

BCSCR



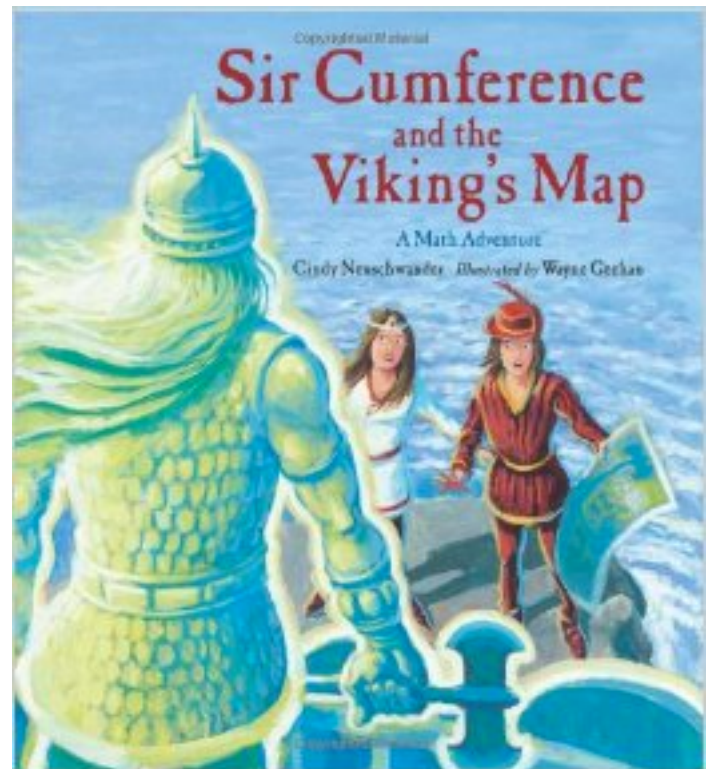
Building Communities that
Support Children's Reading

Texas

Sir Cumference and the Viking's Map

By Cindy Neuschwander

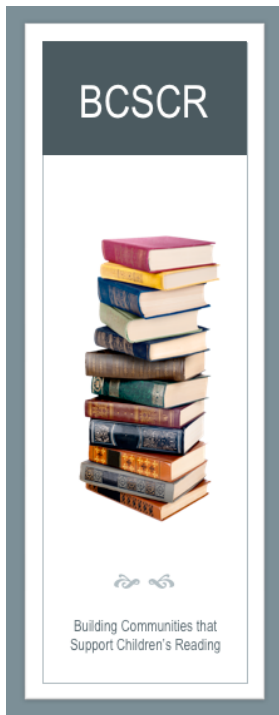
RL 4.1



6th Grade – Informational Book

This grant is managed by
The Three Rivers Education Foundation
<http://threeriverseducationfoundation.org>
505-436-2548

501 Airport Dr., Suite 209
Farmington, NM 87401



The book sets with the BCSCR program are designed with differentiation in mind. First of all, the fiction and informational books have been paired to compliment each other and chosen for low, average, and high readers that exist in classrooms. Next, the books have been put into two major themes: “Blast into the Past, and Exciting Excursion” to help with thematic units. Finally, the activities are scaffolded and address multiple learning styles and preferences while addressing the standards that each state in the program requires.

Please contact the curriculum specialists that created these units if you have any content questions or comments.

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4th	Blast into the Past - Fiction	Blast into the Past - Informational
3.2	Oh Say, I Can't See	George Washington's Teeth
3.9	The Whipping Boy	Bullies are a Pain in the Brain
5.1	Traitors Gate	Sir Cumference and the Isle of Immetter
5th		
4.5	Number the Stars	Candy Bomber
5.3	Bull Run	You Wouldn't Want to Be a Nurse in the Am. Civil War
5.6	Julie of the Wolves	Alaska
6th		
4.7	Al Capone Does My Shirts	You Wouldn't Want to Be a Chicago Gangster
5.3	Snow Treasure	War Dogs
6.2	Door in the Wall	Castles

4th	Exciting Excursions - Fiction	Exciting Excursions - Informational
3.3	97 Ways to Train a Dragon	Sir Cumference and Great Knight of Angleland
3.9	Because of Winn Dixie	What's for Dinner
4.7	From MUF of Mrs. BEF	Turn of the Century
5th		
4.4	The 13th Floor	Sea Queens
4.9	Jeremy Thatcher, Dragon Hatcher	Sir Cumference and Dragon of Pi
5.3	The Cay	Ouch
6th		
5	Mr. Tuckett	Get the Scoop on Animal Poop
5.3	The True Confessions of CD	26 Women who Changed the World
6.8	The 21 Balloons	Sir Cumference and the Vikings Map



Contents

- + Synopsis of book
- + Vocabulary list
- + Notepad
- + High level questions
- + Introduction to Choice board
- + Book Specific Choice board
- + Choice Board Template
- + Introduction to RAFT
- + Book specific RAFT
- + RAFT Rubric
- + RAFT Template
- + Book Specific College & Career Readiness
- + Writing rubrics

Synopsis



Sir Cumference and the Viking's Map

Per and Radius are lost in the medieval countryside when they discover a map decorated with two hand “axes” featuring X and Y coordinates. The map promises to lead them to treasure belonging to Viking Xaxon Yellowbearyd. As Per and Radius follow the map on horseback, they discover additional X and Y coordinate clues left by Xaxon, which readers can help them locate on the large map. Outwitting a gang of bandits, Per and Radius follow the last coordinates to Xaxon’s ghost, who gives them the treasure (in the form of more maps). Neuschwander does an admirable job of injecting humor (namely, some groan-inducing puns) and action (bandits! ghosts!) into this explanation of coordinates and axes, and Geehan’s thickly worked paintings contribute some drama of their own.

Vocabulary



Sir Cumference and the Viking's Map

Horizontally - positioned from side to side rather than up and down: parallel to the ground

Vertically – positioned up and down rather than from side to side: going straight up

Musty - having a bad smell because of wetness, old age, or lack of fresh air

Knoll - a small hill

Legend - a story from the past that is believed by many people but cannot be proved to be true

Brambles - a rough bush or vine that usually has sharp thorns on its branches

Milestone - a stone by the side of a road that shows the distance in miles to a specified place; an important point in the progress or development of something: a very important event or advance

Epilogue- a final section or speech after the main part of a book, play, or musical composition

Coordinates - one of a set of numbers that is used to locate a point on a map, graph, etc.

Axis - the imaginary straight line that something (such as the Earth) turns around

Brigand - a robber who travels with others in a group

Name: _____



Notepad

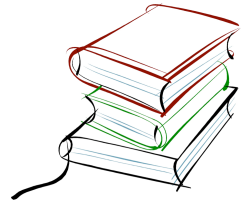
Sir Cumference and the Viking's Map

Main Ideas

Details

Characters	
Problems	
Math Concepts	

Epilogue	

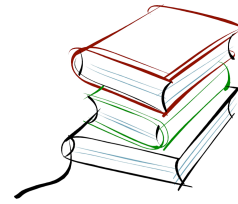


High Level Questions

Sir Cumference and the Viking's Map

These questions can be used to differentiate and scaffold instruction as a basis for class discussions, small group work, and/or extended individual writing assignments.

1. What relationships do you see between the characters' names and math terms?
2. Defend your opinion on whether or not there are ghosts such as Xaxon Yellowbearyd.
3. Elaborate on the reason Per said, "And used some sharp thinking to get a handle on our location"?
4. What were Per and Radius's motive for swimming to the island?
5. What were some of the problem solving strategies Radius and Per used when they were lost?
6. Imagine you are one of Barnaby's gang members. Describe what your life is like.
7. What is your favorite illustration and why?
8. Describe a situation when you were lost or have had to use a map?
9. Look at the epilogue. What is one thing you understand, and one thing you haven't learned yet?
10. What emotions do Radius and Per exhibit throughout the book?



Using Choice Boards

Choice boards give students the opportunity to participate in multiple tasks that allow them to practice skills they've learned in class or to demonstrate and extend their understanding of concepts. From the board, students either choose or are assigned tasks to complete. Individual tasks address learning style modalities.

To scaffold the activities for struggling readers, teachers can modify the tasks using the blank template provided or give more details for performance criteria. Some teachers like to assign point values for the different tasks.



Choice Board

Sir Cumference and the Viking's Map

<p>Design and construct a board game using information from the book and play it with others.</p>	<p>Make a poster showing different examples of using coordinate geometry.</p>	<p>Create 10 questions Sir Cumference and Lady Di would ask Per and Radius about their adventure.</p>
<p>Pantomime different scenes inferring Radius and Per's emotions during their adventure.</p>	<p>On a coordinate grid, draw the path that Per and Radius take adding your own details as needed.</p>	<p>Draw your own map similar to the one on page 11, showing your classroom in the middle.</p>
<p>Fill in the "It's All in a Name" table explaining the relationship between characters and mathematics.</p>	<p>Discuss in a paragraph how the Epilogue contributes to the book.</p>	<p>With a partner, create and perform a conversation between Radius and Per.</p>



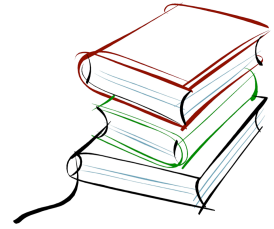
It's all in a Name

Sir Cumference and the Viking's Map

Character	Role in Story	Relationship to Math



Choice Board



Using a RAFT Matrix

A RAFT matrix enhances students' comprehension of novels they're reading and information they're learning. It also provides a fun way to encourage student writing. RAFT is an acronym for *role*, *audience*, *format*, and *topic*:

- **Role.** The role is the person or people the student becomes for this project. Sometimes students take on the role of a book character, historical figure, or contemporary personality, such as Peyton Manning, and at other times, they are themselves.
- **Audience.** The audience is the person or people who will read or view this project. They may include students, teachers, parents, or community members, as well as simulated audiences, such as book characters and historical personalities.
- **Format.** The format is the genre or activity that students create. It might be a letter, brochure, cartoon, journal, poster, essay, newspaper article, speech, or digital scrapbook.
- **Topic.** The topic pertains to the book. It may be an issue related to the book, an essential question, or something of personal interest.

RAFT is an effective way to differentiate instruction by providing tiered activities. The BCSR RAFT matrices are scaffolded and can be adjusted according to students' achievement levels, English proficiency, and interests.



RAFT Matrix

Sir Cumference and the Viking's Map

Role	Audience	Format	Topic
Barnaby	Gang	Instructions	How to be a good robber
You	Your peers	Web page	All about coordinates
Horizontal	Vertical	Song	How we work together
Xanon Yellowbearyd	Per, Radius & Barnaby's band	Bubble conversations to accompany illustrations on page 26-27	The Hidden Story



RAFT Matrix Rubric

STUDENT NAME: _____ **NOVEL:** _____

Accuracy 5 4 3 2 1
Information is accurate and supported with specific details from the novel.

Comments:

Role 5 4 3 2 1
The writing is credible in the role assigned.

Comments:

Format 5 4 3 2 1
The proper format was used.

Comments:

Conventions 5 4 3 2 1
The writing had no errors in grammar, punctuation, capitalization, or spelling.

Comments:

Creativity 5 4 3 2 1
Writing shows imagination and originality.

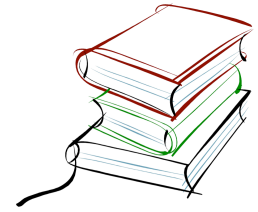
Comments:

Assessment Guide
5 = Above and Beyond
4 = Meeting Standard
3 = Working to Standard
2 = Developing
1 = Incomplete



RAFT Matrix

Role	Audience	Format	Topic



College & Career Readiness

Sir Cumference and the Viking's Map

College and career readiness refers to the content knowledge, skills, and habits that students must possess to be successful in postsecondary education or training that leads to a sustaining career. The extensions and enrichment topics in this section compliment the topic of this book and provides educators choices of technology-based career information and a range of extracurricular and enrichment opportunities to nurture interests and a sense of place in our world.

Kid friendly writing rubrics and checklists Grades 3-6

<http://allwritewithme.com/for-teachers/kid-friendly-writing-rubrics-checklists/>

Background on Mathematics

<http://www.math-exercises-for-kids.com/>

<http://www.coolmath4kids.com/>

Careers in Mathematics

<http://kids.usa.gov/teens/jobs/a-z-list/index.shtml>

<http://www.coolmath.com/careers>

Video

<https://www.youtube.com/watch?v=72sSvz8wTj4>

https://www.youtube.com/results?search_query=video+on+mathematics+for+kids

http://www.dailymotion.com/video/xxhuof_kid-s-animated-history-with-pipo-the-vikings_lifestyle

Learn About Mathematicians

Summary

Quick Facts: Mathematicians	
2012 Median Pay	\$101,360 per year \$48.73 per hour
Entry-Level Education	Master's degree
Work Experience in a Related Occupation	None
On-the-job Training	None
Number of Jobs, 2012	3,500
Job Outlook, 2012-22	23% (Much faster than average)
Employment Change, 2012-22	800

What Mathematicians Do

Mathematicians use advanced mathematics to develop and understand mathematical principles, analyze data, and solve real-world problems.

Work Environment

Mathematicians work in the federal government and in private science and engineering research companies. They may work on teams with engineers, scientists, and other professionals.

How to Become a Mathematician

Mathematicians typically need a master's degree in mathematics. However, there are some positions available for those with a bachelor's degree.

Pay

The median annual wage for mathematicians was \$101,360 in May 2012.

Job Outlook

Employment of mathematicians is projected to grow 23 percent from 2012 to 2022, much faster than the average for all occupations. Businesses will need mathematicians to analyze the increasing volume of digital and electronic data.

What Mathematicians Do

Duties

Mathematicians typically do the following:

- Expand knowledge in mathematical areas, such as algebra or geometry, by developing new rules, theories, and concepts
- Use mathematical formulas and models to prove or disprove theories
- Apply mathematical theories and techniques to solve practical problems in business, engineering, the sciences, or other fields
- Develop mathematical or statistical models to analyze data
- Interpret data and report conclusions from their analyses
- Use data analysis to support and improve business decisions
- Read professional journals, talk with other mathematicians, and attend professional conferences to maintain knowledge of current trends

What Do Engineers Do?

Engineers are creative problem-solvers who aim to improve the world, increase productivity, and help people live better lives. They apply math and science principles to design everything from 3-D televisions to bionic body parts to hybrid cars. Just imagine how many engineers worked to improve airplanes so that they can carry up to 800 people—or how many engineers created the Kingda Ka roller coaster that travels at 128 miles per hour! Engineers not only work on exciting projects, but are also part of a growing field with above-average salaries. Imagine Engineering gives you an overview of some of the common types of engineers and their job duties—but this is just the beginning.

Where in the World?



Research Task Rubric

Construct Measured	Score Point 3	Score Point 2	Score Point 1	Score Point 0
Reading Comprehension of Key Ideas and Details	The student response demonstrates full comprehension of ideas stated explicitly and inferentially by providing an accurate analysis and supporting the analysis with effective textual evidence.	The student response demonstrates comprehension of ideas stated explicitly and/or inferentially by providing a mostly accurate analysis and supporting the analysis with adequate textual evidence.	The student response demonstrates limited comprehension of ideas by providing a minimally accurate analysis and supporting the analysis with limited textual evidence.	The student response demonstrates no comprehension of ideas by providing inaccurate or no analysis and little to no textual evidence.
Writing Written Expression	<p>The student response</p> <ul style="list-style-type: none"> addresses the prompt and provides effective development of the topic that is consistently appropriate to the task by using clear reasoning and relevant, text-based evidence; demonstrates effective coherence, clarity, and cohesion appropriate to the task; uses language effectively to clarify ideas, attending to the norms and conventions of the discipline. 	<p>The student response</p> <ul style="list-style-type: none"> addresses the prompt and provides some development of the topic that is generally appropriate to the task by using reasoning and relevant, text-based evidence; demonstrates coherence, clarity, and cohesion appropriate to the task; uses language to clarify ideas, attending to the norms and conventions of the discipline. 	<p>The student response</p> <ul style="list-style-type: none"> addresses the prompt and provides minimal development of the topic that is limited in its appropriateness to the task by using limited reasoning and text-based evidence; or is a developed, text-based response with little or no awareness of the prompt; demonstrates limited coherence, clarity, and/or cohesion appropriate to the task; uses language that demonstrates limited awareness of the norms of the discipline. 	<p>The student response</p> <ul style="list-style-type: none"> is undeveloped and/or inappropriate to the task; lacks coherence, clarity, and cohesion; uses language that demonstrates no clear awareness of the norms of the discipline.
Writing Knowledge of Language and Conventions	The student response to the prompt demonstrates full command of the conventions of standard English at an appropriate level of complexity. There may be a few minor errors in mechanics, grammar, and usage, but meaning is clear .	The student response to the prompt demonstrates some command of the conventions of standard English at an appropriate level of complexity. There may be errors in mechanics, grammar, and usage that occasionally impede understanding , but the meaning is generally clear .	The student response to the prompt demonstrates limited command of the conventions of standard English at an appropriate level of complexity. There may be errors in mechanics, grammar, and usage that often impede understanding .	The student response to the prompt demonstrates no command of the conventions of standard English. Frequent and varied errors in mechanics, grammar, and usage impede understanding .

Narrative Task Rubric

Construct Measured	Score Point 3	Score Point 2	Score Point 1	Score Point 0
Writing Written Expression	<p>The student response</p> <ul style="list-style-type: none"> • is effectively developed with narrative elements and is consistently appropriate to the task; • demonstrates effective coherence, clarity, and cohesion appropriate to the task; • uses language effectively to clarify ideas, attending to the norms and conventions of the discipline. 	<p>The student response</p> <ul style="list-style-type: none"> • is developed with some narrative elements and is generally appropriate to the task; • demonstrates coherence, clarity, and cohesion appropriate to the task; • uses language to clarify ideas, attending to the norms and conventions of the discipline. 	<p>The student response</p> <ul style="list-style-type: none"> • is minimally developed with few narrative elements and is limited in its appropriateness to the task; • demonstrates limited coherence, clarity, and/or cohesion appropriate to the task; • uses language that demonstrates limited awareness of the norms of the discipline. 	<p>The student response</p> <ul style="list-style-type: none"> • is undeveloped and/or inappropriate to the task; • lacks coherence, clarity, and cohesion; • use of language demonstrates no clear awareness of the norms of the discipline.
Writing Knowledge of Language and Conventions	<p>The student response to the prompt demonstrates full command of the conventions of standard English at an appropriate level of complexity. There may be a few minor errors in mechanics, grammar, and usage, but meaning is clear.</p>	<p>The student response to the prompt demonstrates some command of the conventions of standard English at an appropriate level of complexity. There may be errors in mechanics, grammar, and usage that occasionally impede understanding, but the meaning is generally clear.</p>	<p>The student response to the prompt demonstrates limited command of the conventions of standard English at an appropriate level of complexity. There may be errors in mechanics, grammar, and usage that often impede understanding.</p>	<p>The student response to the prompt demonstrates no command of the conventions of standard English. Frequent and varied errors in mechanics, grammar, and usage impede understanding.</p>