

## Curriculum Overview: Including Cluster “Roadmaps”

Curriculum is an intentional design for learning developed by faculty through their specialized knowledge and in the context of students' needs. It is both what one teaches and how one teaches. At PS1, how we teach is as important as what we teach. Our core values of Competence (What we know), Confidence (How we feel about what we know), and Connection (What we do with what we know) provide the foundation for our K-6<sup>th</sup> students. These core values are what make our school unique. Our students develop relationships, strength of conviction, self-knowledge and empowerment. We foster academic learning in consort with interpersonal reasoning. **The following provides an overview of the academic program, with specific bullet points related to each Cluster's curriculum in the following subject areas:**

- Language Arts (Reading and Writing): Page 2
- Math: Page 6
- Social Studies: Page 9
- Science: Page 11
- Technology: Page 13

## **LANGUAGE ARTS**

Language Arts include reading, writing, oral expression, and listening. The goal of the Language Arts curriculum at PS1 is to create citizens who speak, listen, read and write to deepen their own and others' knowledge, and to advocate for themselves and others. PS1 students become confident readers, writers and speakers. Our work aims to prepare students for any reading and writing task they will set or encounter, to turn them into life-long, confident readers and writers who are proactive and independent in their future endeavors.

### **READING**

At PS1 Pluralistic School, we emphasize all aspects of reading. PS1 students read for pleasure, for information, and for learning. Young students begin elementary school with a range of reading and pre-reading abilities and we accommodate all levels. Reading development is not a linear process and although, reading may appear to be "magic" in its development, it is the result of a complex multi-faceted process of learning. Our teachers are trained in the Columbia University Teachers College Reading Program. This includes phonemic awareness, phonics, reading fluency, vocabulary, and reading comprehension strategies. Reading is scheduled into the classroom routine and encouraged as a daily at- home activity. We define reading proficiency as the student's ability to access print accurately and fluently and to relate what he or she reads to vocabulary and content knowledge to ensure comprehension.

### **WRITING**

At PS1, every student is an author. For the youngest students, dictation and transitional spelling help them express their ideas in writing right from the start. It is our goal that children find their voice as a writer. Our teachers are trained in the Columbia University Teachers College Writing Workshop model founded on the work of Lucy Calkins and Donald Graves. At PS1 writing is an essential tool for making meaning.

"Writing doesn't begin with deskwork, but with lifework. Writing should not be simply to recording of details but making significance of them" (Calkins, 1994, p3).

In addition to developing students who have a voice as a writer we also understand that grammar matters. Grammar enables the writer to create a greater subtlety of meaning. Grammar teaching and learning is embedded into the writing process. Grammar education is less about finding errors and more about having the widest range of tools so that students can make the best choices in order to express themselves clearly.

## **SPEAKING AND LISTENING**

PS1 students develop into confident and articulate public speakers (including those who may be shy and quiet). Gaining confidence and comfort expressing one's thoughts and opinions is integrated into every aspect of the curriculum. The sharing of ideas and active listening is central to the school's mission of pluralism. Whether communicating with teachers or peers, in small groups or in front of an audience at all-school Circle Time, students are encouraged to articulate their thoughts, to listen to one another and to build upon each other's ideas. It is a core belief at PS1 that civilized discourse is an essential element of a democratic society, and that these skills must be taught and nurtured throughout childhood.

### **Youngers**

#### **Reading**

- Students learn to identify parts of a book and the information that books provide in a variety of genres.
- Students learn sound-letter relationships.
- Students work in pairs, and one-to-one with teachers to increase their reading fluency.
- Students learn to use cues (pictures and words) to predict and retell what they are reading.

#### **Writing**

- Students write daily and write across a variety of genres.
- They write to express small moments (stories), for information (scientific observations) and to communicate (letters).
- Students develop their story arcs with pictures and words.

### **Bridge**

#### **Reading**

- Through modeling, small-group work, and partner work students are introduced to comprehension, fluency, story structure, annotation, and other reading strategies to support their independent reading.
- Students analyze character development, setting, and plot elements of a book in collaborative groups with peers.

- Students develop fluency, reading strategies, and make inferences and predictions.

## Writing

- Students learn to compose narrative, creative and informative written pieces through modeling and small-group work, and independent content.
- Students develop language, spelling, and grammar skills through literacy centers and language enrichment activities.
- Students plan, revise, publish, and share written pieces.

## Middles

### Reading

- Students are encouraged to interact with their texts while reading. They conference with teachers about their independent books, read in small groups to reinforce skills, and participate in class discussions about a shared book. Engagement with their texts is reflected through their reading journal, where they practice skills taught (such as making inferences with supporting text evidence, envisioning what the author is saying through figurative language, and making connections with characters).

### Writing

- Students develop imaginative, informative, and persuasive texts. Writing is taught as a subject and woven throughout the other areas of the curriculum, including making observations and turning them into reports using the scientific method, drafting historical reflections of their family journeys, and writing personal narratives about small moments.

## Olders

### Reading

- In formal Book Clubs student participate in small reading communities to explore a collective work in a variety of genres. Book clubs encourage discussion, reflection, and collaboration. Students conference with teachers about their independent texts, read in small groups to reinforce skills, and participate in class discussions about a shared book. Engagement with their texts is reflected through their reading journal, where they continue to practice skills taught including using text evidence to support an argument, annotating the text to deepen understanding, and accessing multiple layers of an author's meaning.

- Students develop further reading comprehension skills, focusing on independent reading with an emphasis on uncovering "just right" reading levels. Reading is supported with instruction in fluency and in utilizing strategies for comprehension.
- Students develop a Reader's Notebook (that consists of weekly letters between students and teachers) in order to encourage deep reflection about their reading and the process by which they think about their reading; an essential skill for their education beyond elementary school.

## Writing

- In all writing, there is an emphasis on editing, accuracy, and crafting. In many situations, a rubric is employed.
- Students write in a variety of informational genres, including expository writing, persuasive essays, personal narratives, comparative essays, topical writing, and subject-specific writing, such as scientific lab reports.
- Students develop their voices as creative writers in a Writer's Workshop format, writing fiction and poetry.

## MATH

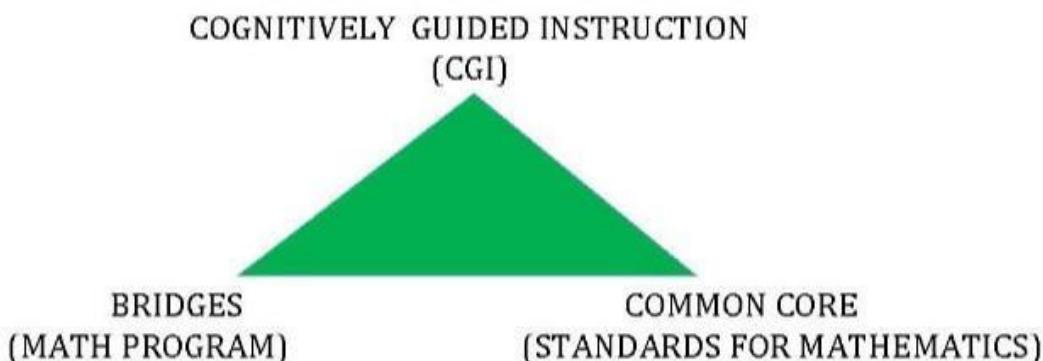
The mathematics curriculum at PS1 consists of three components that interact to create a comprehensive and motivated approach to learning and understanding mathematics. The graphic above depicts the three elements in a triangle with Cognitive Guided Instruction on top, the Bridges math program at one corner and the Common Core Standards for Mathematics (CCSM) at the other corner. The three components together provide a conceptual framework that implements a variety of tools for teaching and clear standards for monitoring students' progress. The math curriculum promotes learning as a collaborative and social endeavor. We teach mathematical learning as a process of constructing meaning to make sense of concepts and require perseverance and willingness to meet challenges.

The overarching goals of PS1's math program are aligned with CGI in creating students who are *problem solvers*, *can communicate mathematically*, and *have mathematical reasoning ability*. As our math tool, the Bridges program includes pre-assessments and assessments for students so that teachers can focus on the needs of each student. From the Bridges website:

"Bridges focuses on developing deep understanding of math concepts, proficiency with key skills, and the ability to solve new and complex problems. Learning activities tap into the intelligence and strengths all students have by presenting mathematically powerful material alive with language, pictures, and movement. Students in a Bridges classroom talk about math, describe observations, explain methods, and ask questions. They are encouraged to find multiple ways to solve problems and show different ways of thinking. This is a vital way to help students build more flexible and efficient ways to solve increasingly complex problems. Hands-on activities engage them in exploring, developing, testing, discussing, and applying mathematical concepts."

The CCSM have a foundation of eight practices that pervade mathematics education at all grade levels. These practices complement and support CGI and Bridges. The Mathematical Practices are:

- Make sense of problems and persevere in solving them.



- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

These three programmatic elements create a robust mathematical curriculum at PS1.

### **Youngers**

- Number Sense: Students build concrete number sense through 20+. They work from concrete to abstract, starting with the use of manipulatives and developing further through pictures, and then to numbers and symbols.
- Problem-Solving: Students explain their mathematical reasoning with partners and in small groups during discussions facilitated by the teachers.
- Mathematical Mindset: Students apply their mathematical understanding to solve real-world problems. This helps them to develop perseverance. Students are encouraged to determine practical strategies, based on their current reasoning skills.

### **Bridge**

- Number Sense: Students build their conceptual number skills through developing vocabulary and explaining their thinking. Student use their prior knowledge to make personal connections to numbers. Computational skills are reinforced through manipulatives and repetition.
- Problem-solving: Students use manipulatives and key vocabulary to deconstruct and solve real-world mathematical problems.
- Mathematical Mindset: Students approach math with perseverance, using practical strategies and reasoning concretely, quantitatively, and abstractly.

### **Middles**

- Number Sense: Students develop number sense through number talks, developing their understanding of the underlying concepts of the operations they perform (addition, subtraction, multiplication, division). Students further develop their mathematical vocabulary and ability to articulate their mathematical thinking. Working with manipulatives reinforces their computational skills.

- Problem-Solving: Students learn multiplication, division, fractions, and geometry. Students also use mathematics to solve real-world problems using measurement, conversions of measurements, estimation of intervals of time, liquid volumes, and masses of objects. Students develop mathematical solutions in various ways and learn to self-check so that their answers make sense.
- Mathematical Mindset: Students practice perseverance, tackling increasingly difficult mathematical challenges. They expand their abstract thinking while using hands-on materials to increase their problem-solving strategies. Through collaboration, students learn a variety of ways to approach and solve problems.

## Olders

- Number Sense: Students are encouraged to think flexibly and develop their confidence with numbers. Students build their ability to make predictions using numbers and increasingly complex number patterns. Students in Olders deepen their number sense through various hands-on activities and student-led lessons and centers.
- Problem-Solving: Through the development of increasingly higher level mathematical thinking, students in the Olders Cluster utilize their knowledge of counting, concepts, and operations for complex problem solving that have real-world applications.
- Mathematical Mindset: Mathematical thinking encourages students to solve real-world problems, conduct mathematical investigations, and showcase their understanding. Students are given the opportunity to display their understanding of a concept with a more detailed analysis. They use counting strategies and derived number facts, do what comes naturally, and model the action and relationships in problems.

## **SOCIAL STUDIES** The theme for the whole school this year is *Perspectives*

A Social Studies theme is the connecting question or concept in a Cluster's transdisciplinary study, informing classroom activities, Learning Expeditions, Literature, Geography, and more. Social Studies themes follow a developmental trajectory. The youngest students learn about things that are close to them, such as families, identity, and heritage, and as the children get older their circles expand to the broader Los Angeles community, then California, the United States, and our global community. This developmental trajectory follows students' widening awareness of themselves with the rest of the world. The social studies values we focus on throughout a child's school experience are IDENTITY, STEWARDSHIP, CITIZENSHIP, COMMUNITY AWARENESS, SOCIAL JUSTICE, ENVIRONMENTAL AWARENESS, and GLOBAL AWARENESS.

### **Youngers**

- Students learn about themselves, developing their sense of personal identity through self-portraits, name studies, and birthday circles.
- To build community, students explore their similarities and differences. This occurs in morning meetings, games, sharing activities, and through relationships with buddy classes. The transdisciplinary units weave the theme of community through the academic subjects.
- Students learn practical, social problem-solving strategies on a daily basis through modeling and storytelling.

### **Bridge**

- Students learn to identify the emotional characteristics of themselves and others. Students are guided to navigate social interactions formally in role-playing and discussing, incorporating stories that illustrate conflict, and informally at recess when teachers scaffold conflict resolution skills.
- Students build their classroom community in the morning meeting and through games. Students learn to be inclusive and take initiative to better their community through a variety of class projects.
- Students focus on understanding and embracing their identity, the diversity of others and how these concepts shape relationships. They learn to recognize unfairness, and understand how to take action through role-playing, read-alouds, discussions, films, inquiries, and Circle Times.

## **Middles**

- Integrating the essential question of, “What are perspectives?” from our transdisciplinary unit, students are examining how one’s perspectives are formed, how they impact society, and how they shape our view of culture.
- Using the Teaching Tolerance domains - identity, diversity, justice and action, students will explore the question: How do perspectives change?

## **Olders**

Integrating the essential question of, “How do a variety of perspectives shape the individual,” the Olders students will explore:

How do perspective gained from past experiences influence our actions?

- How do family stories affect my perspective?
- How can we learn about a variety of perspectives?
- How does perspective(s) shape or alter truth?
- Do all perspectives have equal representations?
- How do we act to represent a variety of perspectives

## **SCIENCE**

We take a three-pronged approach to our science curriculum that follows the Next Generation of Science Standards (NGSS). The majority of the design and engineering work occurs in The Studio, the majority of the disciplinary core ideas lessons happen in the classroom. Students learn to observe, record, hypothesize, examine, and experiment to develop their scientific problem-solving skills. The school addresses a broad scientific theme every year, and the themes rotate between Physical/Earth Science and Life Science. Within these broad themes, NGSS are chosen, and Clusters follow the associated learning goals. Students maintain detailed science journals that they use to record their science learning and retain throughout their years at PS1.

### **Youngers**

- Students learn about their identity as a scientist and use their five senses to make observations about the world.
- Students learn to ask, explore, and make predictions through class experiments and projects.
- Students explore real-world projects to learn about life cycle and life sciences.

### **Bridge**

- Students learn to conduct scientific investigations through an open inquiry approach, recording their observations, data, and conclusions.
- Students study Life Science (adaptation and ecology).
- Students apply their growing knowledge of life science to solve real world problems that relate to preserving life on Earth,

### **Middles**

The Middles Cluster Science Curriculum will be focused on the dynamics of the ecosystems of California. We will specifically focus on how the environment changes and affects the physical characteristics of a place, availability of resources, and ability for organisms to survive and reproduce.

- Students will explore the way that populations live in a variety of habitats and examine how change in those habitats can affect the organisms living there.
- The students will learn to construct an argument to support why some organisms can thrive in an environment and others cannot survive at all.
- The Middles Cluster will evaluate solutions to problems that arise when an environment changes and how this impacts native plants and animals.

## **Olders**

In this Life Science year, Olders students will learn to understand connections between the body systems.

- They will learn to construct and use date to support arguments about how plants and animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways

## **TECHNOLOGY**

Technology is a part of the daily life of the classrooms. Specific software is chosen to enhance learning as another tool for teachers. Specific skills such as keyboarding, word processing, and use of the internet for research are taught. Students create multimedia presentations using iPads or computers. Technology is an integral part of the design and engineering projects that students produce in The Studio. They will use software to design something that they build on the 3-D printer. It is our goal that students become adept and confident with technology as the tools to stimulate and heighten their sense of imagination, discovery, presentation, and exploration.

### **Youngers**

- Students use technology to connect their learning with Studio projects.
- Students use iPads in Studio for simulations and for puzzles that manipulate variables.
- Students develop proficiency using simple and sophisticated tools to create, build and engineer.
- Students share their work with others using a document camera.

### **Bridge**

- Students create multimedia presentations, connecting with Studio projects.
- Students use iPads for research, helping them learn to determine credible sources of information, and navigate websites.
- Students build proficiency by using iPads for skill-building, i.e., phonics, computation, and reading.

### **Middles**

- Technology is integrated with other subject areas as the students use iPads, Chromebooks, and others instruments and tools to answer scientific questions.
- Students are introduced to coding programs.
- Students use software and the 3-D printer to create geometric models and components of their engineering projects.

## **Olders**

Technology in Olders is a tool students use to enhance the core content areas. Students have access to both iPads and Chromebooks to work on their typing skills, complete assignments/essays, and for research and presentation purposes. As preparation for their transition into middle school, the graduating students are required to submit electronic versions of their work more regularly. Technology is also frequently integrated into learning centers, listening centers, and digital learning games. Students build on their understanding of coding programs and have access to both a 3-D printer and a laser scanner.

## **Curriculum Overview Continued:**

### **SERVICE LEARNING**

Service Learning provides PS1 students the opportunity to experience first-hand how they can make a difference in the lives of others. Projects that benefit the community are an excellent way for students to learn about social responsibility, contribution, and stewardship. PS1 has a long history of supporting many groups in our area. Past service learning projects include working with organizations like Step up On Second, The Ocean Park Community Center, SOVA Food Pantry, Boys and Girls Club, Sunshine Retirement Home, and Access Books.

### **LEARNING EXPEDITIONS**

We use the term Learning Expeditions because learning is not limited to that which occurs within the confines of a school. At PS1, our students include much of Southern California as part of their learning environment. Students at all grade levels frequently use the city of Los Angeles as their extended campus, linking concepts and ideas from the classroom to the community. Recent field trips include visits to the Santa Monica Library, the California Science Center's space shuttle Endeavor exhibit, Olvera Street's Dia de los Muertos altars, Baldwin Hills Scenic Overlook to learn about the water cycle, and of course the annual all-school camping trip to Leo Carrillo State Park.

### **SOCIAL AND EMOTIONAL LEARNING**

Social and Emotional Development is ingrained in the DNA of PS1. Since 1971, fostering caring, responsible students who treat each other ethically has been a central goal. Our school environment provides an emotional safety net for children to be willing to learn and take risks. Everyone must feel "I Am Somebody" in order to be a contributing member of the community. We focus on knowing and working to bring out the best in each child to help them develop into the best version of themselves. From the Youngers to the Olders, children are taught interpersonal reasoning. Teachers value the time spent in this pursuit on par with academic learning.