warlick¹

When you ask an upper elementary student what they do after school, many of them (as much as I would like them to) will not say curl up with a good book or write in their journal. They will say that they play video games, watch videos on YouTube, play Minecraft, and some of them will even say that they make their own videos or post on social media. While some of us in the paper book loving generations will think that this means that society is losing the art of a good story, this is not necessarily the case. These games and videos that kids love to consume and sometimes even create are stories in themselves. They are engaging to students because of their characters. Students’ lives and free time are still filled with stories, but they are presented and created in different ways. We need to bring this digital format into the classroom to help students express themselves in ways that they are used to and ways that they will use in today’s society.

Bringing digital storytelling into the classroom has many other benefits besides simply engaging the students. It has many implications that help struggling writers to create stories in a way that capitalizes on their strengths, enables them to be more flexible in the editing and revising process, and provides them with structure and support in the aspects of writing that they find most challenging. This unit is designed to use with a small group of struggling fourth grade writers. It is intended to help them build their narrative writing skills while reinforcing science and social studies concepts that they are learning. This unit consists of short mini lessons that can be used at the beginning of the writing period with a small group of struggling students at any point throughout the school year. The content of the writing is specific to the science and social studies content that is part of the fourth grade curriculum at my school, but the lessons can be adapted to incorporate any content. The mini lessons will incorporate iPad technology while teaching Common Core writing skills.

Demographics

I teach a fourth grade classroom with both special education and general education students. My school is in a very diverse suburban area with approximately 37% of students identified as low income students. The students’ ability levels in reading range

from several grades below grade level to above grade level students receiving enrichment services. Many of the students come to fourth grade with limited writing skills. They love telling stories but need more experience writing these stories in narrative form.

I am the special education teacher in a co-teaching inclusive classroom. In this role, I work with a small group of students who are identified special education students with goals in written language specified on their Individualized Education Programs. Included in my groups are general education students who have demonstrated a strong need in written language. These students are very hesitant writers. They lack writing stamina because their writing conventions such as spelling tend to inhibit them from getting their ideas down on the paper. They tend to struggle to come up with ideas for what to write and to organize their writing.

Rationale

The special education students and struggling writers in my classroom have many great ideas but they have a lot of trouble expressing them in writing. They need small group support in their area with direct instruction and time to practice specific writing skills. They have very little endurance when it comes to writing, so the format of providing instruction in quick mini lessons with opportunities for students to practice in a supported environment tends to be very helpful for them.

In a typical fourth grade classroom today, there is very little time allotted for social studies and science instruction, so I always try to integrate these content areas into my English Language Arts instruction whenever I can. This helps my students to practice reading and writing skills while reinforcing the content that we would otherwise have so little time to reinforce throughout the school day. Students can make these concepts their own when they construct narratives revolving around the content. In this unit, students write based on topics in our fourth grade curriculum, including writing about the water cycle from the perspective of a droplet of water, writing a diary entry as though they are a colonist in the Revolutionary War time period, and writing about adaptations for survival from the perspective of a crayfish in our classroom. These topics can be adapted to fit the content in any classroom.

The rationale behind using iPad applications as a means to produce narrative writing is that the applications that I have selected allow students to tell their stories in a very supported way using multimedia formats. In this unit students will be writing in a way that cannot be accomplished using only pencil and paper. They will have the capability to use audio, visuals, and video to tell their story in addition to text. They will also have the capability edit and revise much more freely and flexibly so as not to constrict their writing process. An underlying theme that students should understand throughout the course of this unit is that writing is a recursive process and all of the writing that they complete throughout the unit will be continually revised and improved in small steps. The

technology will help struggling writers to more easily be able to make revisions and improve their writing.

Content

Benefits of Using iPads as an Integral Part of the Writing Process

According to Beth Holland, the use of iPads can redefine the writing process.² Prior to the use of this technology, the writing process mostly consisted of organizing, drafting, editing, revising, and publishing writing using pencil and paper. Many of us still view the writing process in this way. Holland refers to this as “writing 1.0.” With the introduction of computers, writers were able to digitalize this process. Writers were now able to use digital software to create graphic organizers and word processing tools to publish more efficiently. Reviewers were also able to insert comments directly into the writing to communicate feedback more effectively, and writing could be published to the web to reach a larger audience. While the process in many cases became more efficient and arguable improved and enhanced, writers were still accomplishing many of the same things that they could accomplish with pencil and paper in a digital format. Holland refers to this as “writing 2.0.” She argues that with the introduction of iPads into this process, the writing process can now be completely redefined into what she calls “writing 3.0.” Writers can now use modes other than text to organize and draft their writing, such as audio and visual effects, collaborate with other writers, and communicate their ideas beyond the limits of pencil and paper.

According to a study conducted at Longfield Academy in England, a school that has incorporated a 1:1 iPad program, 73% of students and 67% of staff believed that the introduction of iPads into the classroom improved the quality of student work.³ 69% of students felt that the use of the iPad was more motivating. Students expressed that they felt the iPads could be used more in the classroom to help them complete writing assignments instead of using pen and paper, and to create videos.

Useful iPad Applications for Digital Writing

Inspiration Maps

Inspirations Maps is a graphic organizing application that will allow students to organize their ideas prior to writing. It contains useful templates such as character analysis, plot analysis, and cause and effect graphic organizers, but it also allows the user to design their own graphic organizer from scratch. The students can add bubbles and connections to link and organize their ideas in a way that they can easily manipulate and change. With the press of a button they can see their graphic organizer in outline form. Students can also insert images that they can find within the application or take themselves using the iPad camera to present their ideas visually.

One major benefit of using this application over a traditional pencil and paper graphic organizer with my special needs writers is the flexibility that it allows. When my students get locked into the pencil and paper format, they have trouble growing and revising their ideas over time. When they have laid out their ideas on a graphic organizer, they tend to think of their ideas as fixed rather than flexible and ever-changing because of the daunting prospect of erasing or starting over. The process of organizing ideas digitally lends itself to manipulating, moving, deleting, adding, and reorganizing ideas into a constantly revising mind map as your story develops.

Write to the Core

This application is particularly beneficial for younger or special needs writers who have trouble developing their ideas and organizing their writing. Students have the option of selecting opinion, informative/explanatory, or narrative writing. Whichever form of writing they select, the application will provide basic Common Core aligned instruction on that type of writing and show them a model. Then, students can take a picture or drawing related to their writing topic to help them start to think about their ideas. The application then walks them through the steps to write a well-organized piece of writing in the form that they are studying. It will provide them with sentence starters or allow them to create their own sentence starter. Teachers also have the option of creating their own custom sentence frames so that students can produce a piece of writing more specific to a particular classroom assignment.

For example, if students select narrative writing they will first see sentence starter choices for the beginning of their narrative. As always, they can also write their own sentence starter. Once they have selected their sentence starter, they are brought to a screen where they can type out the rest of their beginning. When they are finished with their beginning, they move on to new screens that give them sentence starter choices for the middle and end of their story. Many of the sentence starters are linking words and phrases such as “later,” “finally,” etc. When they are finished, they have the opportunity to self-review and peer review by recording themselves reading their story and listening to their recording to help them edit and revise. When they are finished, they have a published final work with the picture that they have taken that can be saved, printed, or emailed.

This application will be particularly useful to my students, because it allows for creativity while providing the structure and support that my special needs writers need. While my writers are still practicing a new form of writing they usually need supporting in knowing what they should do next and how to keep it organized. This application provides that for them while allowing them the creativity to write their own ideas so that their writing does not become formulaic. It also presents each phase of their writing in a small, manageable step, which is helpful since they tend to get overwhelmed with a large writing task.

iMovie

iMovie is a very engaging application that helps writers to publish their writing digitally using multimedia formats. Students can create a movie using audio, video, still images, and written texts. Students can record their voice telling their story and add still images that they take using the iPad camera or images that they find on the internet. They can also use video that they record using the iPad camera. They can also insert written text as well as visual and sound effects. They can then produce their movie and share it with others.

The application is useful with my students because it helps transform the writing process and bring it into the 21st century. The types of narratives and information that students are exposed to in the real world today often comes in multimedia formats, and producing writing this way can help them to use audio and visuals to enhance their message. The multimedia format also helps to reduce some of the barriers that some of my writers experience when writing using pencil and paper, such as mechanical, spelling, and handwriting constrictions and allows them to present their ideas creatively.

Book Creator

This application also helps students to publish writing using multimedia formats. It relies more heavily on written text instead of audio, but also allows students to present their ideas using writing, pictures, and video. Students can create an eBook and insert written text, photos and videos that they take themselves using the iPad camera or that they gather from the internet, and hand drawings. They can also insert audio so they can record their voice telling their story. Their final product looks like a very polished and engaging eBook.

This application can be very useful to students because it allows them to practice expressing themselves in writing while utilizing other skills that they may have to tell their story, such as drawing, design, and using vocal expression. The nature of writing digitally as opposed to pencil and paper can help struggling writers to edit and revise easily, and to create a published product that they are proud to present to others.

Puppet Pals

Puppet Pals allows users to tell their story by creating their own digital puppet show. Students can select characters from the many categories included on the application such as American history, community, fairy tales, monsters, the wild west, and many more. They can also create their own characters by taking a picture of a drawing, taking a picture of a real person, or selecting a picture from the Internet. Then, students can select the settings that they need, again either from the many diverse settings that are included within the application or from a photo that they take or find on the Internet. Once students have established their characters and settings, they are ready to produce their

puppet show. They press record and manipulate and move the characters as needed while recording their voice telling their story and speaking for the characters. In the end they have a complete puppet show that they can watch and share with others.

Puppet Pals will be useful for my students because it requires them to consider the importance of their characters and setting in telling a story. In order to have a clear and cohesive puppet show with a beginning, middle, and end and dialogue that makes sense, they will have to organize their ideas in writing before they record. However, they are not constricted by the challenges that written text can present to them, and they are able to publish their ideas in a less threatening and more creative format. Students tend to be very engaged by this format and they feel more comfortable taking narrative risks that they don't always take using pencil and paper such as including rich dialogue.

Supporting Struggling Writers

According to Susan de la Paz, students with learning disabilities understand less about the recursive nature of writing than children without learning disabilities.⁴ They tend to write less and often know a lot more information about a topic or have a lot more ideas than they express in their writing. They often do not plan and organize prior to writing. For example, typically developing sixth graders spent an average of two minutes planning their writing while sixth graders with learning disabilities spend less than half a minute. The iPad applications used in this unit can assist students with the planning and organizational process to make it a less labor-intensive and a more fluid process.

It was also found that students with learning disabilities make many more spelling, capitalization, and punctuation errors than their typically developing peers, and have more difficulties with their handwriting. While we often don't think of these traits (especially handwriting) as the most vital to high quality writing, they are significant because studies have found that transcription skills correlate with higher writing quality, and transcription skills accounted for "40% of the variance in writing quality and output in the intermediate grades." Students who struggle with mechanics and transcription tend to produce lower quality writing because they are focused on these lower level skills and less fluent writers can easily forget the ideas that they have developed. The use of technology will help my students so that they can focus on higher level demands instead of the transcription process.

Research on writing instruction for students with special needs has shown that direct and explicit instruction in specific writing skills has made a positive impact. For example, successful direct instruction on revision included explicit instruction in adding, deleting, rewriting, and moving text over the course of three-day lesson cycles. Each revision process was clearly defined, discussed, and modeled, and students had time to practice each process in pairs and then independently. This direct instruction was shown to improve student understanding of the revision process and improved the quality of their

writing. This unit will include this type of direct instruction in specific writing skills while gradually increasing the students' level of responsibility.

Research has also found that instruction in self-regulation procedures was largely beneficial for writers with special needs. The beneficial self-regulation skills that were studied include planning, self-evaluating whether the goals of the writing have been met, and revising. This unit will include strategies for students to regulate and evaluate their own writing as well as the writing of a peer.

Sample Classroom Activities

Sequencing Story Events

One area where my students struggle in writing and in reading comprehension is in sequencing events in a logical order. They tend to write down details in the order that they think of them, and they can be repetitive or in an illogical order. In this unit I am going to teach mini-lessons involving sequencing story events by having students write a story about the adventures that a water droplet experiences going through the water cycle. This will integrate one of our major science objectives this year which is to understand how water is recycled through the water cycle.

Activity One- Sequence Using a Model

Students will read the "Water Cycle Adventure" reader's theater script which is about how water droplets go through all different phases of the water cycle and are continuously recycled.⁵ For example, the water droplets in the script find themselves in a cloud, falling back to the earth as snow, frozen in a glacier, and falling down a waterfall just to name a few of their adventures. To get students used to the idea of sequencing major story events, I will put a picture of each of the water droplets' adventures on the iPad using Inspiration Maps. The students will need to use the script to order the major events in the order that they occurred. They will then need to write a sentence summarizing each major event and attach it as a caption to each picture.

Activity Two- Adding Transition Words and Phrases

The next mini-lesson will focus on using transition words to organize their writing in sequence. The Common Core State Standards call for 4th grade students to effectively use transition words to organize their events in sequence. My special education students often do not independently use these transition words in their writing, but when they are prompted to use them their writing becomes much clearer and they seem to have a better mental representation of the chronology of their events. Students will use the resource included in the appendix to help them think of sample transition words that show sequence. Students will take the sequence that they have already created in Inspiration Maps based on the water cycle script and add a transition word to each step. This simple

process will also help to model the revision process for students. They already summarized and ordered each event, but now they are going back and making their writing more clear and organized by adding transition words.

Activity Three- Students Create Their Own Sequence

Students will now begin to create their own narrative from the perspective of a water droplet going through several phases of the water cycle. They can use some of the same pictures from the water cycle script activity, and add some of their own pictures if they want their water droplet to experience different things. The water cycle interactives can also help them if they are struggling to find ideas. The goal would be for each student to pick three to four experiences for their water droplet to encounter as part of the water cycle. They will then sequence their events using Inspiration Maps and write a sentence to describe each event. If they have not independently included transition words in their sentences, they can go back and include them as part of the revision process.

An aspect of using Inspiration Maps that is very beneficial for this part of the process above using a paper and pencil graphic organizer is that students may struggle to sequence their events in an order that makes sense and they may have to continually revise their order. This is very easily done just by dragging the images using Inspiration Maps and students can test many different sequences to see if they make sense. If students are struggling to sequence their events in a logical order, it may help them to act out their sequence with a peer.

Activity Four-Students Create Their Narrative Using iMovie

Students will now use the graphic organizers that they have developed to create their narrative using iMovie. Using iMovie will give the students who have a difficult time expressing their ideas in writing the chance to refine their oral story telling skills. The pictures that they found for their graphic organizers can be used in iMovie to illustrate their events. The graphic organizer and linking words that they have used will help to keep their story in a logical sequential order. Students will have the opportunity to be more creative with this activity, because they will be telling their story from the perspective of a water droplet and they will have to use a strong voice and expression to make their narrative come to life. I will have students record their iMovies one event at a time. Before recording, they will have the opportunity to practice with their peers and receive feedback on whether their peers had a clear understanding of what was going on with their water droplet after listening to their story. When they are ready, they can record each event. This may be done over the course of several days to give students time to rehearse, get feedback, and also provide feedback to their classmates. One of the most helpful features of iMovie is that they can play back their movie and revise any piece of it that they need to without having to redo the entire movie.

Developing Characters

In Social Studies my fourth grade students study the events leading up to the Revolutionary War and they learn about the differing perspectives of Patriots and Loyalists during that time period. My special education students can practice developing a character by writing a diary entry from the perspective of either a Patriot or a Loyalist during this time period. A great resource for students to use containing information and primary source documents from this time period is the Scholastic Easy Simulations American Revolution book.⁶ In these simulations, students create a character and take on the role of either a Patriot or a Loyalist. They are presented with different historically accurate scenarios and have to make a decision about what they will do next. They then spin a spinner to receive a historically accurate consequence for the decision that they made. In this sense, they are developing the events that happen to their character as a result of the decisions he or she makes and are creating their character's story. The writing activity that students will complete will require them to consider an event that happened to their character and write a diary entry that captures how their character thinks and feels about the events that are taking place.

Activity One- Brainstorming Character Traits

When students have created their character, they will need to select several character traits that describe their character. These character traits will eventually be reflected in the word choice that they use to write their diary entries. A great resource for them to use is the list of sample character traits from the Read Write Think website.⁷ Their goal will be to select two to three character traits that they will be able to reflect in their diary entries. They can add their character traits to the graphic organizer included in the appendix.

Activity Two- Analyzing Character Perspective

Before students begin planning and drafting their diary entries, they will need to analyze how their character thinks and feels. A difficult concept for the students is that the character's thoughts and feelings may be different from their own. For example, if the student has created a character who is a Loyalist, they will have to analyze that perspective to understand why their character did not want to separate from England which may be a different opinion than the student holds. The students can use the graphic organizer in the appendix to brainstorm ideas about thoughts that their character might have that will eventually influence the decisions that they make. As we discussed in seminar, character shapes the plot and this initial brainstorm about the perspective that their character holds will eventually shape the things that they character will decide to do.

Activity Three- Sequencing Events

Now that students have begun to develop their character, they need to determine the historical events that their character will experience. They can do this through classroom activities or research centered on the American Revolution or a simulation or role playing activity such as the activity that is cited.⁷ They can organize their main story events in sequence using Inspiration Maps.

Activity Four- Adding Thoughts and Feelings

One benefit of using Inspiration Maps is that students can continually branch new ideas off of the ideas that they have to develop their writing. My students benefit from breaking a writing task into smaller and more manageable chunks and this process allows them to continually add and develop more in small steps. So far, the students have developed a character and analyzed how their character would be thinking and feeling during this time period. They have also mapped out the main events that their character will experience. Now they will be ready to think specifically about how their character will react to the events that are happening to them. Using Inspiration Maps, the students can branch new bubbles off of each of their main events with words or phrases that their character would think or say when describing each event. This will help them to put themselves into the perspective of the character so that they are ready to draft a well-developed diary entry.

Activity Five- Drafting Diary Entry

One application that would be useful for students to write their diary entry is Book Creator. Book Creator will enable them to tell their story using pictures, written text, and audio, and they can revise and edit easily. They can begin to type their diary entry in the first person using the ideas that they have already brainstormed on Inspiration Maps.

Activity Six- Revising for Word Choice

My students are often very hesitant to edit or revise when they have finished writing, and when they do they tend to make only very surface level improvements such as fixing spelling, capitalization, and punctuation. One area where they could begin to revise is in improving their word choice to show character voice. This will require some teacher support and students using resources such as a thesaurus. I have also found that it is helpful for students to pull examples of strong word choice from the research materials that they have read about the American Revolution, because this will help them to gain ideas about words that people from this historical time period may have used. Students may need additional mini-lessons in other revisions that their diary entries need before publishing their eBooks.

Developing Setting

As we discussed in seminar, narrative writers know that the setting of their story can have a large influence on the plot and characters. This lesson will enable students to develop

their setting and determine how the setting will impact their character. In science class, my fourth grade students study the adaptations that living organisms have that help them to survive in their environments. As part of this unit, the students care for live crayfish in the classroom and study the ways in which the crayfish adapt to their environment. Students can reinforce this concept by writing a narrative about crayfish in which the environment plays a large role in the story. In this lesson students will use the Puppet Pals application to create a puppet show that can teach others how the crayfish adapt to their environment.

Activity One- Designing the Setting and Characters

Students can use Puppet Pals to create their own setting and characters for their puppet show. They can draw the setting and the crayfish characters on the iPads based on all of the content that they have learned in science about the crayfish's habitat and the structures that they have to help them survive. Students can conference with a peer to ensure that they have included all of the scientifically accurate details in their setting and characters.

Activity Two- Writing Dialogue

The next step for students will be to use peer and teacher support to write dialogue for their crayfish. Their dialogue should tell a story explaining how their crayfish uses its adaptations to survive in its setting. For example, their crayfish might be looking for food, defending its habitat, molting, or escaping from predators.

Activity Three- Presenting Puppet Show

When their setting, characters, and dialogue are prepared, students can rehearse and produce their puppet show. They can gain feedback from the teacher and their peers on their dialogue and the way that they use their vocal expression to tell their story. They should also get feedback on how well their illustrated setting and characters reflect the story that they want to tell and revise as necessary. Their puppet shows will most likely be one to two minutes long so they can easily practice and record several times until they have told their story exactly as they want it.

These activities will help my students develop their stories in areas where they have struggled in the past. Developing characters and setting as well as practicing sequencing events will greatly improve the quality of their narrative stories. The format of practicing each skill in focused mini-lessons is ideal for my students to break writing tasks into more manageable components. The iPad technology use will reinvent the writing process for my struggling writers who benefit from the supports that these applications provide as well as the added flexibility and adaptability throughout the entire writing process.

Appendix A- Unit Objectives and Common Core Standards

Objectives

Students will develop a narrative with a clear beginning, middle, and end.

Students will develop characters and setting.

Students will use dialogue to move the plot of the story.

Students will organize their writing using linking words and phrases.

Students will incorporate science and social studies content into their writing.

Students will use multimedia formats such as text, audio, visuals, and video to enhance their writing.

Common Core Standards⁸

W.4.3 Write narratives to develop real or imaged experience or events using effective technique, descriptive details, and clear event sequences.

W.4.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.

W.4.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.

W.4.6 With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others.

SL.4.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.

Sequence

Transition Words and Phrases:

- after
- afterward
- as
- at the same time
- before
- earlier
- finally
- first
- following
- initially
- last
- later on
- meanwhile
- next
- not long after
- now
- on (day)
- previously
- prior to
- second
- soon
- then
- until
- when
- while

Appendix C: Graphic Organizer for “Developing Characters” Lesson

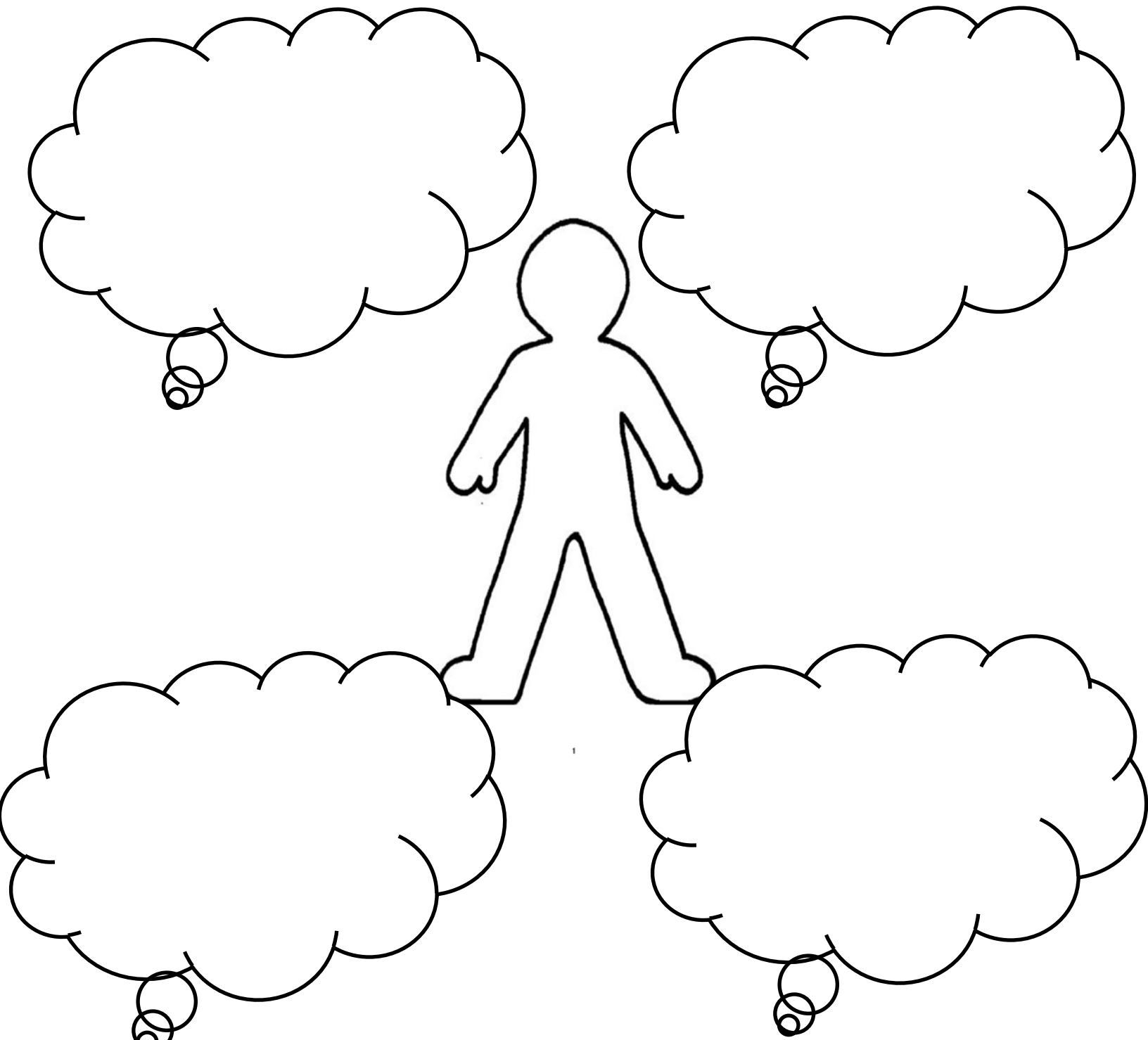
Name: _____

Character Name: _____

Character Occupation: _____

Character is a Patriot Loyalist

Character Traits: _____



Annotated Bibliography

"Best Practices in Teaching Writing to Students with Special Needs." In *Best Practices in Writing Instruction*, edited by Steve Graham, Charles A. MacArthur, and Jill Fitzgerald, by Susan De La Paz, 308-326. New York, New York: Guilford Press, 2007. This chapter outlines research involving best practices for teaching writing to students with special needs.

Holland, Beth. "Redefining the Writing Process with iPads." Edutopia. November 26, 2013. Accessed December 13, 2015. <http://www.edutopia.org/blog/redefining-writing-process-with-ipads-beth-holland>. This article contains valuable information about how iPad technology can be used to transform writing instruction.

"Preparing America's Students for Success." Home | Common Core State Standards Initiative. Accessed December 13, 2015. <http://www.corestandards.org>. This is the official website of the Common Core State Standards Initiative. Information on all of the Common Core State Standards referenced in this unit can be found on this website.

Rao, Aditi. "10 Educational Technology Quotes." TeachBytes. March 1, 2012. Accessed December 13, 2015. <http://teachbytes.com/2012/03/01/10-educational-technology-quotes/>. This website contains quotes that are helpful for teachers to consider when they are looking to incorporate technology into their classroom. The quote by David Warlick articulates a philosophy that is central to this instructional unit.

"Readers' Theater Script: Water Cycle - EnchantedLearning.com." Readers' Theater Script: Water Cycle - EnchantedLearning.com. Accessed December 13, 2015. <http://www.enchantedlearning.com/rt/weather/watercycle.shtml>. This reader's theater script is included in my classroom activities to help reinforce the concept of the water cycle and to give students a model in how to sequence events in the water cycle.

"Sample Character Traits." Read Write Think. Accessed December 13, 2015. http://www.readwritethink.org/files/resources/lesson_images/lesson175/traits.pdf. This website contains an extensive list of character traits that students can use as a resource to help them develop their characters.

Scott, Renay M. *Easy Simulations: American Revolution*. New York, New York: Scholastic (Teaching Resources), 2007. This instructional book provides primary source and text resources to help students study the American Revolution. The book contains engaging and hand-on simulation activities that require students to take on the role of a person living during this time period and make decisions about the events that will happen to them.

"The Water Cycle Interactive." United States Environmental Protection Agency. Accessed December 13, 2015.

http://www3.epa.gov/safewater/kids/flash/water_cycle_web3.swf. This interactive can be used to help students gather more information about the water cycle and model the sequential steps in the water cycle.

Walsh, Kelly. "Study Finds Benefits in Use of iPad as an Educational Tool." Emerging Education Technologies RSS. July 8, 2012. Accessed December 13, 2015.

<http://www.emergingedtech.com/2012/07/study-finds-benefits-in-use-of-ipad-as-educational-tool/>. This study presents findings about how iPad technology can be used to improve instruction.

"What Happens During the Water Cycle?" Harcourt School. Accessed December 13, 2015.

http://www.harcourtschool.com/activity/science_up_close/209/deploy/interface.swf. This interactive website helps students to gain more information about the water cycle and model the sequential steps of the water cycle.

Endnotes

¹ A. Rao, D. Warlick, "Ten Educational Technology Quotes"

² B. Holland, "Redefining the Writing Process with iPads"

³ K. Walsh, "Study Finds Benefits in Use of iPads as Educational Tool"

⁴ S. De La Paz, "Best Practice in Teaching Writing to Students with Special Needs," in *Best Practices in Writing Instruction*

⁵ "Readers' Theater Script: Water Cycle," EnchantedLearning.com.

⁶ R. M. Scott in *Easy Simulations: American Revolution*

⁷ "Sample Character Traits," Read Write Think

⁸ "Preparing America's Students for Success," Common Core State Standards Initiative

Curriculum Unit
Title

Digital Storytelling in the Content Areas for Special Needs Learners

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KEY LEARNING, ENDURING UNDERSTANDING, ETC.

- Understand the sequential nature of narrative writing
- Develop characters and setting that effectively contribute to the plot of a narrative
- Use technology and multimedia formats throughout the writing process

ESSENTIAL QUESTION(S) for the UNIT

- How can story events be sequenced to demonstrate cause and effect relationships?
- How do characters contribute to the plot of a narrative?
- How does the setting contribute to the plot of a narrative?

CONCEPT A

Sequencing Story Events

CONCEPT B

Developing Characters

CONCEPT C

Developing Setting

ESSENTIAL QUESTIONS A

How can story events be sequenced to demonstrate cause and effect relationships?

ESSENTIAL QUESTIONS B

How do characters contribute to the plot of a narrative?

ESSENTIAL QUESTIONS C

How does the setting contribute to the plot of a narrative?

VOCABULARY A

Sequence	Chronological
Cause	Effect
Narrative	
Plot	

VOCABULARY B

Character trait
Narrative
Plot

VOCABULARY C

Setting	Narrative
Plot	

ADDITIONAL INFORMATION/MATERIAL/TEXT/FILM/RESOURCES

The following iPad applications are used in this unit: Inspiration Maps, Book Creator, iMovie, Puppet Pals