2nd Grade ELA Q4 Curriculum Guide 2016-2017

Team Members: Whitelaw & Pollara

Quarter #4 - Reading Non-Fiction Cover to Cover and Writing Science Lab Reports (March 21-June 7)

In reading this unit, students will aim to boost their nonfiction reading to gain a deeper understanding and work on their speaking and listening skills as they teach others about major observations and main ideas from their books. Our writing unit will correlate well with Quest, as students learn how to write lab reports and about science topics they are interested in. Researching information from our reading unit will translate well into our writing, prompting students to transfer skills across their learning.

Unit Topics & Objectives

Reading Non-Fiction Cover to Cover

- Draw on everything they know about information reading, thinking about how parts of the book go together and how to use a "teaching voice" to share findings in non-fiction book clubs
- Holding meaningful conversations, making inferences, revising thinking and growing ideas in non-fiction book clubs
- Comparing and contrasting two or more books on the same topic to develop thinking

Writing Science Lab Reports

- Learning how to write about science through looking back on procedural writing (how to), using observations to teach others about new discoveries and conclusions they have draw and learning from others to improve our writing.
- Comparing experiment results and reading more on the topic to ask further questions
- Designing and writing new experiments. Working on self and peer editing for detail, structure and conventions
- Writing information books on science topics by looking to mentor texts and considering how to address an audience

ELA Personalized Learning Approach

Students will work in differentiated groups based on their individual needs. Instruction will be a combination of: whole class instruction, small group instruction, partner work and independent work. Differentiated groups will be determined through ongoing formal and informal assessments and will support their work in strategy and guided reading groups.

Student Work
The majority of student work will be completed within their Reader's and Author's notebooks. This year, Charlotte Lab School is using an online portfolio system called SeeSaw, which enables students to independently showcase what they are learning in each one of their content areas. Both students and teachers are able to view and assess progress and growth over time. In ELA, students post to SeeSaw to share their current work and progress toward their personalized goals. Teachers provide regular feedback as well. Families are invited to also leave encouraging comments on their student's work as well.

Homework and Home-School Connections
Homework will consist of daily reading and will be assigned as needed to complete in-class tasks and for extra practice. Students will be encouraged to read and write independently or with adults whenever possible and appropriate. Students will also have a reading log for their out of school reading to foster independence and reflection on their reading habits. Families are NOT expected to sign this log. Students are responsible for filling out their logs in order for teachers to discuss and reflect on the student's book choices, stamina, and reading habits.

We also encourage parents to review SeeSaw at home with their children; this allows parents to connect with what your child is learning in ELA. Here are some other things you can do at home to reinforce the learning that is taking place at school:

- *Track the books and genres that your child is reading at home*
- *Set goals for the minutes spent reading and add time to build stamina*
- *Have your child go on RAZ kids to listen to and read a book aloud, then answer comprehension questions*
- *Discuss the book with your child and ask him/her inferential question stems provided*

Teacher-Parent Communication
The best way to communicate general questions is through your student's advisor because multiple teachers work with each student. If a specific ELA question arises, please directly email the ELA team and an answer will be provided within 48 hours.
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2nd Grade Math Q4 Curriculum Guide 2016-2017

Team Members: Hollands, Newswanger, & Serrano

Quarter #4 - Addition & Subtraction with Regrouping, Multiplication & Fractions
(March 21- June 7)
In this quarter students will spiral back through the 2nd grade curriculum, specifically Addition & Subtraction with Regrouping, Multiplication and Fractions; this is a time for students to solidify their understanding of foundational skills (place value, basic addition and subtraction, skip-counting and partitioning) to prepare them for the work they will be doing in 3rd grade. The following topics will be touched upon in small groups: Graphing, Measurement, Telling Time and Money. If/when your child shows mastery of a 2nd grade skill, s/he will still study the same topic, but move onto 3rd grade objectives.

Unit Topics, Objectives & Vocabulary
Below is a list of the topics that will be covered this quarter. While this represents pacing for a typical 2nd grader, teachers will group students according to their level of mastery in each of these concepts and will personalize pacing and work for the students.

Topics	**Objectives** Students will...	**Vocabulary**
Number, Operations and Algebraic Thinking		
Addition/ Subtraction with Regrouping	• Use place value to add/subtract/regroup numbers within 1000 • Fluently add and subtract within 100/1000 • Explain why addition and subtraction strategies work • Solve one and two-step word problems • Add and subtract using place value on a number line • Rounding numbers	*Add, subtract, addend, sum, minuend, subtrahend, difference, regrouping, borrowing, place value, thousands, hundreds, tens, ones, number line*
Multiplication	• Use multiplication within 100 involving equal groups, repeated addition, and arrays • Skip-counting by 2s, 5s, 10s, and 100s within 1000 • Understanding multiplication principles • Solve word problems involving multiplication	

Geometry & Fractions		
Describing and Identifying Fractions	• Describe the equal shares using *halves, thirds, half of, a third of,* etc. • Describe the whole as *two halves, three thirds, four fourths* • Recognize that equal shares of identical wholes need not have the same shape • Solve word problems involving fractions of a set and of a whole • Represent fractions on a number line	*fraction, part, whole, group, partition, half, halves, thirds, half of, a third of, whole, two halves, three thirds, four fourths, half-circle, quarter-circle, equal shares, partition*

Math Personalized Learning Approach
Personalized learning is instruction that offers specific curriculum and learning environments that meet each individual student's needs. Students will approach the content in a variety of ways and paces based upon their mastery of each concept.

Student Work
This year, Charlotte Lab School is using an online portfolio system called SeeSaw, which enables students to independently showcase what they are learning in each one of their content areas. Both students and teachers are able to view and assess progress and growth over time. In Math, parents are able to view snapshots of some of the content activities that are taking place in class. Ask your children to explain the learning that these pictures reflect!

In addition, students are expected to correct and comment on their work as needed and teachers will provide weekly feedback on their submitted work through the Seesaw program. Students should have relevant and current Do Now math problems in their binders behind the Math tab and in their Math journals.

Homework and Home-School Connections
Homework will be assigned as needed to complete in-class tasks and for extra practice. If homework is assigned, its purpose is to ensure that students are practicing independently at home. We also encourage parents to review SeeSaw at home with their children; this allows parents to connect with what your child is learning in Math and do some follow-up activities at home.

Teacher-Parent Communication
The best way to communicate general questions is through your student's advisor because multiple teachers work with each student. If a specific Math question arises, please directly email the Math team and an answer will be provided within 48 hours.
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2nd Grade Quest Q4 Curriculum Guide 2016-2017
Engineering Simple Machines and Contraptions

Hartzell (dhartzell@charlottelabschool.org)

The Challenge

Third grade students have been charged by Ms. Markle to create the field day games for CLS students and staff to enjoy on June 6, 2017… and second grade students wanted to join in on the action! Knowing Charlotte's spring climate, there is a real possibility of a rainy day on June 6. So 2nd grade questers will learn about force and motion and simple machines in order to engineer Rube Goldberg machines just in case Field Day needs to be inside for part of the day. Or maybe students and staff will just need a fun break from the sun that day and still want to learn some science.

The Quest

In this Quest, students will study force, motion, and simple machines with the goal of creating Rube Goldberg machines for LAB students to enjoy. These contraptions provide a real world opportunity for students to apply what they have learned about force, motion, and simple machines as they create interactive kid-friendly contraptions for their own peers at Charlotte Lab School. Collaborating in groups with some individual work, students will be exposed to a variety of design opportunities to better understand simple machines. Students will design and make a creative Rube Goldberg chain reaction for CLS students to play at CLS field day on June 5, 2017. They will also continue to add educational videos to our Quest YouTube channel in hopes of teaching kids everywhere how to enjoy science while learning at the same time!

Course Objectives

Big Ideas	**Content & Concepts**	**Survival Skills**
How do simple machines help make things work? **How is the design process used by engineers?**	*NC Science Standards* 3.P.1.2 Students know that speed can vary. Students know that varying the speed of a moving object will affect the time it takes for the object to travel a particular distance. *ISTE Standards Technology Skills* - Video and photo - Digital evaluation	***Agility and Adaptability***: Uses failures to inform future design decisions and tries multiple solutions based on failures. ***Collaboration:*** Works with others in a group and understands the importance of compromising to achieve a common goal. ***Creativity:*** Develops and uses crazy and unnecessary steps (in Rube Goldberg style!) for their machine to complete established goals.

Course Outline

All students will learn necessary background knowledge about simple machines and then work with peers and teachers to move through their Quest Path, completing related activities along the way to building Field Day Rube Goldberg machines.

Week	**Topics/Activities**
1 **3/21-3/24**	**Kick off of the Quest:** - Science Pre Test on Simple Machines - Great examples of Rube Goldberg machines - Short intro to 6 simple machines
2 **3/27-3/31**	**Science: Gravity and Work Distribution** - What makes something move? - How does an inclined plane simplify work? - What factors affect movement? **Process:** - Organize label/space and create a materials inventory - Introduce roles - Use Google sheets to track inclined plane trials - Complete multiple inclined plane trials with added obstacles/contraptions
3 **4/3-4/7**	**Science: Inclined Planes and Levers** - How do multiple trials affect long-term outcomes? - How is work distributed when using inclined planes and levers? - What are the parts of inclined planes and levers? What makes them successful/unsuccessful? - Where/how are inclined planes/levers used in the real world? **Process** - Use Google Sheets to track inclined plane and lever trials - Experiment and build contraptions to add to Rube Goldberg machines - Complete a slow motion video to show work being completed by inclined plane or lever - Showcase a 5+ step Rube Goldberg machine
4 **4/17-4/21**	**Science: Wedges and Screws** - How is work distributed when using wedges and screws? - What are the parts of a screw? What makes screws/wedges successful/unsuccessful? - Where/how are wedges/screws used in the real world? **Process:** - Use Google Sheets to track Rube Goldberg trials - Complete Cardboard Challenge addition to Rube Goldberg machine - Complete a slow motion video to show work being completed by a screw or wedge
5 **4/24-4/28**	**Science: Wheels and Axles and Pulleys** - How is work distributed when using wheel and axle and pulleys? - What are the parts of a wheel and axle and pulley? **Process:** - Use Google Sheets to track Rube Goldberg trials - Complete 10+ step Rube Goldberg machine - Complete a slow motion video to show work being completed by a wheel and axle or pulley

6 **5/1-5/5**	**Science: Simple Machine Review** - How are simple machines combined to make work easier? **Process:** - Take Apart Day: students will take apart a used toy/product and identify/explain simple machines and how they distribute work
7 **5/8-5/12**	**Testing and Iteration** - Test Rube Goldberg Field Day Machines and make changes as needed - Peer review
8 **5/15-5/19**	**Rube Goldberg Field Day Machines Due** - Post Assessment on Simple Machines and Force/Motion
9 **5/22-5/26**	**Adding Explanations and Videos** - **Tech rotation**- QR codes, YouTube channel videos - Creating written explanations of simple machines to display with display
10 **5/29-6/2**	**Final Preparations** - Final explanations and labels due. - All field day materials must be complete.
11 **6/5-6/9**	**Field Day Set Up and Day of event**

2nd Grade Quest Rube Goldberg Field Day Game Rubric

Science Content: ❑ Uses all 6 simple machines: _____ ❑ Explains work distribution of 6 simple machines: _____	**Comments:**
Effectiveness: ❑ Works from start to finish with no help ❑ Adds creative elements and contraptions ❑ Teaches something about simple machines to the audience.	**Comments:**
Design: ❑ Is it stable/durable? ❑ Is it original and unique? ❑ Is it neat and professional looking?	**Comments:**
Communication and Presentation: ❑ Includes labels and explanations ❑ Written work follows 2nd grade standards for writing conventions	**Comments:**

Student Work, Homework & Home-School Connections

In Quest, students post to SeeSaw to share their current work and progress toward their Quest goals. Teachers provide regular feedback as well. Families are also invited to leave encouraging comments on student work. Homework will only consist of students being creative about contributions to our Rube Goldberg materials. They can start by bringing in used items (shoebox or smaller, please!) such as dominoes, pieces of tracks, anything with wheels, marbles, or balls- especially ping pong balls! If you have additional questions, **try contacting *Dave Hartzell* on Marco Polo for an insider's look at your student's work!**

World Languages & Cultural Studies (Novice Mid Spanish)
Q4 Curriculum Guide 2016-2017

Team Members: Castro, Morales & Benitez

Quarter #4 - Change Over Time (March 21-June 7)
In this quarter, students will learn and explain how people change over time, the impact of how life events bring change, how seasons change over time, and affect our environment. They will also learn how jobs benefit people and the community by spending money to meet their basic needs and wants. Students will explore how the economy is a diverse, mutually supportive web of producers and consumers, supply and demand, and trade and bartering with other countries.

Unit Objectives & Vocabulary

Interpretive Communication (Reading/Listening Comprehension)

- Independent Reading Level - read a **Level A-B** book independently
- Pronunciation and Fluency - read and pronounce sight words/phrases correctly and fluently
- Vocabulary/High Frequency Words - read and understand vocabulary/high frequency words taught
- Decoding Skills - read and decode 24 consonant and 5 vowel sounds
- Main Idea and Details - identify the main idea and details within a read aloud or independent reading book (in English)
- Connections - make personal connections between the text and self (in English)

Interpersonal Communication (Conversation)

- Speak with Fluency
- Pronounce Words and Phrases Correctly
- Use Everyday Phrases and Vocabulary

Presentational Communication (Writing / Speaking)

- Language Function (Writing) - use letter sounds to spell and write words
- Language Function (Speaking) - speak using interrogative sentences in 2- to 3- words phrases when presenting
- Comprehensibility - is understood when speaking and presenting information

Economics and Financial Literacy

- Explain how families have needs and wants and how jobs help people meet their needs.
- Give examples of ways in which businesses in the community meet the needs and wants of consumers.
- Explain why people and countries around the world trade for goods and services.
- Explain how money is used for saving, spending, borrowing and giving.

History and Culture

- Explain how people change over time and the impact of how life events bring change
- Explain how and why neighborhoods/ communities change

Students will understand and use the following vocabulary words:
necesidad, deseo, bienes, servicio, dinero, cambios, tiempo, productores, consumidores, vecindario, comunidad, familia

World Languages Personalized Learning Approach
In World Languages each quarter, students are exposed to the project-based approach. Students work in differentiated groups throughout these projects based on their individual needs. Instruction is a combination of: whole class instruction, small group instruction, partner work and independent work. Differentiated groups are determined through ongoing formal and informal assessments and support their work in reading, writing, speaking and listening.

Student Work
This year, Charlotte Lab School is using an online portfolio system called SeeSaw, which enables students to independently showcase what they are learning in each one of their content areas. Both students and teachers are able to view and assess progress and growth over time. In World Languages, students post to SeeSaw bi-weekly to share their current work and progress toward their personalized goals. Teachers will provide feedback weekly as well. Families are invited to also leave encouraging comments on their student's work as well.

Homework and Home-School Connections
Homework will only consist of daily reading, weekly conversational prompts, and work that students did not finish during the school day. There will be no formally assigned homework this year. Research has been unable to prove that homework improves student performance. Rather, we ask that you spend your evenings doing other activities that correlate with student success - reading, writing, speaking with and listening to your child in Spanish and using Quizlet/Duolingo to reinforce Spanish vocabulary.

Teacher-Parent Communication
The best way to communicate general questions is through your student's advisor because multiple teachers work with each student. If a specific World Languages question arises, please directly email the World Languages team and an answer will be provided within 48 hours.
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Elizabeth Benitez - ebenitez@charlottelabschool.org

2nd grade World Language & Cultural Studies (Chinese)
Curriculum Guide - 2016-2017, Liao (lliao@charlottelabschool.org)

Quarter #4 - Professions, School, & Food (March 21 - June 7)
In this unit, students will learn how to say the professions and to understand the importance of the roles in the community. Also, students will learn how to say the objects in the classroom and describe them using the positional words. Finally, students will learn how to say different types of Chinese food and will read books to help them understand the Chinese culture. In addition to speaking and listening, students will begin to practice writing characters and reading phrases.

Unit Topics, Goals and Connections to NC Social Studies Essential Standards

Topic	**Goals**	**NC Social Studies Essential Standards**
Professions	Students will learn how to say the professions. Vocabulary: *doctor, nurse, chef, teacher, artist, athlete, actor, police, president* Sentence: *I want to be____.*	Civic and Government
School/ Classroom	Students will learn how to say the objects in the classroom and to use the positional words. Vocabulary: *classroom, table, chair, bookshelf, TV, whiteboard, color marker, color pencil, glue, crayons, tissue, above, beneath, left, right* Sentence: *There are____in the classroom.*	Geography and Environment
Chinese Food	Students will learn how to say different types of Chinese food. Vocabulary: *chopsticks, bowl, spoon, fork, soy sauce, spring roll, white rice, noodles, tofu, bun, dumpling, fried rice* Sentence: *I want to eat_____.*	Culture
Writing	Students will begin to write simple characters.	
Reading	Students will start to practice reading phrases.	

World Languages Learning Approach
In World Languages each quarter, students will be exposed to the project-based approach. Students will work in differentiated groups throughout these mini-projects based on their individual needs. Instruction will be a combination of: whole class instruction, small group instruction, partner work and independent work. Differentiated groups will be determined through ongoing formal and informal assessments and will support their work in reading, writing, speaking and listening.

Student Work
Students have a Chinese Book in which they will collect most of their work, and a radical writing book in which they will practice writing radicals in class. This year, Charlotte Lab School is also using an online portfolio system called SeeSaw, which enables students to independently showcase what they are learning in each one of their content areas. Both students and teachers are able to view and assess progress and growth over time. In World Languages, students will post to SeeSaw weekly to share their current work and progress toward their personalized goals. Teachers will provide feedback weekly as well. Families are invited to also leave encouraging comments on their student's work as well. For more information about SeeSaw go to - http://web.seesaw.me/learn-more.

Homework and Home-School Connections
Homework will only consist of conversational prompts and work that students did not finish during the school day. There will be no formally assigned homework this year. Research has been unable to prove that homework improves student performance. Rather, we ask that you spend your evenings doing other activities that correlate with student success - reading, writing, speaking with and listening to your child in Chinese. We will provide some weekly guidance for which topics to discuss at home.

Resources
North Carolina Social Studies Essential Standards
NCSSFL-ACTFL Can-Do Statements Progress Indicators for Language Learners
NCSSFL-ACTFL Proficiency Guide
My First Chinese Words
I Can Write