

Folktales: Lessons in life from around the globe

Alexis Tuckfelt
Fort Pitt Elementary

Overview

The purpose of this curriculum unit is to enhance my students' exposure to folktales. In the second grade language arts curriculum of Pittsburgh Public Schools (Harcourt), students are briefly introduced to the genre of folktale. I would like to expand upon this exposure within the area of language arts and extend the reach into a variety of other subject areas. An interdisciplinary approach to teaching folktales can raise student mastery of the genre. Additionally, my examination of folktales from around the world will increase students' cultural awareness. By examining the social significance of folktales, reflections of human nature and social values, connections can be made to the student's own lives. Building a foundation of beliefs can greatly benefit the young mind. I plan to infuse this genre into character education. Students will investigate how some tales have been re-written to fit into modern day society. They will write fantasy tales of their own with increased motivation and interest. As folktales are passed down, I will pass down knowledge of this genre to my students. As storyteller Jane Yolen requests from her readers, "listen, touch magic, and pass it on." (9)

Rationale

Folk is defined as any group of people who share a common factor. Students have opportunities to belong to many groups. Within these groups students share the common factor of searching for their identity while looking for guidance and direction down the right path. I feel that for them to be successful in this mission, they should have ample opportunity, both at home and at school, for exposure to folktales. These stories give them the freedom to use their imaginations and they can gain knowledge and experience to help them deal with various social situations that might come their way. They can learn about a variety of cultures, making them well rounded individuals, eventually leading to the role of responsible citizens. Folktales are a main source of socio-cultural information.

Bruno Bettelheim agrees with me in his views on the importance of folktales /fairy tales as having a social impact. This child psychologist feels that the value of fairy tales is irreplaceable as a use of enchantment for children. They serve to educate, support and liberate the emotions of children. He states that the minds of children can "be opened to an appreciation of all higher things in life by fairytales, from which they can move easily to enjoying the greatest works of art and literature." (23) This is the goal of any parent or teacher, to open young minds. Bettelheim also believes that fairytales, "direct the child to discover his identity and calling, and they also suggest what experiences are needed to develop his character further." (24) Notice that they are not telling a child what to do or

what position to take, they are merely suggesting, directing, and leading the child to “find his own solutions.” (25)

Fairy tale scholar Jack Zipes has similar beliefs that fairytales guide us. He says they are “socially symbolical acts and narrative strategies formed to take part in civilized discourses about morality and behavior in particular societies and cultures.” (19) He touches upon the important element that folktales exist in all cultures. A folktale is a story developed by people of many different cultures and is used to explain natural phenomena or events of historic significance. There are many collections of folktales in all cultures. These stories were passed down orally until the advent of literacy. Each culture can possess similarities and difference in their folktales. On the Scholastic website, Nina Jaffe describes that folktales give a way “for people to see, feel and understand life from many different perspectives-both personal and cultural.” (2004) Many of these stories have been passed down through generations and can offer a sort of collective wisdom. The idea of learning from other cultures, a sharing of intellectual understanding, through the spoken word is very unique. What better way is there to educate students about a culture than to pass along its history through the tradition of the spoken word? Children need this exposure to folktales to help them value different cultures throughout the world.

In her book *Touch Magic*, Jane Yolen talks about folklore and how it can “serve the four very basic functions in the education of everychild.” (15) I agree that folktales are a fundamental part of education. Yolen describes the four functions as 1) to provide a landscape for allusion, 2) a way to look at another culture from the inside out, 3) to be used for therapy and 4) a framework or model for an individual’s belief system. For the purpose of this curriculum unit I will focus on two purposes of folktales that I feel relate strongly to the second grader: culture awareness and morality. These match Yolen’s second and fourth functions.

Passed along by parents and others, folktales teach children about their heritage, culture, and codes of behavior. As students come to understand the logic behind the telling of folktales, they also begin to understand the workings of a foreign culture. As many students will find, certain folktales are very similar to popular stories today. Through this awareness, students will discover the similarities between themselves and people who practice a different way of life. Yolen’s statement that “culture begins in the cradle”, (9) is important. In today’s society it seems that we are getting away from this thought. Television programs and video games are taking the place of bedtime story rituals. The general outlook views Disney movies as the ultimate fairytale when in fact they are sad replications of the originals. Even in adulthood, the continuum of literature needs to be kept alive with tales that link the past and the future. It is very rare to hear anyone reference these stories of the past. “To do without tales and stories and books is to lose humanity’s past, is to have no star map for our future,” says Yolen. (9) In a modern day version of a folktale, such as *Shrek*, the characters are humorously revisited. Some traditions’ characters are referenced to a positive social ideal of the times. In *Ella Enchanted*, the Ella character is a strong and independent one. However, sometimes these ideals expressed are not “ideal”, as in Disney films. Maria Warner finds it essential

when examining fairy tales to “look at the context in which they were told, at who was telling them, to whom, and why.” (XVI)

Children in second grade are full of imagination. They are curious about their world and possess hopes and fears. Books can open their minds to other worlds, helping to make reading an enjoyable activity. The symbolic language of tales makes sense to them. Folktales incorporate universal themes that interest children. They can be used as a model of instruction. Language is what keeps us alive and we are headed for a world without words. Folktales provide a language of the imagination through images and plots. Literature is what makes us human beings, who we are; it gives us a sense of being in control of our destiny. The more we read the more we get a sense of understanding the world we live in.

When examining tales across different cultures one can find clear distinctions as well as similarities. All cultures have their own version of Cinderella and many countries have animal characters in their stories. Numbers often have significance in these stories, such as 3 and 7. All cultures have somehow embedded their values and morals in the tales. Each culture also has its own distinct characters and motifs. I will briefly discuss the uniqueness and sameness of folktales from the countries that I use in my lessons.

Russian folktales- Common characters in Russian tales, as well as other cultural tales, are wise animals. Some differences that Russian folktales have that set them apart from others are tales with folk rituals involving the bear and the horse as two common motifs. Baba Yaga, a witch of Russian legend, the Fire Bird and Valissa the Beautiful, a twist to the western tradition Frog Prince, are unique characters of Russian legend.

Masha Gedilaghine Holl describes the 4 main types of Russian folktales as: 1) magic tales with a female hero, 2) magic tales with a male hero, 3) animal tales and 4) magic tales about every day life. There are no fairies in Russian folklore so there are no fairytales. These types are similar to ones found in other cultures. In tales with a female hero, girls are performing some sort of a household task or having their morals tested by their ability to not lie or steal. Her actions allow her to find a good husband. In tales with male heroes, he always leaves on a quest of some sort, eliciting the aid of magical helpers to perform tasks for him or fix his mess. Animal tales are not magical and the animals are typecast in their roles. Axe Soup is a Russian version of Stone Soup.

Chinese tales- As with many other cultural tales, Chinese folktales convey a moral or folk wisdom. Most are short with a simple plot. There is a mixture of history and mythology in the stories. Many are used as proverbs, which are significant to Chinese values. There are common characters of a king, magistrate, wise or foolish man, a young maiden, a good son, a scholar. Common themes are: justice over injustice; wisdom over strength; and examples of cleverness or resourcefulness. Yeh-Shen is the Chinese version of A Cinderella Story.

American- Brothers Grimm and Hans Christian Anderson come to mind when thinking of traditional American tales. Cinderella, The Three Bears and Little Red Riding Hood are

some of the “Once upon a time” and “happily ever after” tales. In these stories the good always wins over evil. There are also historical tales with characters such as Johnny Appleseed, Paul Bunyan and Davy Crockett. These stories provide a historical aspect.

African- Animal characters appear in African folktales. However, some of these stories came out of a reaction to slavery and the animals took on characteristics of people on the plantation. Briar Rabbit, representing the slaves, was made to be clever so as to outwit the bear, fox and wolf. In these stories animals, objects and even places have a life of their own. There is talk about different villages and regions of land as well as lessons to be learned. There is even an Egyptian Cinderella story. Stories are often performed through dance and drumming, a tradition built from those in close communities.

Mexican/Latin American- Similar to tales of other cultures, there are preserved elements of ancient story types combined with folklore of indigenous peoples. In Mexican culture there are many popular cuento-tales of magic, many of which are based on historical events. There are also many creation (pourquoi) and religious stories. The trickster and noodlehead are familiar characters. The stories were told through live performance, mainly at a velorio, or a wake. Little Gold Star is the Cinderella of Mexico.

Native American- As with all folktales, many things can be taught or learned with Native American folktales. The early inhabitants of North America had a very close relationship with nature and this can be seen through their stories. Morals play a role with mythology and social structures. There is a large selection of star, solar, and lunar stories, hero stories, trickster stories and even warnings. The Native American Cinderella story tells a tale of Strong Wind who tests the truthfulness of all who seek him.

Objectives

In this curriculum unit students will be able to successfully define what a folktale is. This includes identifying the elements found in folktales. They will be able to find moral values and lessons within these stories. These values and lessons will be used to guide their actions and develop their character. Students will discuss and compare traditional and modern tales. Stories of many cultures will be utilized, increasing the cultural awareness of students. They will also be able to write their own folktales. Some will be their own and some will be revisions or extensions of existing ones. There should be elements in their stories that tie into their experiences, culture and era.

Strategies

Many, if not all, aspects of this curriculum unit can be taught using hands-on activities. This will ensure that the students learn information through their own experiences. In doing this, they will gain an increased understanding of the genre of folktales and aspects of different cultures. Overall, this will make for a more meaningful learning experience.

An interdisciplinary approach will be taken to make connections between the genre of folktales with many subject areas, including language arts, mathematics, social studies and science. All of the elements of the curriculum unit fuse with the general curriculum so they should make a nice transition to extension activities. Since all students learn in a variety of ways, I've included activities for all types of learners. Visual-pictures, auditory-music books on tape, tactile-cooking –making jewelry kinesthetic -dance

In all lessons I will assess prior knowledge and experiences of the students. This can be done by using a KWL chart to record information known, what is wanted to be known and what was learned. I will provide many resources from books to technology. In all of the activities the children will be involved in rich and meaningful interactions with each other. A culminating activity, showcasing work from the unit will be presented on Arts Night.

Classroom Activities

The following are classroom activities that support the ideas in the curriculum unit. Since every classroom differs you will need to adapt the environment and activities to meet your needs. These lessons meet the national, state, and local standards that all Pittsburgh Public School curricula must meet. The state has developed 62 content standards within 10 Core Curriculum Frameworks. In this unit, I will focus on the Communication Standards and Math Standards. Depending on which extension activities you utilize, Science and Technology and Citizenship Standards can be used as well.

The implementation of these lessons should follow the pacing guidelines of each department. The Language Arts lessons are fully developed to allow for choices. The first lesson in the Language Arts section would be taught in September, since it is related to the first read aloud and first story selection in Theme 1 of the first student anthology. The lessons for Mathematics, Social Studies and Science are more of suggestions for extensions of what is provided in the curriculum.

LANGUAGE ARTS

Lesson 1

In the second grade Harcourt curriculum, the students are briefly introduced to folktales. Prior to this introduction, I would use a KWL chart to assess prior knowledge of the students surrounding this genre (K). They are told that a folktale is a story that was first told orally. It is often passed down and retold in different forms. It reveals the beliefs and customs of a culture. Its purpose is to entertain, but it may also teach a lesson. This is a good foundation for learning the genre of folktale; however a deeper investigation must follow. I would refer back to the KWL chart and record what else the students want to know about this genre (W).

In the Harcourt first student anthology *Something New, The Great Big Enormous Rock*, is offered as a read aloud. It is a short tale that teaches a lesson, a fable about

teamwork. The animal characters act like people. *The Enormous Turnip*, a Russian tale by Alexei Tolstoy, follows as a reading selection whose characters (human and animal) also work together. Rather than merely listening to the read aloud and answering questions or reading the story and taking a comprehension test, I will introduce students to similar folktales. *The Enormous Potato* and *The Enormous Carrot* are tales with the same idea of working together, yet they have varying characters and vegetables to carry out the plot. In *The Giant Cabbage*, an Alaskan version of a Russian folktale, a depiction of animals from that region and information about Alaskan vegetables make it somewhat distinct. By providing students with more versions of this type of tale, they can more clearly see the elements of this type of story. The series of linked characters (“chain formula”), setting, problem, solution and lesson learned are all an integral parts. These stories can also be referred to as fantasy or unrealistic fiction. These should be listed in the learned (L) section of the KWL chart.

The Response Activity, Help is on the Way! provided in the curriculum offers good suggestions. The students will choose a vegetable or fruit and choose five characters that will help each other. They will then use their imagination to write and illustrate their own story. They will share this work by reading and/or acting out the tale. Since the lesson of the tale is teamwork and this is the student’s first exposure to the genre, I would have them work in teams to do this activity. I would also develop a graphic organizer to record elements of their story. Finally, a rubric would be designed to help students self/peer assess their progress.

I have included more versions of this story in the student bibliography. A social studies extension is to locate on a map where each translation of the original story comes from. The reading of *The Enormous Potato* can be followed with science experiments with potatoes. After reading *The Enormous Carrot* students can make carrot puddin’ and talk about healthy food choices, making a health connection. *The Giant Cabbage* can lead one to identify comparison words: big, bigger, biggest and describing words and synonyms: big, huge and giant. These are great grammar and vocabulary lessons. For a music and movement activity, the students can sing and dance to the nursery rhyme, The Farmer and the Dell.

Lesson 2

Another read aloud is *The Empty Pot* from China by Demi. In this tale honesty is rewarded. It starts with a familiar idea in Chinese folklore, an aging king, or Emperor, is looking for someone to take over the kingdom. Students can learn the background of Chinese tales and words of wisdom (proverbs) that are valued in Chinese culture. In this lesson I will focus on Chinese proverbs.

I will read *Chinese Proverbs* by Ruthanne Lum McCunn to students. Then students can then begin to write their own proverbs. An art connection can be made by illustrating their proverbs and compiling a classroom collection in storybook format. As a fun cooking activity, students can make their own fortune cookies. At the PBS website, referenced in the bibliography, students can watch a 4 minute video of how people make

fortune cookies, look at still pictures of the process and do an online activity. A fortune cookie recipe for children to follow to make cookies in class or at home can be found in the bibliography as well.

As I stated earlier, all cultures have their own version of Cinderella. This would be a good time to read the Chinese version, Yeh Shen. Comparisons to the traditional American versions can be made and the class can record the similarities and differences throughout the year.

Lesson 3

Johnny Appleseed by Pleasant DeSpain is a selection in the student anthology that tells the story of an American pioneer. This story is in play format and is a great way to teach this to the students. Discuss with the students other famous characters of American folk tales such as Paul Bunyan and Davy Crockett. Students can research the characters and make puppets of them. The book *Pioneer Days* by David C. King offers many activities such as projects, games, and recipes relating to the pioneer lifestyle. Connections are made with Native American and Mexican cultures offering a social studies connection.

Also, discuss traditional American fairy tales, such as Cinderella. There are versions of this story in every culture. *The True Story of the Three little Pigs* as told by A. Wolf gives students the humorous viewpoint of the wolf. This can lead them to write the next chapter to popular fairytales, After Happily Ever After or a twist on the original with updated characters and plots. There are many cultural versions of American classic tales such as Little Red Riding Hood versions including the Chinese- Lon Po Po and Little Red Cap from Germany. Students can visit http://teacher.scholastic.com/writewit/mff/folkloreexp_index.htm for a technology connection that will assist them with their writing choices. For assessment you may want to allow a visual learner to retell a story with story boards. Folktales listed by motif can be found at <http://wpl.lib.ri.us/bibmotif.htm>.

MATHEMATICS

Lesson 1

A required skill for second grade students is equal/sharing/doubling. In the Everyday Math curriculum there is a lesson about doubling in which students are introduced to the Wubbles. The Wubbles are characters who double in amount after each day and they divide in half when someone blinks. Students are asked to find the numbers of Wubbles after one day, two days and up to one week. Then they are asked to find the number after someone blinks.

The story *Two of Everything* by Lily Toy Hong is a Chinese folktale which deals with the concept of doubling. It also has a bit of humor and wisdom. The students should be familiar with some Chinese wisdom from Language Arts Lesson 2 that dealt with proverbs. As an extension of this story and the math lesson, a pot can be used for students to drop items into, such as money. They will then have to find the value of the item when

doubled. For example, if a student put a quarter into the pot, the doubled amount would be 2 quarters or 50 cents. *One Grain of Rice: A Mathematical Folktale* by Demi also deals with the concept of doubling. In this story a clever young girl outwits a selfish raja and is rewarded by doubling a single grain of rice everyday until eventually there are millions of grains. An extension of this activity is that students can do the activity in the classroom, reinforcing the concept of place value. For second grade I would stop when the amount reaches the thousands. These amounts can be recorded on a chart in the classroom.

SOCIAL STUDIES

When using folktales to enhance your social studies curriculum, background information about the geographical and historical settings of the tales is necessary. The subject matter in the themes of the Social Studies curriculum deals with a variety of cultures and can be extended with different types of folktales.

Below I have listed the 6 themes of the Social studies curriculum, related activities already in the curriculum and ideas for further extension.

Theme 1: Family Ties-

- *Town Mouse and Country Mouse*-tale of the value of friendship
- Los viejitos-folk dance Mexican/Latin American folktales
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Theme 2: Earth Our Home

- *The Legend of the Bluebonnet* by Tomie de Paola -Comanche legend of girl's sacrifice to bring rain to her people
- Make Native American jewelry and sand paintings
- On a map of the world-label continents with folktales from different countries as a year long project

A Working World

- *The Grasshopper and the Ants*-Aesop-value of hard work
- *The Man Who Kept House*-Norse tale of a husband who thinks his wife's chores are easier
- Have students do role-reversal-take on the chores of a family member (home-school connection)

We the People

- Discuss tales dealing with fairness and honesty

Discovering Our Past

- *When the Sun Fell from the Sky*-Yurok tale where the sun falls and 2 raccoons help
- *How Chipmunk Got Tiny Feet* by Gerald Hausman-Native American tales which teach lessons in human behavior. These should be told orally to keep with tradition.

- Slavery- African tales of Briar Rabbit
- Cinderella stories-*The Egyptian Cinderella* by Shirley Climo, and *Mufaro's Beautiful Daughter's* by John Steptoe
- Anansi stories by Eric Kimmel –discuss animals and lands
- Interactive African storytelling and demonstrations with African musical instruments Azizip17@hotmail.com

Americans Celebrate

- Discussions about important people, places and holidays of different cultures.

CHARACTER EDUCATION

In the Pittsburgh Public Schools there are five character traits which are taught throughout the year: caring, trust, responsibility, respect, and family. A great way to reinforce these concepts is through the use of folktales.

SCIENCE

During the student's study of wind catchers in Science, reading Chinese folktales such as the *The Emperor and the Kite* by Jane Yolen would build bridges across the curriculum. Also, an Aztec tale, *Musicians of the Sun*, by Gerald McDermott deals with the wind. There is also a Native American Cinderella story whose main character is Strong Wind.

Annotated Bibliography/Resources

Russian:

Afansa'ev Aleksandr, Russian Fairy Tales. Pantheon, 1976. This is the most complete collection of Russian tales.

Haney, Jack V. An Introduction to the Russian Folktale. M.E.Sharpe, 1999. An introduction to Russian folktales dealing with origin, structure and language.

Ransome, Arthur. Russian Fairy Tales. Everyman's Library, November 1995. This collection contains magical and traditional Russian tales.

<http://user.aol.com/MHoll/Tales/RussianFolktalePage.html#index> -everything you want to know about Russian tales

Chinese:

Kong, Shiu L. and Elizabeth K. Wong. Fables and Legends from Ancient China. Toronto: Kensington Educational, 1985. A collection of fables and legends from China.

Verlag, Eugen Dierderichs. Chinese Folktales. London: G. Bell & Sons, 1971. A collection of folktales from China.

American:

Bettelheim, Bruno. The Uses and Enchantment of Fairy Tales. New York, NY: Random House, Inc.: 1976. This child psychologist gives us his views concerning the value of fairy tales.

Warner, Maria. From Beast to the Blonde: On Fairy Tales and their Tellers. New York, NY: Farrar, Strauss and Giroux. 1994. A study of the history and meaning of fairy tales looking at storytelling in art and legend.

Yolen, Jane. Touch Magic. Little Rock, AR: August House Publishers, 2000. A selection of essays with different perspectives on reading and appreciating fantasy.

Zipes, Jack. Fairy Tale as Myth Myth as Fairy Tale (The Thomas D. Clark Lectures: 1993). New York, NY: Oxford University Press. A selection of essays dealing with fairy tales.

Websites:

<http://www.americanfolklore.net/sindex.html> - examples of American folklore

http://teacher.scholastic.com/writewit/mff/folkloreexp_index.htm -exploring folklore through research, recording and writing

African:

Abrahams, Roger D. African American Folktales. New York, NY: Pantheon Books, 1985. A variety of stories from slave culture, urban America and Caribbean islands.

Mexican/Latin American/Indian:

Bierhorst, John. Latin American Folktales. New York, NY: Pantheon Books, 2002. A selection of stories from Hispanic and Indian traditions.

Student Bibliography

Language Arts

Lesson 1:

Davis, Aubrey. The Enormous Potato. Buffalo, NY: Kids Can Press, 1998.

Domanska, Janina. The Turnip Toronto, Ontario: Collier-Macmillan Canada, Ltd., 1969.

Lottridge, Celia Barker. Ten Small Tales. New York, NY: Macmillan, 1994. Story 5 is "The One Turnip Garden"

Morgan, Pierre (illus.). The Turnip. NY, NY: Putnam, 1996.

Parkinson, Kathy. The Enormous Turnip. Niles, IL: Albert Whitman & Company, 1986.

Peck, Jan. The Giant Carrot. New York, NY: Dial Books, 1998.

Stihler, Cherie B. The Giant Cabbage: An Alaskan Folktale. China: Sasquatch Books, 2003.

Tolstoy, Aleksei and Niamh Sharkey. The Gigantic Turnip. Brooklyn, NY: Barefoot Books, 1998.

Tolstoy, Alexei. The Great Big Enormous Turnip. NY, NY: Franklin Watts, 1968.

Vagin, Vladimir. The Enormous Carrot. New York, NY: Scholastic, 1998.

Ziefert, Harriet. The Turnip. New York, NY: Viking, 1996.

Lesson 2:

McCunn, Ruthanne Lum. Chinese Proverbs. San Francisco, CA: Chronicle Books LLC, 2002. This book contains centuries of Chinese wisdom in a bilingual format.

Websites:

http://pbskids.org/rogers/R_house/picpic.htm Students can view a 4 minute film of how to make fortune cookies.

<http://www.dianaskitchen.com/page/cookies/fortune.htm> A fortune cookie recipe

<http://www.unc.edu/~rwilkers/resource-china.htm> Yeh Shen- A Chinese Cinderella Story

Lesson 3

King, David C. Pioneer Days: Discover the Past with Fun Projects, Games, Activities and Recipes. U.S.A.:Roundtable Press Inc, 1997.

Scieszka, Jon. The True Story of the Three Little Pigs. Scholastic Inc. New York, 1989.

Scieszka, Jon. The Stinky Cheese Man and other Fairly Stupid Tales. Scholastic, New York, 1992.

Websites:

<http://www.americanfolklore.net/sindex.html> -site containing American legends

Mathematics

Lesson 1:

Demi. One Grain of Rice: A Mathematical Folktale. 1997.

Hong, Lily Toy. Two of Everything. Morton Grove, IL, 1993. This is a funny Chinese tale with a bit of wisdom.

Social Studies

Aardema, Verna. Why Mosquitoes Buzz in People's Ears.

Hausman, Gerald. How Chipmunk Got Tiny Feet: Native American Animal Origin Stories. HarperCollins Publishers, 1995

Kimmel, Eric A. Anansi and the Talking Melon. Holiday House: New York, 1994.

Kimmel, Eric A. Anansi and the Moss-Covered Rock. Holiday House: New York, 1988.-lying and the damage it entails

Step toe, John L. Mufaro's Beautiful Daughters. Scholastic Inc. 1989.

Websites:

<http://www.otmfan.com/html/brertar.htm> - story of Briar Rabbit and the Tar Baby

Science

McDermott, Gerald. Musicians of the Sun: An Aztec Myth. Random House Children's Books, 1988.

Yolen, Jane. The Emperor and the Kite. New York, NY: Philomel Books, 1988.

Appendix A-Content Standards

PPS Content Standards for Communication:

1. All students use effective research and informational management skills including locating primary and secondary sources of information with traditional and emerging library technologies.
2. All students read and use a variety of methods to make sense of various kinds of complex texts.
3. All students respond orally and in writing to information and ideas gained by reading narrative and informational texts and use the information and ideas to make decisions and solve problems.
4. All students write for a variety of purposes, including to narrate, inform and persuade, in all subject areas.
5. All students analyze and make critical judgments about all forms of communications, separating fact from opinion, recognizing propaganda, stereotypes and statements of bias, recognizing inconsistencies and recognizing the validity of evidence.
6. All students exchange information orally, including understanding and given spoken instructions, asking and answering questions appropriately, and promoting effective group communications.
7. All students listen to and understand complex oral messages and identify their purpose, structure and use.
8. All students compose and make academic presentations for each academic area of study that are designed to inform, persuade or describe.
9. All students communicate appropriately in business, work and other applied situations.

PPS Content Standards for Math

1. All students use numbers, number systems, and equivalent forms (including numbers, words, objects and graphics) to represent theoretical and practical situations.
2. All students compute, measure and estimate to solve theoretical and practical problems, using appropriate tools, including modern technology such as calculators and computers.

3. All students apply the concepts of pattern, functions and relation to solve theoretical and practical problems.
4. All students formulate and solve problems and communicate the mathematical processes used and the reasons for using them.
5. All students use and apply the basic concepts of algebra, geometry, probability and statistics to solve theoretical and practical problems.
6. All students evaluate, infer and draw appropriate conclusions from charts, tables and graphs, showing the relationships between data and real-world situations.
7. All students make decisions and predictions based upon the collection, organization, analysis and interpretation of statistical data and the application of probability.