

# 1st Grade Curriculum Guide

## **Workshop Model & Personalized Learning Approach**

At Charlotte Lab School, teachers use the Workshop Model for instruction in all content areas. They start class with a mini-lesson where they teach and model a specific strategy, skill or concept. Then students have an opportunity to practice with support first, then independently with groups and/or with partners. During this portion of the workshop, Lab personalizes learning by differentiating tasks, pacing and learning environments that meet each individual student's needs to ensure that students show proficiency in each objective. The type of differentiation is based on ongoing formal and informal assessments and will support their strategy and guided groups. At the end of the workshop, the teachers will bring the students back together to share and reflect on what they have learned.

## **Student Work**

The majority of student work will be completed within their notebooks and returned in folders or binders. K-3 students at Lab use SeeSaw, an online portfolio system, which enables students to showcase what they are learning in each of their content areas. Both students and teachers are able to view and assess progress and growth over time. Students post to SeeSaw to share their current work and progress toward their personalized goals. Families are invited to leave comments and questions on their child's work that will further engage them in the learning process. New for the 2018-19 school year, students will have personal student trackers for each content area unit; this will allow students to hold themselves accountable for the "I can" statements or objectives they are learning, the work they are completing, and the concepts in which they are proficient. This will also be a way for Advisors to have an ongoing dialogue with students about what and how they are doing in class. These trackers will go home every 6 weeks along with a hard copy portfolio of the students' work for the unit.

## **Homework and Home-School Connection**

Homework will consist of work that students did not finish during the school day or differentiated work that the students are assigned for additional practice. Therefore, other than reading nightly, there will be no formally assigned homework. 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 - discussing tasks from SeeSaw/books that they're reading, eating dinner together, playing outside, participating in after school activities, and getting your student to bed early. Some suggestions for extended work are:

- ELA - ELA - reading aloud with your child at home and completing a log of the books you read; students can also access RAZ kids for texts and comprehension questions;
- Math - reviewing Math facts and working on IXL and Prodigy for repetition and overall Math success;
- Quest - reviewing Science & Humanities concepts/survival skills from Quest journals and projects;
- World Languages - reviewing Spanish and Chinese vocabulary on Quizlet and Duolingo.

## **Parent-Teacher Communication**

The best way to communicate general questions is through your student's advisor. If a specific content area question arises, please email your child's content area teacher directly and a response will be given within 48 hours. Here are the faculty members that work with the 3rd grade:

- **Samantha Dreyer**, 1st grade Math & Quest (grade chair) ([sdreyer@charlottelabschool.org](mailto:sdreyer@charlottelabschool.org))
- **Morgan Winnestaffer**, 1st grade ELA ([mwinnestaffer@charlottelabschool.org](mailto:mwinnestaffer@charlottelabschool.org))
- **Natalia Guerrero**, 1st grade WL/CS Spanish ([nguerrero@charlottelabschool.org](mailto:nguerrero@charlottelabschool.org))
- **Stefanny Fulcher**, K/1 Math/Quest Assistant & 1st grade Advisor ([sfulcher@charlottelabschool.org](mailto:sfulcher@charlottelabschool.org))
- **Mitch Carraway**, Director of Technology & 1st grade Advisor ([mcarraway@charlottelabschool.org](mailto:mcarraway@charlottelabschool.org))
- **Meegan Whelan**, LS Guidance Counselor & 1st grade Advisor ([mwhelan@charlottelabschool.org](mailto:mwhelan@charlottelabschool.org))
- **Julie Dellibovi**, Director of Student Services & 1st grade Advisor ([jdellibovi@charlottelabschool.org](mailto:jdellibovi@charlottelabschool.org))
- **Kristen Lockwood**, K/1 ELA Assistant ([klockwood@charlottelabschool.org](mailto:klockwood@charlottelabschool.org))
- **Elizabeth Benitez**, K/1 Spanish Assistant ([ebenitez@charlottelabschool.org](mailto:ebenitez@charlottelabschool.org))
- **Leslie Chambers**, EC Teacher ([lchambers@charlottelabschool.org](mailto:lchambers@charlottelabschool.org))
- **Brittany Newswanger**, EC Teacher ([bnewswanger@charlottelabschool.org](mailto:bnewswanger@charlottelabschool.org))
- **Lee-Jung Liao**, K-3 Chinese ([lliao@charlottelabschool.org](mailto:lliao@charlottelabschool.org))

## English Language Arts

Winnestaffer, Lockwood & Chambers

### Lab Approach to ELA

Students work in differentiated groups based on their individual needs and reading levels. Instruction will be a combination of: whole class instruction, small group instruction, book clubs, partner work and independent work. Differentiated groups will be determined through ongoing Fountas & Pinnell 1:1 reading assessments and pre-/post- unit assessments that support their work in strategy and guided reading groups.

Note: Content order subject to change in accordance with meeting student needs

### Trimester #1 (August 27 - November 20)

In these initial units, “Readers and Writers Build Good Habits” and “Small Moments: Writing with Focus, Details, and Dialogue,” students will focus on expectations, routines and procedures involved with Reader’s and Writer’s Workshop. They will develop skills to independently access grade level appropriate texts and know what to do when they lose their way or become stuck. In writing, students will study what authors do to make great stories and write their own narrative stories that are focused, full of details, and easy to read. In our second unit, “Word Detectives Use All They Know to Solve Words,” students will learn strategies for using high frequency words and for decoding. “Writing How-To Books,” focuses on procedural writing. Students will learn how to write explicit directions in the correct sequence. They will also work on writing multiple books per week to increase their writing fluency and proficiency.

| Reading  | Writing  |
|--|--|
| <p><b>Readers / Writers Build Good Habits</b></p> <p>Students will...</p> <ul style="list-style-type: none"> <li>● Follow Workshop procedures and explore Writing process</li> <li>● Predict before reading and check predictions during reading</li> <li>● Read / write and discuss texts with partners</li> <li>● Match the story to the pictures</li> <li>● Build stamina as readers, reading longer and stronger</li> <li>● Build stamina as writers, building independence</li> </ul> <p><b>Word Detectives</b></p> <p>Students will...</p> <ul style="list-style-type: none"> <li>● Self-monitor and check for understanding</li> <li>● Use sight words to support fluency</li> <li>● Utilize information in text to solve unknown words</li> <li>● Use pictures clues to support reading</li> <li>● Make sure writing can be read</li> <li>● Look at books they are reading to help with writing</li> </ul> | <p><b>Small Moments: Writing with Focus, Details, and Dialogue</b></p> <p>Students will...</p> <ul style="list-style-type: none"> <li>● Zoom in on one event</li> <li>● Add action, dialogue, feelings, thoughts to bring stories to life</li> <li>● Revise/edit writing to make it easy to read</li> <li>● Revise/edit for punctuation and capitalization</li> <li>● Look at books that they are reading to help with writing</li> <li>● Write and discuss writing with partners</li> </ul> <p><b>Writing How-To Books</b></p> <p>Students will...</p> <ul style="list-style-type: none"> <li>● Write sequenced directions</li> <li>● Use precise language</li> <li>● Include action, transition words, tips and warnings</li> <li>● Consider their audience</li> <li>● Revise/edit writing to make it easy to read</li> <li>● Revise/edit for punctuation and capitalization</li> <li>● Look at books that they are reading to help with writing</li> <li>● Write and discuss writing with partners</li> </ul> |

### Trimester #2 (November 27 - March 1)

Our third unit in Reader’s and Writer’s Workshop will focus around nonfiction texts. Students will be studying features of and understanding how to access nonfiction texts in Reader’s Workshop. They will also be writing about topics they are experts on to teach others with their own nonfiction “All About” books in Writer’s Workshop. Reading will not only focus on decoding the text now, but also making “jottings” and asking questions as we read to allow us to write detailed written responses. The fourth unit in Reader’s

Workshop will focus on comprehension. Students will study characters and use clues from the text and illustrations to infer the character's thoughts, actions, dialogue, or feelings. They will learn how to embody the character and perform in their reading partnerships. In Writer's Workshop students will write reviews that share their opinion. They will explain their arguments in a convincing way by including reasons and supporting details. Students will use a persuasive voice that talks directly to their readers.

| Reading  | Writing   |
|--|---|
| <p><b>Learning About the World By Reading</b></p> <p>Students will...</p> <ul style="list-style-type: none"> <li>● Gain meaning from text</li> <li>● Think deeply about concepts and ideas</li> <li>● Navigate nonfiction, understanding it is reading for facts, details, and ideas</li> <li>● React to text and justify thinking with evidence</li> <li>● Notice author's craft; use author's techniques in writing</li> </ul> <p><b>Readers Get to Know Characters by Performing Their Book</b></p> <p>Students will...</p> <ul style="list-style-type: none"> <li>● Decoding Skills - Self monitor and use fix it strategies</li> <li>● Fluency - Read fluently and with expression</li> <li>● Story Elements - Identify story elements</li> <li>● Inferential Thinking -               <ul style="list-style-type: none"> <li>○ Use clues in illustrations and the text to infer</li> <li>○ Imagine what the characters might think or say</li> <li>○ Pretend to be the character</li> <li>○ Visualize scenes within their books</li> </ul> </li> </ul> | <p><b>Non-fiction Chapter Books</b></p> <p>Students will...</p> <ul style="list-style-type: none"> <li>● Study topic with focus</li> <li>● Use words, pictures, labels and text features to comprehend text and share information</li> <li>● Notice, define and use specialized vocabulary</li> <li>● Ask and answer key details in text</li> <li>● Organize ideas into categories</li> <li>● Use text features</li> </ul> <p><b>Reviews</b></p> <p>Students will...</p> <ul style="list-style-type: none"> <li>● Revising and Editing Texts - Work with a partner to give/receive feedback</li> <li>● Structure -               <ul style="list-style-type: none"> <li>○ Collect opinion topics</li> <li>○ Write with a persuasive voice</li> <li>○ Notice author's craft</li> </ul> </li> <li>● Development / Elaboration -               <ul style="list-style-type: none"> <li>○ Include reasons and supporting details</li> <li>○ Use a catchy introduction and conclusion to hook the reader</li> </ul> </li> </ul> |

**Trimester #3** (March 5-June 5)

In this trimester, students will become a "boss" of their reading while focusing on fluency, phonics, and comprehension. Students will learn and add new tools to their list of already known strategies to read tricky words. They will use self-monitoring tools to help them understand the books that they read. At the end of the unit, readers will use everything they know to make their reading sound the very best. In writing, students will be working on the unit, From Scenes to Series: Writing Fiction. Students will call on their pretending skills to invent characters and small moment adventures, and then children will come up with characters of their own, naming them, and putting them into imaginary scenarios. Students will then choose a character, stick with this character, and create a series of adventures for this character to experience. In our next reading unit, students will practice before, during, and after reading strategies. Before they read the books, students will learn how to activate their prior knowledge by previewing the story and by making predictions. While they read, students will study the character, character's feeling and actions to help them understand what they are reading. After they read, students will retell the big ideas in the text and reflect on any lessons the character might have learned.

| Reading   | Writing   |
|---|---|
| <p><b>Readers have big jobs to do: Fluency, Phonics, and Comprehension</b></p> <p>Students will...</p> <ul style="list-style-type: none"> <li>● Use strategies to learn tricky words</li> </ul> | <p><b>From Scenes to Series: Writing Fiction</b></p> <p>Students will...</p> <ul style="list-style-type: none"> <li>● Create stories that include a problem and a solution</li> </ul> |

- Will stop throughout their reading to check for understanding
- Will use context clues to determine tricky words
- Ask themselves "Does this word make sense? Does it look right? Does it sound right?"
- Make their reading sound the way they talk

### Meeting Characters and Learning Lessons: A Study of Story Elements

Students will...

- Preview stories to get ready to read
- Retell the story with big ideas
- Reread to smooth out their voices and show big feelings
- Discover character's feelings and actions

- Include chapters with a beginning, middle, and end
- Elaborate to make their stories come to life
- Stretch out words to make their writing clear and easy to read.
- Use checklists to set goals for themselves

## Mathematics

Dreyer, Fulcher & Newswanger

### Lab Approach to Math

In 1st grade, students will be placed in different groups throughout the Math block based on individual needs, strengths, and levels. Groups will change as needed throughout the year according to informal and formal assessments. Students will do a variety of tasks using 1:1 correspondence and manipulatives. Towards the end of the year, 1st grade students will start Math Learning Pathways which will further help us to differentiate our lessons and send students on a learning progression.

### Trimester #1 (August 27- November 20)

During this unit, students will build upon the mathematical knowledge that they gained in Kindergarten. They will continue to collect data and represent it in the form of graphs. They will also work with numbers regularly in the tens place - comparing, adding and subtracting them. By the end of the unit, students will be able to collect and record data that they collected in bar graphs and picture graphs. They will also be able to use a variety of strategies to add and subtract within 20, compare numbers, and use symbols to represent numbers in equations.

### Unit Topics, Objectives & Vocabulary

| <u>Topics</u>            | <u>Objectives</u><br>Students will...   | <u>Vocabulary</u>   |
|--------------------------|---|---|
| <b>Graphing</b>          | <ul style="list-style-type: none"> <li>Collect data and represent it using bar and picture graphs</li> </ul>  | <i>data, information, graph, chart</i>  |
| <b>Place Value</b>       | <ul style="list-style-type: none"> <li>Understand the value of ones and tens place</li> </ul>   | <i>place, ones, tens, value</i>   |
| <b>Comparing Numbers</b> | <ul style="list-style-type: none"> <li>Compare numbers to show "greater than," "less than" and "equal to"</li> <li>Visually compare objects in size and quantity (which is more, less, bigger, smaller, etc.)</li> <li>Build towers bigger or smaller</li> <li>Building towers that look like pictures shown</li> </ul> | <i>comparing, less than, greater than, equal to, least, greatest, order, first, second, third, last</i> |
| <b>Addition</b>          | <ul style="list-style-type: none"> <li>Represent and solve problems involving addition</li> <li>Add within 20</li> <li>Work with addition equations</li> <li>Use a symbol for the unknown number in an addition equation</li> <li>Understand the Commutative/ Associative properties</li> </ul>                         | <i>adding, sum, adding to, putting together, altogether</i>   |
| <b>Subtraction</b>       | <ul style="list-style-type: none"> <li>Represent and solve problems involving subtraction</li> <li>Subtract within 20</li> <li>Work with subtraction equations</li> <li>Use a symbol for the unknown number in a subtraction equation</li> </ul>  | <i>subtracting, taking away, taking apart, taking from, difference</i>                                  |

### Trimester #2 (November 27- March 1)

During this unit we will continue to explore a variety of strategies to add and subtract numbers. We will also begin to classify shapes by attributes and learn how to partition rectangles and circles into halves and quarters. The concept of time will also be covered by identifying, hours, half hours, and minutes. Students will explore the concept of measurement by first measuring items using standard units such as paper clips. Students will then compare objects from smallest to largest or largest to smallest.

## Unit Topics, Objectives & Vocabulary

| <u>Topics</u>                   | <u>Objectives</u><br>Students will...   | <u>Vocabulary</u>  |
|---------------------------------|---|--|
| <b>Addition and Subtraction</b> | <ul style="list-style-type: none"> <li>Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count</li> <li>Use addition and subtraction within 20 to solve word problems</li> <li>Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20</li> <li>Apply properties of operations as strategies to add and subtract</li> <li>Understand subtraction as an unknown-addend problem</li> <li>Relate counting to addition and subtraction</li> <li>Add and subtract within 20, demonstrating fluency for addition and subtraction within 10</li> </ul> | <i>adding, sum, adding to, putting together, altogether, subtracting, taking away, taking apart, taking from, difference</i>   |
| <b>Geometry</b>                 | <ul style="list-style-type: none"> <li>Distinguish between defining attributes versus non-defining attributes; build and draw shapes to possess defining attributes</li> <li>Compose two-dimensional shapes or three-dimensional shapes to create a composite shape, and compose new shapes from the composite shape</li> <li>Partition circles and rectangles into two and four equal shares</li> <li>Understand for these examples that decomposing into more equal shares creates smaller shares</li> </ul>  | <i>measure, order, length, height, more, less, longer than, shorter than, first, second, third, gap, overlap, about, a little less than, a little more than, halves, fourths, quarters, half of, fourth of, quarter of</i>   |
| <b>Measurement</b>              | <ul style="list-style-type: none"> <li>Order three objects by length; compare the lengths of two objects indirectly by using a third object</li> <li>Express the length of an object as a whole number of length units</li> <li>Understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps</li> </ul>  | <i>shape, closed, open, side, attribute, feature, two-dimensional, rectangle, square, trapezoid, triangle, half-circle, and quarter-circle, three-dimensional, cube, cone, prism, cylinder, equal shares, halves, fourths, quarters, half of, fourth of, quarter or circle, rectangle, hexagon, sphere</i> |
| <b>Time</b>                     | <ul style="list-style-type: none"> <li>Tell and write time in hours and half-hours using analog and digital clocks</li> </ul>   | <i>time, hour, half-hour, about, o'clock, past, "six"-thirty</i>   |

### Trimester #3 (March 5 - June 5)

Throughout this unit, first graders will be revisiting data collection and diving even deeper into place value, addition and subtraction within 100. At first, students will review place value by building numbers and adding and subtracting numbers through multiple strategies. It will be important for students to explain their thinking and reason why their answers to problems makes sense. Using this background, students will be collecting and comparing numbers and multiple forms of data through observation, surveys and research, and use this information to categorize information into graphs. Through graphing, students can compare and order numbers to solve real world problems. By the end of this unit, students will be able to use their knowledge of place value to help add and subtract two-digit numbers in equations and in word problems.

## Unit Topics, Objectives & Vocabulary

| <u>Topics</u>                             | <u>Objectives</u><br>Students will...   | <u>Vocabulary</u>  |
|---|---|--|
| <b>Understanding Place Value</b>          | <ul style="list-style-type: none"> <li>• Use concrete models or drawings to add and subtract multiples of 10 from multiples of 10</li> <li>• Understand that when adding and subtracting two-digit numbers, you can decompose numbers and add/subtract tens to tens and ones to ones</li> </ul>   | <i>place, ones, tens, hundreds, value, regrouping, Hundreds Chart, decompose</i>     |
| <b>Adding Numbers</b>                     | <ul style="list-style-type: none"> <li>• Understand and apply properties of operations and the relationship between addition and subtraction</li> <li>• Add a two-digit number to a one-digit number</li> <li>• Add a two-digit number and 10</li> <li>• Relate an addition or subtraction strategy and explain the reasoning</li> </ul>              | <i>adding, sum, adding to, putting together, altogether</i>                          |
| <b>Subtracting Numbers</b>                | <ul style="list-style-type: none"> <li>• Subtract a one-digit number from a two-digit number</li> <li>• Subtract 10 from a two-digit number</li> <li>• Understand and apply properties of operations and the relationship between addition and subtraction</li> <li>• Relate an addition or subtraction strategy and explain the reasoning</li> </ul> | <i>subtracting, taking away, taking apart, taking from, difference</i>               |
| <b>Comparing Numbers</b>                  | <ul style="list-style-type: none"> <li>• Compare numbers as represented in charts and graphs</li> </ul>   | <i>compare, less than, greater than, equal to</i>                                    |
| <b>Problem-Solving</b>                    | <ul style="list-style-type: none"> <li>• Represent and solve addition and subtraction problems</li> </ul>   | <i>story problems, strategy, draw, represent, symbol, equation</i>                   |
| <b>Adding Numbers within 100</b>          | <ul style="list-style-type: none"> <li>• Use concrete models and strategies based on place value</li> <li>• Add a two-digit number to a one-digit number</li> <li>• Add a two-digit number and 10</li> <li>• Relate an addition or subtraction strategy and explain the reasoning used</li> </ul>   | <i>adding, sum, adding to, putting together, altogether, tens and ones</i>           |
| <b>Representing and Interpreting Data</b> | <ul style="list-style-type: none"> <li>• Organize, represent, and interpret data with up to three categories</li> <li>• Ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another</li> </ul>   | <i>data, information, graph, chart, same, different, category, question, collect</i> |

## Quest

Dreyer & Fulcher

### Lab Approach to Quest

How Lab defines a “quest” is *a real and meaningful challenge (real work that real people do in real world jobs) that help students to understand and practice skills that they will remember 20 years in the future!* While quests are heavily rooted in Science, the Quest activities that students engage in are inherently interdisciplinary; they focus on a variety of science content, Tony Wagner’s 7 Survival Skills and Design Thinking. Throughout each quest, students explore the community, meet with field experts in the field and gain valuable hands-on experience.

### Trimester #1: Presenting New Playground Ideas & Integrated Engineering 1 (August 28-November 20)

#### The Challenge

What is something that you think should be added to the playground that will make it more exciting? First grade students will decide what equipment they would like to add to the playground if they were given the chance to present their ideas to the PTSO. The students will survey others and go to other playgrounds. They will need to also understand how the new equipment will work when they are explaining it to the PTSO. The First grade class will learn about force and motion, the history of play, and playgrounds from around the world. Students will create their new equipment out of different supplies and explain how the equipment works.

#### Course Description

In this First Trimester Quest, students will fulfill goals and objectives set by NC First Grade Science Standards as they focus on how forces affect the motion of an object. Students will learn about simple machines and have the opportunity to learn how push and pull affect motion. Through our Quest, we will analyze the importance of playgrounds in the community as well as looking at this topic from a global perspective. After exposure to urban playgrounds around us, hands-on exploration of playground equipment and simple machines, integration of simple machine characteristics and conversations with experts in the field, we will build our own playground equipment models.

#### Course Objectives

In addition to the NC Essential Science Standards for First Grade, students will work in this Quest to investigate and practice Three of Tony Wagner’s Survival Skills:

- **Collaboration Across Networks and Leading by Influence:** Interacting and involving others, helping out, being kind
- **Curiosity and Imagination:** generates ideas, brainstorms with group members, is open minded
- **Effective Oral and Written Communication:** demonstrates presentation skills, understands audience, writes/draws clearly and purposefully

| Big Ideas / Targets   | Teaching Points  |
|---|--|
| What is play and why is it important?                                   | <ul style="list-style-type: none"> <li>● Brainstorm why play is important</li> <li>● Talk about what we will be learning about in this Quest</li> <li>● What does it mean to play?</li> </ul>  |
| Learn about different playgrounds around Charlotte and around the world | <ul style="list-style-type: none"> <li>● What equipment do most playgrounds have?</li> <li>● Look at playgrounds around the world. What is the same and what is different?</li> <li>● Begin talking about forces in motion</li> <li>● Learn about push and pull</li> </ul>                               |
| Push and Pull activities  | <ul style="list-style-type: none"> <li>● Students will learn about push and pull vocabulary</li> <li>● What do students think of when they hear these different vocabulary words?</li> <li>● Students will be given the chance to use balls and other things to experiment with push and pull</li> </ul> |



|  |  |
|--|--|
| History of play  | <ul style="list-style-type: none"> <li>• What did play look like a long time ago?</li> <li>• When was the first playground created?</li> <li>• Timeline of how playgrounds evolved</li> </ul>  |
| Visit different playgrounds                                | <ul style="list-style-type: none"> <li>• Students will visit different neighborhood playgrounds</li> <li>• What makes these playgrounds different?</li> <li>• What makes them the same?</li> <li>• Do some playground have some more equipment that uses pull or push?</li> </ul>  |
| Begin talking about final project                          | <ul style="list-style-type: none"> <li>• Talk about collaboration for projects</li> <li>• Group students together and have them survey older students about what they would want to add to the playground</li> <li>• Post a wish box at the classroom for anyone to create comments about what they would want to add</li> </ul> |
| Use gathered information to create ideas for new equipment | <ul style="list-style-type: none"> <li>• Students will graph data from findings</li> <li>• Students will bring materials from home and create their new playground equipment</li> <li>• Students will figure out and discuss how they can present their information to PTSO board</li> </ul>                                     |
| Planning final presentation                                | <ul style="list-style-type: none"> <li>• Students will do a dress rehearsal in front of Vikki</li> <li>• They will give them feedback.</li> </ul>  |
| Presentation in front of PTSO                              | <ul style="list-style-type: none"> <li>• Students will present information</li> </ul>  |

### Integrated Engineering 1

During this first Trimester, Quest students will fulfill goals and objectives set by NC First Grade Science Standards as they are introduced to Engineering Design. Students will learn what it means to be an Engineer and how Engineers create things to make tasks easier. Students will use their engineering skills to create new equipment for the playground out of recycled materials.

| Big Ideas / Targets         | Teaching Points  |
|-----------------------------|--|
| What is an Engineer?        | <ul style="list-style-type: none"> <li>• Has anyone heard of an engineer?</li> <li>• What do engineers do?</li> <li>• Does anyone know an engineer?</li> </ul>   |
| Cardboard Table Challenge   | <ul style="list-style-type: none"> <li>• How is a table put together?</li> <li>• What do all tables have?</li> <li>• How could you plan to make a table?</li> <li>• What happens if your table turns into a ramp?</li> <li>• Talk about push and pull</li> </ul> |
| Create playground equipment | <ul style="list-style-type: none"> <li>• How can you use recycled materials to create another part of the playground?</li> <li>• Can you explain forces and motion as well push and pull?</li> </ul>   |

### Trimester #2: Charlotte Nature Guide and Engineering Integration 2 (November 27- March 1)

#### The Challenge

What if your first grader could take you on a tour of the wildlife around Charlotte? As our challenge this trimester we will be creating a field guide and learning about the different habitats, different animals, and ways that we can help save the wildlife. Through research, a visit to Discovery Place Nature, and collaboration, the students will gain the knowledge necessary to create this field guide.

#### Course Description

This First Grade Quest focuses on the NC Essential Science Standards regarding environments, plants and animals. Students will learn about characteristics of living and nonliving things, environments, adaptations and needs of plants and animals, specifically in the North Carolina regions: mountains, piedmont and coastal plains. Class time will involve lots of challenge based and inquiry learning where students problem solve to move along in their content knowledge. We will visit Discovery Place Nature to explore the exhibits and learn more about animals that live in North Carolina and what habitats they live in. The students will develop a love and appreciation for animals found throughout North Carolina.

## Unit Objectives

In addition to the NC Essential Science Standards for First Grade, students will work in this

Quest to investigate and practice three of Tony Wagner's Survival Skills:

- **Collaboration Across Networks and Leading by Influence:** Interacting and involving others, helping out, being kind
- **Curiosity and Imagination:** generates ideas, brainstorms with group members, is open minded
- **Effective Oral and Written Communication:** demonstrates presentation skills, understands audience, writes/draws clearly and purposefully

| Big Ideas / Targets   | Teaching Points  |
|---|--|
| What is the difference between living and nonliving things? | <ul style="list-style-type: none"> <li>● Talk about these terms</li> <li>● Talk about what we will be learning about in this Quest</li> <li>● Picture sort, living vs nonliving</li> </ul>   |
| Learn all about habitats                                    | <ul style="list-style-type: none"> <li>● What does the word habitat mean?</li> <li>● What habitat do we live in?</li> <li>● What are some other habitats in North Carolina?</li> <li>● Habitat project</li> </ul>  |
| Classifying animals/Field trip to Discovery Place Nature    | <ul style="list-style-type: none"> <li>● Share habitat projects and learn about which animals live in what habitat</li> <li>● Discovery Place Nature field trip</li> <li>● Research animal groups. How do they go together?</li> <li>● What habitats do they live in?</li> </ul> |
| Animal Adaptations  | <ul style="list-style-type: none"> <li>● Think about some important things about animals: What happens if you feed them too much? What happens if there are too many in the same area?</li> <li>● How do they camouflage?</li> </ul>   |
| Animals and plants need each other                          | <ul style="list-style-type: none"> <li>● Learn about food chains</li> <li>● Difference in food chains in different habitats</li> </ul>   |
| Life cycle of a plant                                       | <ul style="list-style-type: none"> <li>● Learn all about it</li> <li>● Talk about what plants need to be healthy</li> </ul>  |
| Begin working on final project                              | <ul style="list-style-type: none"> <li>● Work on field guide</li> <li>● Create book of things we have learned and think about the important things we need to include</li> </ul>   |
| Keep working on project                                     | <ul style="list-style-type: none"> <li>● Students will keep working on their book</li> </ul>   |
| Presentation  | <ul style="list-style-type: none"> <li>● Students will present information and share</li> </ul>  |

## Engineering Integration 2

During the final Trimester, Quest students will continue to fulfill goals and objectives set by NC First Grade Science Standards as they apply their engineering skills. Students will be research, design and create shoebox habitats.

| Big Ideas / Targets     | Teaching Points  |
|-------------------------|--|
| Build an Animal Habitat | <ul style="list-style-type: none"> <li>● Students will use shoeboxes to create a habitat</li> <li>● What are the important parts of a habitat? What does it need to include?</li> <li>● What should it look like?</li> </ul> |
| Dissecting a seed       | <ul style="list-style-type: none"> <li>● Learn what happens when you open up a seed</li> <li>● Explore the inside of a seed and talk about its different parts</li> </ul>  |

## Trimester #3: Space Exploration Scavenger Hunt and Engineering Integration 3 (March 5 - June 5)

### The Challenge

As a first grade class, the students will use their creativity to let others know how important the moon, sun, stars, and planets are to our everyday life. We will read the book "If I Were the Moon". The students will use the structure of this book to help space "come alive". The students will have to figure out how to become the moon, sun, stars, and planets. They will teach adults and other students through their final presentation. By exploring in class, looking up at the sky, and field trips, the students will gather the information they need.

## Course Description

The Second Trimester Quest aligns with the 1st Grade Earth and Universe Science Standards. Students will be exposed to astronomy, planetariums and the Earth's movements through observation, building and research. Students will become aware of the way the sun, stars, moon and Earth are all connected. The students will understand the role of an astronomer and the tools they use to be successful and accurate at their job.

## Course Objectives

In addition to the NC Essential Science Standards for First Grade, students will work in this Quest to investigate and practice three of Tony Wagner's Seven Survival Skills:

- **Collaboration Across Networks and Leading by Influence:** Interacting and involving others, helping out, being kind
- **Curiosity and Imagination:** generates ideas, brainstorms with group members, is open minded
- **Effective Oral and Written Communication:** demonstrates presentation skills, understands audience, writes/draws clearly and purposefully

| Big Ideas / Targets   | Teaching Points  |
|---|--|
| What is the difference between light and dark?                            | <ul style="list-style-type: none"> <li>● Brainstorm where we see light in school, where we see dark</li> <li>● Talk about what we will be learning about in this Quest</li> <li>● What are the different types of light we see?</li> </ul> |
| Shadows   | <ul style="list-style-type: none"> <li>● Go outside and look at our shadows</li> <li>● Talk about how shadows are created</li> <li>● Talk about how shadows cannot exist without a light source</li> </ul>                                 |
| Compare and Contrast Night and Day  | <ul style="list-style-type: none"> <li>● Talk about what we see in the sky at night vs the day</li> <li>● Talk about what it means to stay safe in the day as well as the night</li> <li>● What does "safe" mean?</li> </ul>               |
| Earth in the universe and the sun   | <ul style="list-style-type: none"> <li>● Where is Earth in the solar system?</li> <li>● Create a rhyme or song to remember the planets</li> <li>● Discuss that all planets orbit the sun</li> <li>● Talk about solar eclipses</li> </ul>   |
| What is a moon?   | <ul style="list-style-type: none"> <li>● Why does the moon's appearance change every day?</li> <li>● Observe the moon's changes over time.</li> </ul>  |
| Continue talking about the moon   | <ul style="list-style-type: none"> <li>● Lunar Eclipses</li> <li>● Make Lab to show how sun, earth, and moon are related</li> <li>● Read <i>If I Were the Moon</i></li> </ul>  |
| Introduce final project   | <ul style="list-style-type: none"> <li>● Talk about what students will be doing for final project, give them groups</li> <li>● Teach children what telescopes and spectrosopes are</li> <li>● Talk about planetariums</li> </ul>           |
| Continue working on final project/ How do you measure objects in the sky? | <ul style="list-style-type: none"> <li>● Keep working on final project</li> <li>● Make sure students have all information on their planet, star, or moon</li> <li>● They will practice becoming their space character</li> </ul>           |
| Presentation  | <ul style="list-style-type: none"> <li>● Students will present</li> </ul>  |

## Engineering Integration 3

During the second Trimester, Quest students will continue to fulfill goals and objectives set by NC First Grade Science Standards as continue to explore Engineering Design. Students will be amateur rocket scientists as they learn how to make and fly paper rockets. Students will use the engineering process focusing on observation and iteration as they design their paper rockets.

| Big Ideas / Targets               | Teaching Points   |
|-----------------------------------|---|
| How do you create a paper rocket? | <ul style="list-style-type: none"> <li>● Plan to create a paper rocket</li> <li>● What is the purpose?</li> <li>● How do I make one?</li> <li>● Observe a paper rocket launch</li> </ul>          |
| Paper Rockets                     | <ul style="list-style-type: none"> <li>● Make one</li> <li>● Launch them and also talk about astronauts and what it is like to go into space</li> </ul>   |
| Moon Phases Experiment            | <ul style="list-style-type: none"> <li>● The children will learn how the sun, moon, and earth are all related.</li> <li>● They will learn and create the different phases of the moon.</li> </ul> |

# World Languages & Cultural Studies

## Novice Mid/ Spanish

Guerrero & Benitez

### Lab Approach to World Languages/Cultural Studies

Twenty-first century schools must reflect the modern world and workplace through a commitment to global awareness, bilingualism, and diversity. The World Languages & Cultural Studies program at Lab is designed to give students authentic opportunities to engage in language learning and learn to interact positively across cultural barriers. The target language (Spanish) will be used as much as possible by both teachers and students during the World Language & Cultural Studies block. Lessons are carefully planned so that students can understand and enjoy the activities that will help them learn and explore the world.

### Trimester #1 Timeline (August 27-November 20)

| <u>Unit Topic</u>                            | <u>Student Goals</u>  | <u>Vocabulary</u>   |
|--|---|---|
| <b>Rules/Family</b>                          | <ul style="list-style-type: none"> <li>I can understand why rules are needed at home, school, and community</li> <li>I can name family members using single words and memorized phrases.</li> <li>I can compare different types of families.</li> <li>I can identify my family customs, traditions, and celebrations.</li> </ul>  | <p><b>Vocabulary:</b> familia, mamá, papá, hermano(a), tío(a), prima(o), abuelo(a).</p> <p><b>HFW:</b> soy, es, tengo</p> <p><b>Phrases:</b> Mi mamá se llama... Mi mamá es... Mi mamá tiene...</p> <p><b>Phonemes:</b> o, a, i, u, e, m, p, s, l, t, d, r, c, n, f, b, j</p>   |
| <b>Community helpers/ Places in the City</b> | <ul style="list-style-type: none"> <li>I can understand how the classroom is its own community.</li> <li>I can describe places in the community using simple words and phrases (home, classroom, school and community)</li> <li>I can describe different kinds of jobs that people do and the tools or equipment used.</li> </ul> | <p><b>Vocabulary:</b> comunidad, lugares de la comunidad, bombero, panadero, artista, doctor, dentista, policía, granjero</p> <p>la casa, el hospital, la escuela</p> <p><b>HFW:</b> quiero, quiere, gusta</p> <p><b>Phrases:</b> Yo quiero ser... Él quiere ser... Me gusta..... El doctor va a...</p> <p><b>Phonemes:</b> g, ch, n, v, ll, qu, z, h, y, x, k, w, ma, sa, ra, la, fa, na, ja, na</p> |

### Trimester #2 Timeline (November 27-March 1)

| <u>Unit Topic</u>                               | <u>Student Goals</u>   | <u>Vocabulary</u>   |
|---|--|---|
| <b>Landforms/ Directions, Globe, &amp; Maps</b> | <ul style="list-style-type: none"> <li>I can identify familiar landscapes.</li> <li>I can identify and locate land and water features on maps and globes.</li> <li>I can identify characteristics of various landforms and bodies of water.</li> </ul>   | <p><b>Vocabulary:</b> río, montañas volcán, playa, lago, árboles, océano, valle, isla, desierto.</p> <p><b>HFW:</b> yo voy</p> <p><b>Phonemes:</b> lla, za, ya, ba, ta, da, ca, ga, pa, va, cha, ha, me, se, le, re</p>   |
| <b>Animals/ Habitats</b>                        | <ul style="list-style-type: none"> <li>I can name different animals and their habitats.</li> <li>I can identify the basic needs of a variety of different animals (including air, water, and food) for energy and growth.</li> <li>I can describe the life cycle of a butterfly and frog.</li> </ul> | <p><b>Vocabulary:</b> animal, grande, pequeño, nadar, correr, volar, alas, patas, ojos.</p> <p><b>Phrases:</b> La vaca es... El delfín puede... El gato tiene...</p> <p><b>HFW:</b> el, la, vive, come, puede</p> <p><b>Phonemes:</b> ce, ne, fe, je, ge, ne, lle, ze, ye, pe, te, de</p> |

**Trimester #3 Timeline (March 5-June 5)**

| <u>Unit Topic</u>           | <u>Student Goals</u>   | <u>Vocabulary</u>   |
|-----------------------------|--|---|
| <b>Plants (Needs/Wants)</b> | <ul style="list-style-type: none"> <li>I can mention basic needs of plants (including air, water, nutrients, and light) for energy and growth.</li> <li>I can describe the life cycle of a plant.</li> <li>I can explain how families have needs and wants.</li> <li>I can understand how jobs help people meet their needs and wants.</li> </ul>  | <p><b>Vocabulary:</b> planta, hoja, flor, tallo, sol, agua, semillas, tierra, raíces, pétalo</p> <p><b>HFW:</b> necesito</p> <p><b>Phonemes:</b> be, che, ve, que, he, mi, pi, si, li, ti, di, ni, bi, fi, ni, vi, hi</p>                                   |
| <b>Celebrations</b>         | <ul style="list-style-type: none"> <li>I can compare languages, traditions, and holidays of various cultures.</li> <li>I can explain why national holidays are celebrated.</li> <li>I can compare and contrast similarities and differences between self and others</li> <li>I can gain deeper understanding of own and other's language and culture (food, dress).</li> <li>I can describe my own and other's celebrations and traditions.</li> </ul> | <p><b>Vocabulary:</b> comida, tradición, , ropa, fiesta, idioma, cultura, celebración.</p> <p><b>Phonemes:</b> qui, ri, chi, lli, ji, gui, gi, ci, mo, po, so, lo, to, do</p> <p><b>Phrases:</b> Yo celebro... Nosotros celebramos... Ellos celebran...</p> |

**Assessments**

These tools will give teachers and students a variety of data to show progress on specific learning objectives.

| <u>What is the assessment?</u>                        | <u>What does it measure?</u>   | <u>How will it be used?</u>  | <u>When will it be used?</u>          |
|---|--|--|---------------------------------------|
| <b>Performance Rubric</b>                             | In the comprehension, conversation, and presentation, this rubric measures how well a student is able to communicate in the target language.                                       | Students will participate in performance tasks to demonstrate their ability to use the target language in a real-world context. Teachers will use the rubric to give feedback and show progress throughout the year.                   | At the end of each unit per trimester |
| <b>Fountas &amp; Pinnell Reading Level Evaluation</b> | This evaluation (which is also used to determine ELA Reading levels at Lab) collects data on a student's oral fluency, comprehension, and ability to make connections with a text. | Reading levels will be used to provide students with targeted practice to help them develop vocabulary, familiarity with sentence structures, and opportunities to practice decoding and interpreting meaning from a variety of texts. | 1-2x/ year (as needed)                |
| <b>Personal Student Trackers</b>                      | Students will be assigned to tasks that will allow them to prove that they can do the communicative tasks or demonstrate the cultural competencies listed for each unit above.     | Students will record their own growth areas and performance with "I can statements." Students will also reflect on their learning.   | By unit                               |

## World Languages & Cultural Studies

### Novice Mid/ Chinese

Liao

#### Lab Approach to World Languages/Cultural Studies

Twenty-first century schools must reflect the modern world and workplace through a commitment to global awareness, bilingualism, and diversity. The World Languages & Cultural Studies program at Lab is designed to give students authentic opportunities to engage in language learning and learn to interact positively across cultural barriers. The target language-Chinese-will be used as much as possible by both teachers and students during the World Language & Cultural Studies block. Lessons are carefully planned so that students can understand and enjoy the activities that will help them learn and explore the world.

#### Trimester #1 (August 27 - November 20)

| Topic          | Students Goals  | Vocabulary   |
|----------------|---|--|
| Transportation | I can say the transportation.<br>I can say how I go to school.<br>I can understand why people use different transportation. | car, taxi, airplane, bicycle, train, boat, bus, school bus<br>That is_____.                                  |
| Feelings       | I can say how I feel.   | happy, sad, angry, scared, excited, nervous, very, a little, not feeling well, sick, pain(hurt). I am _____. |
| Body Movements | I can say different body movements.<br>I can say the animals and their movements.   | walk, jump, run, crawl, fly  |
| Writing        | I can write 20+ Chinese radicals.   |  |

#### Trimester # 2 (November 27 - March 1)

| Topic       | Students Goals                    | Vocabulary  |
|-------------|-----------------------------------|---|
| Shapes      | I can say the shapes.             | triangle, square, rectangle, oval, circle, diamond, star<br>This is _____.                      |
| Zoo Animals | I can say the animal in the zoo.  | Panda, bear, polar bear, kangaroo, tiger, lion, giraffe, elephant, gorilla<br>I have seen_____. |
| Writing     | I can write 25+ Chinese radicals. |   |

#### Trimester # 3 March 2 - June 5

| Topic         | Students Goals                   | Vocabulary   |
|---------------|----------------------------------|--|
| Chinese Food  | I can say the Chinese Food.      | soy sauce, dumplings, bun, noodle, white rice, fried rice<br>I like_____<br>I don't like_____.                             |
| American Food | I can say the American food.     | hamburgers, fries, fried chicken, sandwich, soda, salad, candy, cracker, chicken nugget<br>I like_____. I don't like_____. |
| Writing       | I can write 25+ Chinese radicals |  |

## Humanities

1st grade teachers & Advisors

### **Overview**

We implement the National Curriculum Standards for Social Studies created by the National Council for the Social Studies into all of our core classes and Advisory. We know that the inclusion of Social Studies into all of our content areas is critical to helping our students become competent civic participants by building the knowledge, intellectual processes, and democratic dispositions that are required to be active and engaged in public life.

### **The Standards**

The National Council for the Social Studies organizes its standards around ten major themes for grades K-12 and then breaks the standards down into developmentally appropriate knowledge, processes, and products for the early grades, middle grades, and high school. The ten themes that organize our social studies strands are:

- Culture
- Time, Continuity, and Change
- People, Places, and Environments
- Individual Development and Identity
- Individuals, Groups, and Institutions
- Power, Authority, and Governance
- Production, Distribution, and Consumption
- Science, Technology, and Society
- Global Connections
- Civic Ideals and Practices

### **Lab Approach to Humanities**

Each trimester, 3-4 themes will be chosen as the focus for each grade level. Each content area teacher will determine how / if those themes can be incorporated into their planned units or Quests. By the end of the year, all ten themes will have been covered in each grade level through at least one, if not more, content area class. With each trimester progress report, families will get grade-level specific information on how Humanities and the ten Social Studies themes were integrated into each student's learning.