



Synapse School
Curriculum Guide
2025-2026

Synapse School

History

Synapse School was started by Six Seconds in Palo Alto in 2008 as a small learning and teaching lab for children with a primary focus on social and emotional learning. In 2011, Synapse School was incorporated as its own non-profit organization in Menlo Park, Calif. Since then, Synapse has expanded its physical footprint considerably, but more importantly its reach and program. Synapse also adapted its mission statement, codified its vision and values, and intentionally moved from a focus on gifted students to a more inclusive approach.

From 2017 to 2022, Synapse furthered its innovation focus, establishing the Engineering and Design Center, the Brainwave Learning Center in partnership with Stanford University, and the Learning Center for students with diagnosed learning disorders. In 2022, Synapse legally separated from Six Seconds, leased additional space at SportsHouse to accommodate growth, and added a Transitional Kindergarten program. Founded with a strong SEL component and based on neuroscience research, Synapse employs a humanistic, constructivist approach to learning. Now, with 300+ students across six buildings, Synapse continues to evolve, staying true to its mission of integrating Social and emotional learning with innovative educational practices.

Mission: Educating a Community of Change Makers

Vision: To be an aspirational and inspirational model of teaching SEL, innovation, and leading edge academics

Values:

- We Make and Honor Ambitious Commitments
- We Are Positive
- We Go All-In
- We Take Care of Ourselves and Each Other
- We Adapt
- We Give the Benefit of the Doubt

What Does it Mean to Be a Change Maker?

We believe that problem solvers need to be able to develop solutions to challenges and also consider the human implications. They will need to innovate, break new ground and also have the foresight to preserve what's worth sustaining. They need skills to assimilate many forms of data, both logical and emotional, and use these to make creative, strategic and insightful decisions.

We believe that Synapse Change Makers will:

- Impact the world in positive and authentic ways
- Be robustly prepared for real world challenges that require the integration of academic, creative, and social-emotional skill sets
- Not be defined by numbers or by scale: “To make a positive change for one person is to impact the entire world.”

Change Maker Outcomes + Portrait of a Graduate

Practices and habits of mind that encompass our three frameworks for teaching and learning (social-emotional learning, leading-edge academics, and innovation). These are the holistic, measurable outcomes for educating Change Makers.

Synapse educates students to practice the following skills:

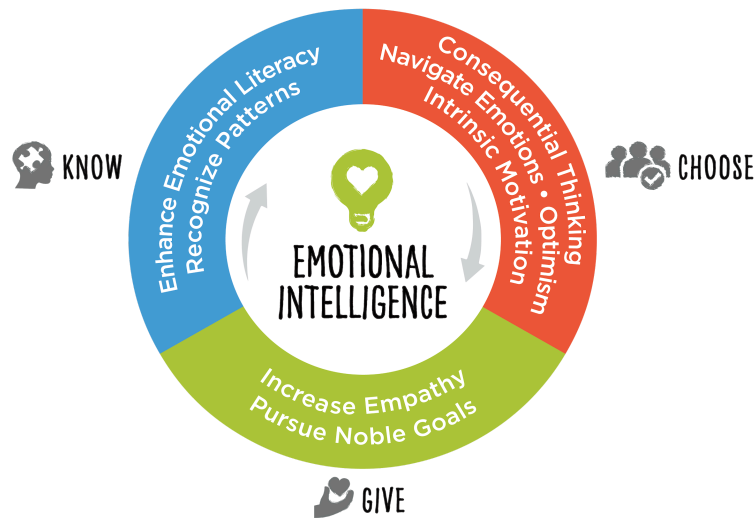
- **Communication:** Converses with various partners, makes room for other voices and participates in reflective listening
- **Perspective:** Recognizes multiple perspectives, and independently considers the influence and impact of those perspectives
- **Feedback:** Accepts feedback, listens, and reacts in an appropriate way. Gives constructive feedback, including questions
- **Creativity:** Creates with vision and pushes outside the box. Uses outside influences appropriately
- **Follow Through:** Follows through on initiatives, commitments, and responsibilities to the best of their ability
- **Inquiry:** Actively and appropriately asks questions in the pursuit of learning
- **Iteration:** Commits to deepen, change and/or improve a concept by considering goals and feedback
- **Advocacy:** Advocates for self and others
- **Risk:** Risks failure in pursuit of a goal or vision

Models + Frameworks for Teaching + Learning

Social and Emotional Learning (SEL)

Social and Emotional Learning (SEL) is our framework for understanding and harnessing the power of emotions. At the heart of the Synapse approach to teaching students, connecting with one another, and inspiring growth is our strong commitment to SEL. Synapse's approach is predicated on the belief that SEL skills are key for academic and lifelong success. With SEL as a central pillar, Synapse is a learning environment in which students, parents, and teachers embrace growth, value diversity, create connection, and pursue their passions.

To provide a practical and simple way to learn and practice emotional intelligence (EQ), Six Seconds developed a three-part model in 1997 as an action plan for using EQ in our daily life as students, teachers and parents. At Synapse, we use the terms "EQ" and "SEL" interchangeably.



Know Yourself: Clearly seeing what you feel and do; emotions are data, and these competencies allow you to accurately collect that information

- Enhance Emotional Literacy - Understanding and expressing emotions accurately
- Recognize Patterns - Identifying emotional triggers and responses

Choose Yourself: Doing what you mean to do; instead of reacting "on autopilot", these competencies allow you to proactively respond

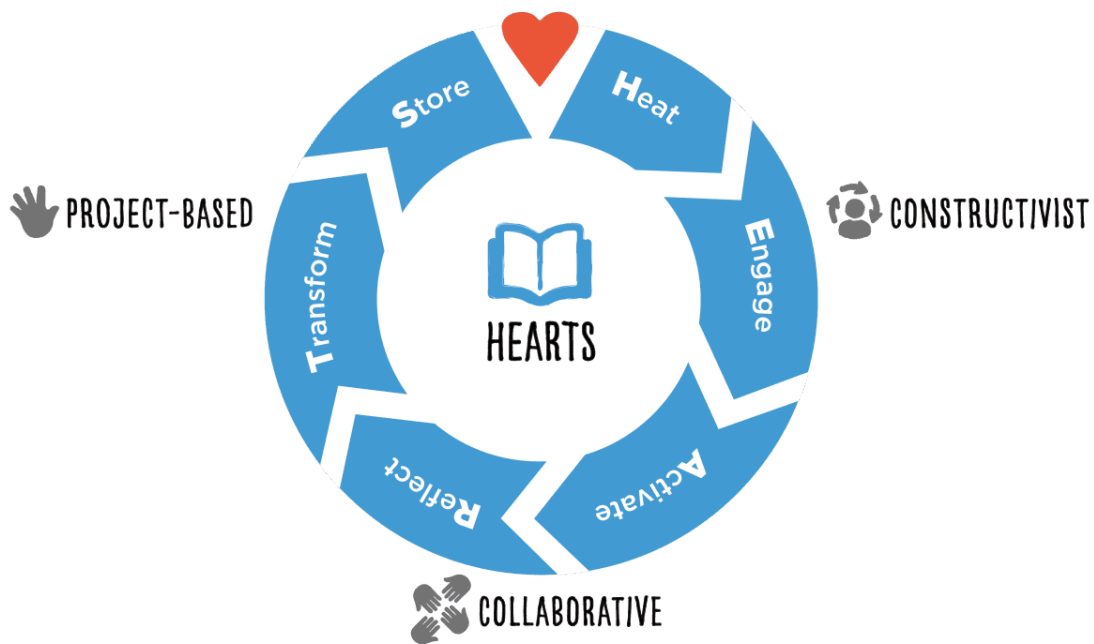
- Apply Consequential Thinking - Evaluating the outcomes of actions
- Navigate Emotions - Managing emotions constructively
- Optimism - Maintaining a positive outlook
- Intrinsic Motivation - Being driven by internal rewards

Give Yourself: Doing it for a reason; these competencies help you put your vision and mission into action so you lead on purpose and with full integrity

- Increase Empathy - Understanding and sharing the feelings of others
- Pursue Noble Goals - Setting and striving for meaningful objectives

The HEARTS Instructional Model (HEARTS)

The HEARTS Instructional Model (HEARTS) is our framework for teaching and learning. This is how we execute our mission and vision of educating change makers. Expanding on Six Seconds' three-step learning approach of Engage, Activate, and Reflect, HEARTS distills all of Synapse's signature constructivist and project-based philosophies into six phases of learning. See below for our model image, a description of each phase, and example activities for each phase.



Phase Explanations

<u>H</u>eat	Begin the day by exercising the brain, body, and heart: community building and morning movement	
<u>E</u>ngage	Create buy-in and build interest to stimulate pre-existing knowledge and set the stage for new learning	By the end of this phase, students should understand the value of the concept or subject and be curious to learn more
<u>A</u>ctivate	Experiential learning, enable students to learn and test new concepts	By the end of this phase, students will have new knowledge plus first-hand experience of the concept
<u>R</u>eflect	Synthesis and integration of new learning	By the end of this phase, students should know what they've learned and have a clear picture of next steps
<u>T</u>ransform	Apply and transfer new knowledge into purposeful and creative projects	By the end of this stage, students should have created something to explain or demonstrate their learning.
<u>S</u>ore	Store new learning through review, short exit ticket exercise, and sharing	By the end of this phase, students should be able to articulate what was learned, why it is important, and have practice sharing their learning with others.

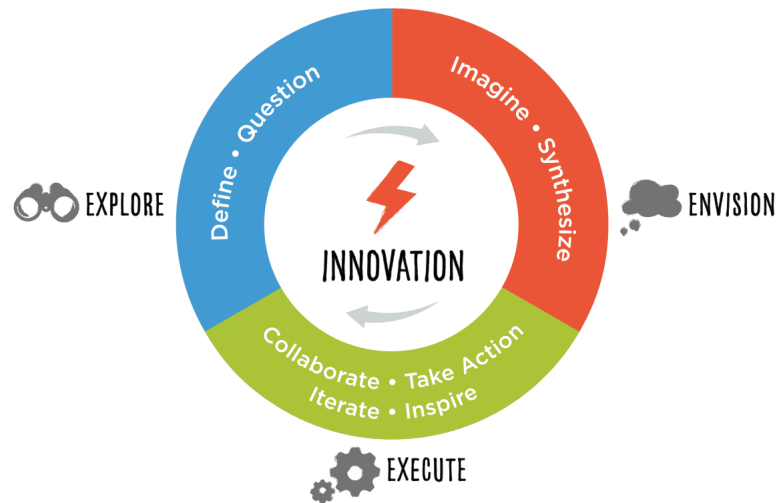
Example activities for each phase

<u>H</u>eat	Morning Meeting & Movement: EQ Check-In, Sharing, Jokes, Acts of Kindness, Announcements, Body Movements, Academic Warm Ups
<u>E</u>ngage	Games, puzzles, role play, inquiry activities, scavenger hunts, improv, dilemmas, # talk, PLAY!
<u>A</u>ctivate	Research, group work, station work/ explorations, modeling, simulations, debates, experimentation and data collection
<u>R</u>eflect	Journaling, drawing, questioning, discussions & debrief
<u>T</u>ransform	Further experimentation or application in a new setting or with new variables, modeling again, create media, develop game
<u>S</u>ore	Teach to a friend, gallery walks, verbal or written exit tickets

The Innovation Model

The Synapse Innovation Model contains eight competencies to help students explore a challenge, envision potential solutions, and execute on their vision. Our model is cyclical to signify that the pursuit for positive change is an iterative and never-ending quest. Our Innovation Model is fueled by our EQ model - Know Yourself, Choose Yourself, Give Yourself. Both models integrate seamlessly to generate a process that is dedicated to a noble goal, in service of others, and inspired by empathy.

At its core, the Innovation Model is a tool for solving problems. It's applicable throughout student projects, and even used by teachers in the curriculum-development process. In the Lower School, we have a class called "Innovation Studios," which is an explicit opportunity to learn about and use the Innovation Model to creatively solve problems. These studios might focus on school or campus-based challenges, personal passions, or even change maker-related issues.



EXPLORE PHASE

- *Question:* Ask insightful and caring questions to discover insights, connections, challenges and opportunities
- *Define:* Identify an opportunity that clarifies a challenge

ENVISION PHASE

- *Imagine:* Visualize, brainstorm and conceive a wide variety of possible solutions
- *Synthesize:* Combine and build on ideas to make better ones

EXECUTE PHASE

- *Collaborate:* Work with others by leading, following and networking to bring your ideas to life
- *Take Action:* Prototype models to represent your ideas
- *Iterate:* Test your models early and often to understand how to improve upon
- *Inspire:* Enroll others with compelling storytelling and effective communication

Curriculum & Schedule Overview

Curriculum is developed, implemented, and assessed by teachers, specialists, and directors, with the aid and support of school leadership. There are opportunities for explicit skill instruction (e.g. literacy and math groups in Lower School), and project-based learning throughout the schedule for TK-8.

Synapse's curriculum is also guided by both an annual theme and a change maker that embodies the annual theme. These themes were selected because they were identified as moments that change makers will encounter and opportunities to practice the skills of being a Change Maker (Change Maker Outcomes). Our curriculum -- at different grade levels, different subjects -- is built and revised through the lens of each theme each year. Tied to each theme is an annual change maker. Each change maker is selected with intention: that individual should represent the year's theme, be accessible to students TK-8, they have made positive change, and they embody our Change Maker Outcomes. The selection of our change maker involves the entire community because of the wide-ranging impact that the change maker will have during the school year.

Themes and Past Change Makers:

- Intersection -- Leonardo Da Vinci (2010-2011); Ruth Bader Ginsburg (2019-2020)
- Turning Point -- Thomas Edison (2011-2012); Desmond Tutu (2020-2021)
- The Power of One -- Rosalind Franklin (2012-2013); Judy Heumann (2021-2022)
- Crisis and Opportunity -- Rachel Carson (2013-2014); Thich Nhat Hanh (2022-2023)
- Iteration -- Mae Jemison and Neil deGrasse Tyson (2014-2015); Eugenie Clark (2023-2024)
- Counterpoint -- Benjamin Franklin (2015-2016); Sebastiao Salgado (2024-2025)
- Risk and Initiative -- Ieoh Ming Pei (2016-2017); LeVar Burton (2025-2026)
- Transformation -- Dolores Huerta (2017-2018)
- Noble Goal -- Fred Rogers (2018-2019)

In the Lower School, students have Lead and Associate homeroom teachers and classes with specialists, including Visual Arts & Design, Performing Arts, Self Science, and Garden Science. There are two TK classrooms, three Level 1 (Kindergarten) classrooms, four Level 2 (1st & 2nd grade) mixed-age classrooms, and three Level 3 (3rd & 4th grade) mixed-age classrooms. TK and Level 1 are single grades, and Levels 2 (first and second grade) and 3 (third and fourth grade) are mixed age classrooms. In the Lower School, we use Wilson's FUNdations, Reading Done Right, and The Writing Revolution for explicit literacy and writing instruction, and Bridges Mathematics, Mindset Mathematics, and IXL for explicit math instruction and skill development. Integrated, thematic HEARTS projects are developed collaboratively by classroom teachers and specialists.

In Middle School, the structure shifts to support students' growing independence, specialization, and diverse learning experiences. Discrete content classes provide focused, in-depth study within each discipline, supported by teachers with subject-area expertise. Students rotate through grade-specific and mixed-grade groupings, fostering flexibility, collaboration, and independence. The curriculum deepens foundational skills from Lower School, advancing analytical and persuasive writing through The Writing

Revolution and incorporating tools like Desmos in math for interactive problem-solving. Performing Arts expands into ensembles like bands, where older students refine instrumental skills in small group settings.

Middle School introduces new elements to enrich students' learning and growth. Expanded electives, language courses (Spanish and Mandarin), and Structured Work Time build executive function skills such as time management and goal setting. Community-Based Learning engages students in service projects, applying classroom learning in real-world contexts. Computational Thinking sharpens problem-solving and design skills, while Advisory provides consistent social-emotional support. Middle Schoolers also participate in Synapse athletics, competing in the SSIL league, and embark on expeditions as extensions of Nature Day, applying their knowledge in dynamic outdoor learning environments.

Sample Lower School Schedule

8:15am - 3:15pm M-Th; 8:15am - 2:30pm Fri

After Care Available M-F until 6pm

- Free Play; Morning Meeting
- Literacy and Math Explorations
- Snack & Recess
- Integrated, Thematic Projects (HEARTS)
- Lunch & Recess
- Specialist Activities (e.g. Performing Arts, Visual Arts, Self Science)
- Integrated, Thematic Projects (HEARTS)
- Afternoon Snack & Recess
- Innovation Studios + Community Assemblies on Friday afternoons

Sample Middle School School Schedule

8:15am - 3:15pm M-Th; 8:15am - 2:30pm Fri

After Care Available M-F until 6pm

- Advisory Check-In
- Block 1: Math
- Block 2: STEAM
- Morning Snack
- Block 3: Visual Arts & Design
- Block 4: Advisory
- Lunch
- Block 5: Spanish
- Block 6: Language Arts
- Afternoon Snack
- Block 7: Electives or PE

Transitional Kindergarten

Our Transitional Kindergarten (TK) program provides an early learning experience designed to foster social, emotional and academic growth. It focuses on developing basic social skills, motor abilities, and early literacy and numeracy. The program emphasizes thematic, project-based learning, where children engage in activities such as storytelling, art projects and simple games. These activities help children adjust to the school environment, develop foundational skills, and build a love for learning, preparing them for the structured learning experiences in Kindergarten.

The TK program is full-day, and TK students meet with specialists at least once throughout the week, including Visual Arts & Design, Performing Arts, Self Science, and Garden (project-dependent). TK students also take several field trips and community excursions throughout the year, including (but not limited to!) visits to local parks and playgrounds (e.g. Burgess Park), the Arizona Cactus Garden at Stanford, the Lytton Gardens Senior Center in Palo Alto, and a pumpkin patch in Half Moon Bay.

In the 2024-25 school year, we had two TK classes, both with approximately 16 students and a Lead and Associate teacher.

TK Themes

Connections to the annual Change Maker are made throughout the year, in each unit where applicable

- Getting to know you (Same but Different)
- Authors (Eric Carle, Tomi DePoala, Jan Brett)
- Colors (Red, Yellow, Blue, Orange, Green)
- Inventions (Gum, Sandwich, Airplanes, Slinky, Playdough)

Content Learning Objectives

Language & Literacy

- Storytelling through read alouds, journaling, and drawing
- Dramatic play
- Phonemic awareness and letter-sound correspondences
- Concepts of print
- Fine motor development (e.g. grip, scissors, etc.)
- Vocabulary development

Math

- Identify numbers 0-10 and understand their sequence (extend to 0-20 if ready)
- Count objects 0-10 using 1-1 correspondence
- Understand and compare quantities (more, less, same)
- Simple addition and subtraction using manipulatives and visual aids
- Recognize and name basic shapes (circle, square, triangle, rectangle)
- Understand daily routines and sequences of events
- Sort / group objects by attributes and recognize / create simple patterns
- Use simple graphs (bar graphs for favorite colors)

Level 1 = Kindergarten

Level 1 (Kindergarten) at Synapse School focuses on fostering a love for learning through cross-curricular project-based learning activities, and emphasizes social-emotional learning, critical thinking, and creativity. The curriculum integrates core subjects with activities that develop emotional intelligence, problem-solving skills, and introduces students to collaborative projects.

Level 1 is a single grade level, and offers more structured learning and foundational academic skills than Transitional Kindergarten. Level 1 students have daily math and literacy time for explicit instruction in reading, writing and math. Level 1 students have weekly specialist classes for Self Science, Visual Arts, Garden, Performing Arts (and Morning Sing), PE, and time in the Engineering & Design Center (EDC) and Garden, depending on specific project needs and planting/ harvesting cycles.

In Trimester 1, students focus on identity, earth science, Change Maker Outcomes, and number sense. They explore their own identity, give examples of the Change Maker Outcomes, and design experiments to study sunlight's effects on Earth's surface. They also build protective structures and track weather patterns. Math lessons develop number sense using tools like 5-Frames, 10-Frames, and Rekenreks. In Trimester 2, the focus shifts to community, life science, and measurement. Students create a fairy community, explore key community roles, and study habitats, including how plants and animals adapt to survive. In language arts, they write creatively about the fairy world, improve writing mechanics, and practice interviewing skills through fairy-world journalism. Math focuses on addition, subtraction, and measurement, applying these skills to community-building activities. Trimester 3 highlights equitable communities, physical science, place value, and geometry. Students learn about fairness, empathy, and advocacy, drawing inspiration from change makers to address inequities. In science, they design sustainable solutions for their community using simple machines like wheels and pulleys. Language arts focus on persuasive writing, teaching students to use evidence to support arguments. Math lessons explore place value, measurement, and 2D and 3D shapes and their applications in real-world structures.

Project themes and topics may change from year to year, depending on the school's annual theme, change maker, student / teacher interests, etc. Below you'll find a general overview of a Level 1 year, a sample overview of topics from each class / specialist, relevant curriculum resources, and a comprehensive list of content learning objectives for each subject.

Teachers share the annual overview of topics for that specific school year at Back to School Night in September.

Sample Annual Overview of Topics

	Trimester 1	Trimester 2	Trimester 3
Math	Attributes & Patterns; Making 5s and 10s	Addition and Subtraction Models; Measurement: Time and Money	Place Value, Measurement, 2D & 3D Shapes
Science	Earth Science: Weather	Life Science: Plants, Animals, and Ecosystems	Physical Science: Engineering and Design Project
Social Studies	Identity	Our Community	Equitable Communities
Language Arts	Multi-Genre Research Paper	Creative Writing	Persuasive Writing
Self Science	Emotional Literacy, Recognize Patterns, Navigate Emotions	Consequential Thinking, Intrinsic Motivation, Optimism	Increase Empathy, Noble Goals
Performing Arts	Music of Our Natural World: Weather and Seasons	Music and Movement of the Ocean and Water Cycle	Music and Movement from the American Experience
Visual Arts & Design	Expressing Emotion with Lines, Shapes, and Patterns	Observing and Recreating Texture	Experimenting with Color Theory
Garden	Harvesting: Tomatoes; Botanical Principles	Planting Winter Garden; Stewardship, Garden Organisms	Harvesting: Peas, Carrots, Lettuce
PE	Sportskidship, Jumping, and Running	Throwing & Catching, Frisbee, Badminton, Volleyball	Soccer, Basketball, Dance, Hockey

Content Learning Objectives

Language & Literacy

- Develop phonemic awareness by identifying rhymes and manipulating sounds.
- Recognize and name upper and lowercase letters.
- Understand basic print concepts and directionality.
- Fluently produce consonant and short vowel sounds; spell simple CVC and digraph words.
- Expand sentences orally and apply proper punctuation.
- Read and spell Kindergarten-level trick words.

Math

- Math Practices (TK-8)
 - Habits: Keep trying when problems are tricky and pay attention to the details.
 - Reasoning: Show thinking with numbers and explain ideas about math.
 - Approach: Use math to solve real-world problems and choose the right tools to help.
 - Generalizing: Notice patterns and understand how math works in different situations.
- Build understanding of numbers, addition, and subtraction.
- Explore place value with numbers 11-19.
- Measure and compare attributes; classify and count objects.

- Identify, analyze, and compose shapes.

Social Studies

- Explore identity within family, community, and society while respecting diverse groups.
- Develop empathy and recognize fairness and unfairness in society.
- Advocate for self and others to promote equity in communities.

Science

- Ask questions, make observations, and plan investigations.
- Use models to represent relationships and patterns.
- Analyze and interpret data; use graphs to compare solutions.
- Construct evidence-based explanations and solutions.
- Communicate findings through text, images, and diagrams.

Self Science

- Introduce eight Six Seconds' competencies.
 - Emotional Literacy: Demonstrate ways to express feelings with others
 - Recognize Patterns: Identify the connection between feelings and actions
 - Consequential Thinking: Recognize choices in thoughts, feelings, and actions
 - Navigate Emotions: Know how to take a pause to regulate emotions
 - Exercise Optimism: Describe ways to be hopeful
 - Intrinsic Motivation: Identify an interest to grow
 - Increase Empathy: Listen to others' feelings and respond appropriately to show care
 - Noble Goals: Begin to develop a positive long-term purpose
- Recognize and regulate emotions, identify patterns, and make thoughtful choices.
- Practice empathy and optimism while setting long-term goals.
- Develop motivation and show care through listening and actions.

Performing Arts

- Sing in tune and play simple rhythms using instruments or body percussion.
- Compose rhythmic phrases and follow folk dance choreography.
- Explore music's qualities through creative movement and express character through drama.

Visual Arts

- Demonstrate control of art materials and create unique work.
- Solve problems within project parameters and embrace feedback.
- Take risks and express creativity in a supportive environment.

Garden

- Identify plant parts and their needs, and understand the food chain.
- Plant, care for, and harvest seeds while exploring fresh produce.
- Become comfortable touching, smelling, tasting various fresh fruits and vegetables.

PE

- Develop motor skills through running, jumping, and throwing.
- Explore foundational skills in basketball, soccer, and dance using team-oriented games.

Level 2 = 1st & 2nd Grade

Mixed-Age Classes

Level 2 builds on the foundational skills developed in Level 1, emphasizing further growth in academic, social, and emotional areas through hands-on, project-based learning, encouraging students to connect different subject areas and see the relevance of their studies in the world.

Given that students are in Level 2 for two years, the HEARTS curriculum is designed to alternate between studying Mesoamerican civilizations and California history each year. This approach allows students to gain an understanding of both ancient cultures and local heritage. The curriculum integrates history, science, language arts, and mathematics, fostering critical thinking, creativity, and a deep appreciation for diverse cultures and the natural world. Beyond academics, the curriculum also focuses on developing social-emotional skills, preparing students to be thoughtful, informed, and compassionate individuals.

Level 2 students continue to have daily math and literacy time for explicit instruction and assessment in reading, writing and math. Level 2 students also continue to work with specialists, who integrate their content into the alternating studies of Mesoamerica and California history. Level 2 students have scheduled time for Self Science, Visual Arts, Garden, Performing Arts (and Morning Sing), PE, and are often collaborating with the Engineering & Design Center (EDC).

Project themes and topics may change from year to year, depending on the school's annual theme, change maker, student / teacher interests, etc. Below you'll find a sample overview of topics from each class / specialist and a comprehensive list of content learning objectives for each grade level. Though the themes and projects may change each year, our learning objectives are steady for each grade level, allowing teachers to evaluate and monitor each student's progress. *Teachers share the annual overview of topics for that specific school year at Back to School Night in September.*

Overview of the Mesoamerican Year

In the Mesoamerican year, students dive into the history and science of ancient civilizations like the Olmec, Maya, and Inca. They begin by exploring how the environment shaped the Olmec civilization, expressing their insights through poetry and often study plant science or physical science, like properties of matter. Math lessons emphasize number sense, grouping, and place value. In Trimester 2, the focus shifts to the Maya civilization, where students research Maya achievements, compare cultures through informative writing, and study science topics like the human senses, or maybe even space, connecting astronomy to Mesoamerican beliefs. Math involves applying operations, measurements, and geometry to construct Maya structures, often to scale. In the final trimester, students explore the Inca civilization, writing historical fiction and studying Mesoamerican biology, including Maya ecology and rainforest animals. Math activities include understanding geometric regions, reading clocks, and learning multiplication strategies, enhancing their grasp of the environment and ancient cultures.

Sample Annual Overview of Topics, from a Mesoamerican year:

	Trimester 1	Trimester 2	Trimester 3
Math	Number Sense (up to 1000), Addition, Subtraction, Counting & Comparing	Measurement, Geometry, Grouping	Time & Duration, Multiplication
Science	Properties of Matter	Space	Ecosystems
Social Studies	Olmec Culture	Maya Culture	Inca Culture
Language Arts	Poetry	Persuasive Writing	Informative Writing
Self Science	Emotional Literacy, Recognize Patterns, Navigate Emotions	Consequential Thinking, Increase Empathy, Optimism	Intrinsic Motivation, Noble Goals
Performing Arts	Internalizing Rhythm and Pitch Taking Solo Turns	Counterpoint, Xylos, Composition, Instrument Building	Music and Movement Games from Around the World
Visual Arts & Design	Symbolism in 3D sculpture inspired by Olmec culture	Storytelling influenced by Maya culture	Exploration of textiles, both past and present, through the lens of Inca culture
Garden Science	Harvesting, Eating, and Preserving Mesoamerican Staples Corn and Tomato	Corn Tortillas From Seed to Plate	Science Experiment: Testing a Variety of Variables of Plant Growth
PE	Sportskidship, Throwing, Catching, and Running	Jumping, Frisbee, Badminton, Volleyball	Soccer, Basketball, Hockey

Overview of the California History Year

In the California history year, students explore the state's cultural and geographical history, beginning with the Ohlone people and examining how geography shaped their lifestyle, while writing poems that juxtapose their own personal experiences with those of the Ohlone. Math lessons cover number sense, patterns, place value, and measurement, while science emphasizes the Ohlone's sustainable relationships with nature through native plants and animals. In Trimester 2, students study the evolution of the Bay Area specifically by exploring the history of cities like San Francisco, Monterey, and Sacramento, creating newspapers to share city stories and advocate for causes. Math activities include geometry, data analysis, and measurement to help students understand their surroundings and create scaled models, and science lessons focused on marine ecosystems to promote environmental stewardship. In the final trimester, students connect personal histories to broader migration patterns through autobiographical writing, analyze human migration in math, and investigate light properties, environmental pollution, and sustainability in science.

Sample Annual Overview of Topics, from a California History year:

	Trimester 1	Trimester 2	Trimester 3
Social Studies	Bay Area History Pre 1700s: Ohlone Pre Colonization Identity, Diversity	Bay Area History 1700s-1800s: Period of Great Change - Colonizing Influences Diversity, Justice	Bay Area History 1900s and Today Modern Day Immigration Justice, Action
Science	Life Science: Plants and Animals	Earth Science: Water Systems and Ecosystems	Physical Science: Light and Sound, Environmental Pollution and Sustainability
Language Arts	Poetry	Informative / Persuasive writing	Fiction writing
Math	Visual Number Sense, Grouping, Number Flexibility, Place Value	Equality, The Number Line, Measurement, Estimating	Time & Duration, Multiplication, Data
Self Science	Emotional Literacy, Recognize Patterns, Navigate Emotions	Intrinsic Motivation, Consequential Thinking, Optimism	Empathy, Noble Goals
Visual Arts & Design	Sculpture in 2D & 3D based on Identity	Balance and Pattern Storytelling	Exploration of lifestyle and culture through utilitarian artifacts
Performing Arts	Self-Expression Through Movement and Song	Telling Stories of the Sea Through Movement and Drama	Songs, Dances, and Games of Californian Communities
Garden	Pickling for preservation, Planting pollinator garden, Ohlone potatoes	Thresh, winnow, grind wheat, Make bread, Flower, fruit, seed anatomy, Scientific drawing	Seed traveling, Seed balls, Cooking and eating winter crops
PE	Sportskidship, Running, Jumping	Throwing & Catching, Frisbee, Badminton, Volleyball	Soccer, Basketball, Dance, Hockey

Content Learning Objectives

Language & Literacy, Grade 1

- All Kindergarten skills, plus:
- Develop phonics skills to segment, blend, and write words; read and spell words with common suffixes.
- Read and spell grade-appropriate trick words accurately and fluently.
- Demonstrate text comprehension and identify sentences and fragments.
- Combine short declarative sentences orally.

Language & Literacy, Grade 2

- All grade 1 skills, plus:
- Read and spell phonetically regular words, including long/short vowels, vowel teams, and prefixes/suffixes.
- Identify and produce four sentence types with proper punctuation and capitalization.
- Expand sentences using subordinating conjunctions and rewrite fragments into complete sentences.

Math, Grade 1:

- Solve addition and subtraction problems within 20 using equations and word problems.
- Understand place value and apply it to add and subtract.
- Measure lengths, interpret data, and tell and write time.
- Explore shapes and their attributes.

Math, Grade 2:

- Add, subtract, and begin working with equal groups to build multiplication foundations.
- Measure and estimate lengths; work with time and money.
- Analyze shapes and their attributes in geometry.
- Represent and interpret data through graphs.

Social Studies, Grades 1 and 2

- Explore identity by recognizing similarities and differences between people and groups.
- Discuss fairness and unfairness through historical events and real-life examples.
- Advocate for equity by taking action to promote fairness.
- Locate places on a map and connect present-day cultural evidence to historical significance.

Science & Engineering Practices, Grades 1 and 2

- Ask questions, make observations, and design solutions to problems.
- Plan investigations, make predictions, and collect data.
- Use graphs and math to analyze patterns and compare solutions.
- Construct evidence-based explanations and communicate findings through text, images, and diagrams.

Garden, Grades 1 and 2

- Recognize plant life cycles and the roles of pollinators and soil in ecosystems.
- Safely use hand tools and understand harvesting and planting techniques.
- Explore traditional food processes and taste new foods while learning about nutrition.

Self Science, Grades 1 and 2

- Emotional Literacy: Express emotions using body and voice, and identify emotions in others.
- Recognize Patterns: Recognize the connection between feelings, actions, and patterns.
- Consequential Thinking: Identify choices in thoughts, feelings, and actions in social situations; identify their pros and cons
- Navigate Emotions: Know how to take a pause and identify tools to manage emotions
- Exercise Optimism: Identify examples of hopefulness in thought, feelings and actions
- Intrinsic Motivation: Identify an interest to grow
- Increase Empathy: Listen to others' feelings and respond to show understanding
- Noble Goals: Begin to set long-term, meaningful goals.

Performing Arts, Grades 1 and 2

- Match pitch and play simple rhythms using instruments or body percussion.
- Use movement to express musical qualities, character, and mood.
- Compose short rhythmic phrases and read basic notation.
- Take turns in group singing and participate in ensemble activities.

Visual Arts & Design, Grades 1 and 2

- Use fine motor skills to control art materials like pencils, brushes, and scissors.
- Observe and apply line, shape, and texture in artwork.
- Create unique work that tells a story and reflects a growth mindset.
- Work through challenges and embrace art-making as a form of self-expression.

PE, Grades 1 and 2

- Practice fundamental physical skills: running, jumping, throwing, catching, and swinging.
- Develop strength, agility, balance, and flexibility to promote a healthy body.
- Learn and apply sportsmanship, teamwork, and perseverance.
- Build communication, creativity, and collaboration skills.

Level 3 = 3rd & 4th Grade

Mixed-Age Classes

In Level 3, students make important strides in their academic and social development. Embedded in projects and hands-on experiences, students improve their reading skills with more complex texts, enhance their writing by creating structured paragraphs and longer writing samples, and deepen their understanding of multiplication, division, and fractions in math. Socially, they learn to work better in groups, develop empathy, and improve their conflict resolution skills, fostering greater independence and responsibility.

Given that students are in Level 3 for two years, the HEARTS curriculum is designed to alternate between studying Ancient Egypt and US History each year. Like Level 2, this approach allows students to gain an understanding of both ancient cultures and local heritage. The curriculum integrates history, science, language arts, and mathematics, fostering critical thinking, creativity, and a deep appreciation for diverse cultures and the natural world.

Level 3 students continue to work with specialists, who integrate their content into the alternating studies of Egyptian and US history. Level 3 students have time for Self Science, Visual Arts, Garden, Performing Arts, PE, and time in the Engineering & Design Center (EDC). Level 3 students also continue to have daily math and literacy time for explicit instruction and assessment in reading, writing, and math.

Project themes and topics may change from year to year, depending on the school's annual theme, change maker, student / teacher interests, etc. Below you'll find a general overview of the Ancient Egypt and US history curriculum, a sample overview of topics from each class / specialist, and a comprehensive list of content learning objectives for each grade level. Though the themes and projects may change each year, our learning objectives are steady for each grade level, allowing teachers to evaluate and monitor each student's progress.

Teachers share the annual overview of topics for that specific school year at Back to School Night in September.

Overview of the Ancient Egypt Year

In this year, Level 3 students will delve into Ancient Egyptian mythology and daily life, examining how geography and beliefs, particularly in the afterlife and mummification, shaped their society and the significance of tombs. They will explore Egypt's geography, the Nile River's role, and essential resources, developing models to describe ecosystems and applying this knowledge to conservation issues. Through creative writing, students will craft original myths, write opinion pieces on pyramid construction theories, and hone their argumentation skills. In math, students will interpret and present data through charts and graphs, explore geometric principles in pyramid construction, build simple machines, and study waste management using multiplication, division, and data analysis.

Sample Annual Overview of Topics, from an Ancient Egypt Year:

	Trimester 1	Trimester 2	Trimester 3
Math	Comparative Number Systems and Systems of Measurement	Pyramids, Fractions, and the Nile	Algebraic Thinking and Data Representation
Science	Earth Science	Physics and Simple Machines	Ecosystems
Social Studies	Ancient Egyptian Mythology, Social Structure, and Daily Life	Ancient Egyptian Beliefs: Pharaohs, Mummification, Tombs	Retelling the Story of Egypt
Language Arts	Creative Writing: Elements of a Myth	Expository Writing: How were the Pyramids built?	Script Writing
Self Science	Emotional Literacy, Recognizing Patterns, Navigating Emotions	Consequential Thinking, Exercise Optimism, Increase Empathy	Intrinsic Motivation, Noble Goals
Performing Arts	Storytelling with Music and Movement Pentatonic Scale and Improvisation	Composition and Choreography Inspired by Ancient Egyptian Art	Setting Poetry to Music Notation
Visual Arts & Design	Exploration of Symbolism through Ancient Egyptian Art	Ancient Egyptian art and craftsmanship	Landscape sketching with perspective
Garden Science	Ancient Egyptians and the Importance of Agriculture, Hybrid Plant Species	Papyrus: Its Many Uses and Making Papyrus Paper	Plant Propagation, Photosynthesis, and Energy Budgets
PE	Sportskidship, Running, Jumping	Throwing & Catching, Frisbee, Badminton	Volleyball, Soccer, Basketball

Overview of the US History Year

In this year, Level 3 students explore Indigenous and colonial American cultures, environmental sustainability, and community building. Students will engage with Indigenous voices and cultural diversity, study environmental sustainability through natural resources, and analyze historical encounters between European and Indigenous American cultures. They will develop narrative and persuasive writing skills, enhance reading comprehension, and apply mathematical concepts such as place value, number theory, measurement, and data analysis to practical projects like the Traveling Salesman problem and Boat Building Project. Throughout, students will integrate their learning by building inclusive communities and examining the impact of human activities on natural systems.

Sample Annual Overview of Topics, from a US History year:

	Trimester 1	Trimester 2	Trimester 3
Social Studies	Indigenous North America	The Colonization of America	American Revolution & Town
Science	Environment & Sustainability	Nautical Science	Oceanography
Language Arts	Oral Storytelling & Short Stories	Poetry & Reader's Responses	Research Writing, Persuasion, & Letter Writing
Math	Place Value, Measurement and Data, Addition, Subtraction	Measurement and Data, Multiplication and Division	Fractions & Geometry
Choir & Performing Arts	Using Movement, Singing, and Instruments to Create a Rich Storytelling Experience	Exploring and Creating Music of the Ocean Including Sea Shanties, Improvisation, and Composition	Folk Dances of Early America
Visual Arts & Design	Clay Modeling with Focus on Symbolism and Storytelling	Still Life Drawing with an Emphasis on Color and Composition	Printmaking Techniques
Self Science	Emotional Literacy, Recognize Patterns, Navigate Emotions	Intrinsic Motivation, Optimism, Consequential Thinking	Empathy, Noble Goals
Garden	Three Sisters agriculture, Natural dyeing with blackberry leaves and vine, Compost science	Organic gardening principles, Colonial tea and medicinal herbs, Fermentation	Vermicompost and personal worm bins, NPK soil testing, Cooking and eating winter crops
PE	Sportskidship, Running, Jumping	Throwing & Catching, Frisbee, Badminton, Volleyball	Soccer, Basketball, Dance, Hockey

Content Learning Objectives

Language & Literacy, Grade 3

- Identify and analyze syllable types and word structures; read and spell grade-level text fluently with short and long vowels.
- Apply active reading strategies to demonstrate comprehension through discussion and written responses.
- Write structured single-paragraph outlines with topic sentences, supporting details, transitions, and conclusions.
- Combine and expand sentences using subordinating conjunctions; identify and correct fragments, run-ons, and punctuation errors.
- Understand and use figurative language, such as similes and metaphors, in writing and context.

Language & Literacy, Grade 4

- *All grade 3 skills, plus:*
- Apply spelling rules for adding suffixes to base words and use root words to infer meanings of related words.
- Read and spell phonetically regular words and words with complex vowel patterns, prefixes, and suffixes.
- Write expanded sentences and begin embedding persuasive arguments at the sentence level.
- Demonstrate fluency in reading grade-level texts accurately and automatically, including prose and poetry.

Math, Grade 3

- *Math Practices TK-8, plus:*
- Solve problems involving multiplication, division, and fractions; identify and explain patterns in arithmetic.
- Use place value understanding to perform multi-digit arithmetic and represent numbers in multiple ways.
- Measure and interpret data, including area, perimeter, and volume; recognize shapes by their attributes.
- Develop understanding of fractions as numbers and relate them to concepts of area and addition.

Math, Grade 4

- *Math Practices TK-8, plus:*
- Solve problems using the four operations; identify factors, multiples, and patterns in arithmetic.
- Extend understanding of place value to multi-digit numbers and perform multi-digit arithmetic using visual models.
- Build fractions from unit fractions and compare decimal fractions.
- Measure and interpret angles, lengths, and data; solve problems involving time, money, and conversions.
- Classify shapes by properties and solve problems using perimeter, area, and volume.

Social Studies, Grades 3 and 4

- Examine Indigenous cultures, sustainability practices, and the impacts of colonization through multiple perspectives.
- Build inclusive communities by learning strategies from historical and cultural contexts.
- Develop mapping skills to understand geography and its influence on people and environments.

Science & Engineering Practices, Grades 3 and 4 (TK-8)

- Ask questions, plan and conduct investigations, and collect and analyze data to draw conclusions.
- Develop and use models to explain relationships, patterns, and systems in the natural world.
- Construct explanations supported by evidence and engage in scientific argumentation.

Garden, Grades 3 and 4

- Understand plant life cycles, soil health, and ecological contributions of pollinators and composting.
- Participate in planting, harvesting, and testing soil; safely use tools like pruners.
- Expand food vocabulary, taste new foods, and practice simple recipes, such as pickling.

Self Science, Grades 3 and 4

- Emotional Literacy: Demonstrate ways to use body and voice to express emotions in appropriate ways; validate how others feel
- Recognize Patterns: Identify positive patterns in feelings, thoughts and actions; describe what triggered challenging reactions
- Consequential Thinking: Describe choices in thoughts, feelings and actions in social situations; describe their pros and cons
- Navigate Emotions: Identify several tools for managing emotions even in challenging situations
- Exercise Optimism: Describe examples of hopefulness in thought, feelings and actions
- Intrinsic Motivation: Describe ways to be motivated by enjoying what I am doing
- Increase Empathy: Listen to others' perspectives and respond in ways to create caring relationships
- Noble Goals: Describe a positive long-term purpose for self and the larger community; describe ways to put purpose into action

Performing Arts, Grades 3 and 4

- Sing in multiple parts, including rounds and ostinati; match pitch accurately in solo and group settings.
- Play percussion instruments and xylophones, improvise and compose rhythmic and melodic phrases.
- Express character and mood through creative movement and drama; follow folk dance choreography.
- Collaborate in ensembles, responding to cues from conductors and peers.

Visual Arts & Design, Grades 3 and 4

- Apply techniques in drawing, painting, and sculpture to create thoughtful compositions.
- Use design elements and symbolism to tell stories and communicate ideas.
- Embrace feedback and show perseverance in completing art projects.
- Take creative risks and use art as a means of self-expression.

PE, Grades 3 and 4

- Practice fundamental physical skills: running, jumping, throwing, catching, and swinging.
- Develop strength, agility, balance, and flexibility to promote a healthy body.
- Learn and apply sportsmanship, teamwork, and perseverance.
- Build communication, creativity, and collaboration skills.

5th and 6th Grade: Welcome to Middle School!

Building relationships is essential in Middle School, and the variety of teachers and advisors ensures that each student finds trusted connections and support. Middle School norms—Be safe, be present, be kind—guide students in creating a positive, supportive community as they navigate this new phase. Advisory sessions are grade-specific, allowing students to set meaningful goals based on the Change Maker Outcomes (CMOs). The year kicks off with an overnight for grades 5-8 together, and for longer spring expeditions, 5th graders head to the Channel Islands National Park, and 6th graders head to Joshua Tree National Park.

In 5th grade, students at Synapse transition into Middle School by rotating between separate content classes. This structure promotes autonomy and responsibility, as students manage their assignments, materials, and schedules across different subjects. Adapting to having a unique teacher for each class helps them develop organizational skills and adaptability while benefiting from specialized teaching in each domain for greater content depth.

As part of the 5th-grade curriculum, Self Science shifts to EQ Essentials, and students join small group advisories where they explore identity, self-management, and interpersonal communication. They also begin Language classes in Spanish or Mandarin, and a class for Computational Thinking. For one trimester, they are introduced to core Middle School programs through introductory classes in the Brainwave Learning Center (BLC), the Engineering & Design Center (EDC), and overnight expeditions. These courses, held during elective periods, provide foundational experiences in key elements of Middle School. Through these programs, 5th graders begin to see themselves as part of the larger Middle School community, developing the skills needed for increased independence.

By 6th grade, students build on their 5th-grade foundation and further develop in the CMOs, kindness, and self-expression, while continuing to feel supported. With a year of Middle School experience, 6th graders often take on informal leadership roles, particularly in mixed-grade settings like EFGH classes and community-based projects. They serve as role models for 5th graders, helping to set a positive example and participating in peer-led projects, which fosters confidence and a sense of responsibility. While not formally part of the curriculum, this mentorship naturally develops, reflecting the supportive and collaborative culture at Synapse.

Similar to the Lower school, project themes and topics may change from year to year, depending on the school's annual theme, change maker, student / teacher interests, etc. Below you'll find a sample overview of topics from each class / specialist and a comprehensive list of content learning objectives for each grade level. *Teachers share the annual overview of topics for that specific school year at Back to School Night in September.*

Sample Annual Overview of 5th and 6th Grade Topics:

	TRIMESTER ONE	TRIMESTER TWO	TRIMESTER THREE
Computational Thinking	“How to Internet” - Practicing computing skills in G Suite to become more effective digital citizens	Creating and analyzing vector graphics, Cartesian Planes, and art using DIY electronics and CNC machines	Using Computational Thinking competencies to design and build an immersive interactive school tour resource for new families
Community Based Learning	Synapse Community Work: Communication, Research, Planning, and Action	Advocacy Through Teaching & Sharing	Greater Community Partnerships: Communication, Research, Planning, and Action
EQ Essentials	Know Yourself: Building self-awareness skills and creating an assets inventory	Choose Yourself: Self-care vs. self-soothing	Give Yourself: Attributes of an ally
Language Arts	Narrative Reading and Writing	Expository Reading and Writing	Poetry and Other Creative Reading and Writing
Mandarin	Classroom and Shopping	Art and Photography	Music and Dance
Math 5	Area of Compound Shapes, Units of Measurement, Proportional Relationships, Scaling, Fraction Operations, Equivalent Fractions, Greatest Common Factor, Least Common Multiple	Graphing on the Cartesian Plane, Data and Graphs, Powers of Ten, Exponents, Fraction Operations, Percentage, Decimal, and Fraction Conversion, Measures of Central Tendency	Introduction to Algebra and Algebraic Expressions, One-Variable Equations, Combining Like Terms, The Number System and Operations
Math 6	Ratios, Unit Rate, Percentage, Decimal, and Fraction Conversion, Theoretical and Experimental Probability, Lines and Angles	Graphing on the Cartesian Plane, Units of Measurement, Geometry, Volume, Surface Area, Proportions and Scaling, Measures of Central Tendency	Financial Literacy, Positive and Negative Integers, Absolute Value, Algebraic Expressions, Solving Equations, The Distributive Property, Two-Variable Equations
Physical Education	Cross Country, Girls Volleyball PE Units: Sportsmanship, Running, Jumping	Boys Basketball, Girls Soccer, Boys Soccer, Girls Basketball PE Units: Throwing & Catching, Frisbee, Badminton	Track & Field, Boys Volleyball PE Units: Basketball, Soccer, Volleyball
Performing Arts	Zimbabwe Marimba Music Ensemble Skills	Improvisation Call and Response	Latin Music and Digital Composition

Social Studies	World Geography	Migration	Golden Ages in Different Times and Places
Spanish	Classroom and Shopping	Art and Photography	Music and Dance
STEAM 5	Earth Science: A Journey Along the Geologic Time Scale	Biomes and Symbiotic Relationships	Energy Flow: Exploring Food Webs and Trophic Levels
STEAM 6	Phenology: Tracking seasonal changes in a changing world	Biomes and Symbiotic Relationships	Chemistry: Exploring Atomic Structure, Chemical Changes and pH
Visual Arts & Design	Evolving Portraiture: Exploring culture and identity in Self Portraits through time	Linear Perspective & Defining Landscape	3D Concepts: Sculptural Design and Creation

Sample Content Learning Objectives (project-dependent)

Language & Literacy, Grades 5 and 6

- Analyze narrative elements like character, setting, genre, plot, and theme.
- Practice active reading through annotation, discussion, and analysis of fiction and non-fiction texts.
- Write responses to prompts, edit for sentence accuracy and complexity using the Hochman Method, and paraphrase sources.
- Compose narrative and expedition-inspired poetry.

Math, Grades 5 and 6

- Calculate compound shapes and scale to create human wing models.
- Engage in a simulated “alien life” game to explore income inequality.
- Practice operations with fractions and convert improper fractions to mixed numbers.
- Study game strategy, create resource maps, and explore probability with dice and custom spinners.
- Plot points on the Cartesian plane and create coordinate-based art.
- Analyze data using central tendency, explore scientific notation, and complete a Fermi Estimation Project.
- Design a building project with profit calculations, using Google Sheets to organize data and formulas.

Social Studies, Grades 5 and 6

- Study different map types, map-reading, and changes over time.

- Research U.S. history through the lens of advocacy, equity, and contributions of Asian-American figures like Eugenie Clark.
- Create projects on identity, diversity, and advocacy, practicing collaboration, research, and presentation skills.

STEAM, Grades 5 and 6

- Use the CER (Claim, Evidence, Reasoning) framework for scientific inquiry.
- Study the geologic time scale, fossil types, and ecosystems through data collection and owl pellet dissection.
- Build observation skills through nature journaling, identify seasonal changes, and explore local geology.
- Design biomimicry-based solutions and participate in a project blending design thinking with environmental science.

EQ Essentials, Grades 5 and 6

- Build a personal strengths toolkit to support self-awareness and emotional growth.
- Identify behavior patterns and analyze emotions using tools like the Plutchik Model and Maslow's Hierarchy.
- Practice strategies to reframe negative thoughts and create goals for an inclusive community.

Community-Based Learning, Grades 5 and 6

- Develop and pitch projects to welcome new students and raise awareness on issues like food insecurity.
- Implement a food donation drive and design educational lessons for younger students.

Computational Thinking, Grades 5 and 6

- Develop skills in research, documentation, and presentation.
- Apply computational thinking principles: abstraction, decomposition, pattern recognition, testing/debugging, algorithm design, data analysis, automation, and modeling.

Language, Grades 5 and 6

- Mandarin: Learn vocabulary for clothing, animals, and sports, write scripts, and study cultural differences.
- Spanish: Practice vocabulary related to clothing, animals, and sports, explore cultural differences, and write descriptive scripts and catalogs.

PE, Grades 5 and 6

- Develop skills in Cross Country, Volleyball, Basketball, and Soccer.
- Practice foundational mechanics, team-building, sportsmanship, and conditioning.
- Participate in SSIL competitions and learn throwing, catching, and strategic skills.

Performing Arts, Grades 5 and 6

- Study African marimba music, Blues, and Jazz, focusing on rhythm, harmony, and melody.
- Compose music using Hookpad software and practice performance and rehearsal etiquette.

Visual Arts & Design, Grades 5 and 6

- Explore composition, unity, proportion, and perspective.
- Study printmaking, sculpture, and clay work, and create imaginative and balanced art forms.
- Develop designs for social issues, using art to communicate ideas effectively.

7th and 8th Grade

In seventh and eighth grades, Synapse students embrace leadership opportunities that align with their developmental growth, stepping into roles as mentors, collaborators, and change makers. At this stage, students are becoming more self-aware, seeking independence, and developing abstract and critical thinking skills. Synapse nurtures these milestones with opportunities like leading electives, applying to be Research Assistants in the Brainwave Learning Center, and tackling complex projects that require planning, teamwork, and perseverance.

Exciting projects and expeditions round out the seventh and eighth grade experience, blending academic challenges with real-world applications. Students take part in interdisciplinary projects that challenge their creativity and problem-solving skills, such as designing universally accessible structures, creating models of ocean waves and bathymetry, or facilitating an election. In Community-Based Learning (CBL), eighth graders regularly engage in service projects with organizations like LifeMoves, developing empathy and a commitment to community impact. In Performing Arts, seventh and eighth graders participate in small ensembles, such as rock and jazz bands, partnering with the Riekes Center and performing arts specialists to hone their instrumental and ensemble skills.

Like fifth and sixth graders, end-of-year expeditions allow students to apply their learning beyond the classroom. Seventh graders go backpacking in Utah, immersing themselves in outdoor learning, leadership, and teamwork, while eighth graders camp on a glacier in Kenai Fjords National Park, Alaska, where they explore the impact of climate and geography firsthand. These experiences provide students with opportunities to deepen their understanding of the natural world, practice collaboration, and reflect on their personal growth.

A highlight of eighth grade is the Exit Ticket Presentations, a culmination of their Synapse journey celebrating their growth and accomplishments. These presentations allow students to reflect on their identity, share personal and academic growth, and articulate their vision for the future. Family, friends, faculty, and peers gather to honor each graduate, sharing words of appreciation, gratitude, and reflection. This event encapsulates Synapse's Change Maker Outcomes as a Portrait of a Graduate, celebrating students' achievements while preparing them for the transition to high school with confidence and agency.

Sample Annual Overview of Topics:

	TRIMESTER ONE	TRIMESTER TWO	TRIMESTER THREE
Computational Thinking	Cryptography and Prime Numbers	Coding math in Desmos; Digital vs Analog – Light, Sound, and Text	Data Science with Math 8
Community Based Learning	Environmental Challenges; Reasons for Optimism; Climate of Emotions	Origins of Economic Inequality Social Mobility	Affordability, Housing & Homelessness
EQ Seminar	Know Yourself: Building self-awareness skills and creating an assets inventory	Choose Yourself: Self-care vs. self-soothing	Give Yourself: Attributes of an ally
Language Arts 7	Narrative Structure Literary Devices in Short Stories Narrative/Memoir Writing	<i>They Called Us Enemy</i> by George Takei <i>Seen and Unseen</i> by Elizabeth Partridge Informative/Persuasive Writing	Poetry & Poetic Devices <i>Rebound</i> by Kwame Alexander <i>Other Words for Home</i> by Jasmine Warga Literary Response/Creative Writing
Language Arts 8	Narrative Structure Literary Devices in Short Stories Narrative/Memoir Writing	<i>Long Way Down</i> by Jason Reynolds Social Justice Informative/Persuasive Writing	Poetry & Poetic Devices <i>Romeo & Juliet</i> by Shakespeare Kendrick Lamar Writing Study Literary Response/Creative Writing
Math 7	Pre-Algebra Functions Linear Functions	Linear Functions continued Pythagorean Theorem & Irrational Numbers Geometric Transformations	Exponents & Scientific Notation Linear Inequalities
Math 8	New Forms of Linear Functions Systems of Linear Equations	Quadratic Functions & The Quadratic Formula Exponential Functions	Data Science Data Analysis Statistics Geometry
Physical Education	Cross Country, Girls Volleyball PE Units: Sportsmanship, Running, Jumping	Boys Basketball, Girls Soccer, Boys Soccer, Girls Basketball PE Units: Throwing & Catching, Frisbee, Badminton	Track & Field, Boys Volleyball PE Units: Basketball, Soccer, Volleyball

Performing Arts	Exploration of Genre and Instrument of Choice, Song Choice, Music preparation and performance	Stretch Goals for Spring Expansion of Repertoire Ensemble Skills Performance	Instrumental/Vocal Technique Rehearsal and Communication Strategies Music Preparation and Performance
Social Studies 7	“Big History”, World Religion	Medieval and Early Modern World History	Empire and Rebellion through History
Social Studies 8	The US Constitution, Three Branches of Government	US History	Electoral Systems and Current Events
Spanish & Mandarin	Clothes and shopping	Art and photography	Music and dance
STEAM	Ocean Wave Mechanics and Bathymetry	Cell Biology and COVID	Genetics, Heredity, and Biodiversity
Visual Arts & Design	Neuroaesthetics: Art Through the Lens of the Brain	Global Visions: Art at the Intersection of Technology and Culture	Art for Change: Creative Responses to Social Issues

Sample Content Learning Objectives (project-dependent)

Language & Literacy, Grades 7 and 8

- Write narratives using the narrative arc and creative writing techniques.
- Compose thesis essays individually and collaboratively.
- Strengthen grammar and mechanics, including MLA formatting.
- Read and analyze poems, short stories, and assigned texts.
- Research and advocate for environmental and social issues.

Math, Grades 7 and 8

- Practice algebraic manipulation and solve systems of equations through real-world scenarios.
- Explore and graph linear, quadratic, and exponential functions; solve inequalities.

- Investigate compound and simple interest, using exponential functions to model growth patterns.
- Apply the Pythagorean Theorem and geometric transformations in designing inclusive structures.
- Visualize and interpret data through sampling, storytelling, and mathematical art with Desmos.

Social Studies, Grades 7 and 8

- Analyze the history of colonialism and its impact on specific regions and changemakers for liberation.
- Simulate American democracy through elections, legislative role-play, and creating a class constitution.
- Investigate Supreme Court cases, historical empires, and world religions, presenting findings through writing, performance, and model-building.
- Critically examine data, art, and artifacts to infer societal practices and evaluate messages.
- Research U.S. states, demographics, and histories, and engage in collaborative congressional simulations.

STEAM, Grades 7 and 8

- Investigate climate change impacts on California ecosystems and communities using research questions and data interpretation.
- Conduct experiments, document findings, and develop evidence-based conclusions.
- Apply universal design principles to create inclusive, full-scale obstacle designs through collaboration and empathy-building.
- Explore the physics and neurobiology of movement and waves, creating models and scaled digital representations.
- Integrate math and computational thinking concepts in design and problem-solving projects.

EQ Seminar, Grades 7 and 8

- Practice emotional regulation by identifying thought patterns
- Understand the relationship between emotions and motivation
- Develop and share affirmations through creative projects, such as gyotaku-inspired art.
- Identify strengths and build a personal "asset toolbox" to support self-awareness and growth.
- Explore the EQ Competencies through activities of play and self-expression, integrating them into personal storytelling.
- Reflect on educational experiences to identify growth themes and present discoveries creatively during Exit Ticket presentations.

Community-Based Learning, Grades 7 and 8

- Research and summarize global challenges related to climate change, public health, and inequality, connecting them to UN Sustainable Development Goals (SDGs).
- Analyze impacts, propose actions, and create presentations or exhibits to inspire sustainable practices.
- Study environmental issues and explore solutions using credible resources.
- Foster shared responsibility for the planet through connections to other living beings.
- For 8th grade, identify and act on social issues as part of Exit Ticket projects.

Computational Thinking, Grades 7 and 8

- Design and reverse engineer cryptosystems
- Explore Mersenne Primes and their applications in computer science
- Develop skills in research, documentation, and presentation.

- Apply computational thinking principles: abstraction, decomposition, pattern recognition, testing/debugging, algorithm design, data analysis, automation, and modeling.

Language, Grades 7 and 8

- Spanish & Mandarin:
 - Develop conversational and written Spanish or Mandarin skills, including vocabulary, verb conjugation, pronunciation, and sentence construction, through culturally relevant topics.
 - Research and compare cultural practices, such as sports, shopping, and environmental issues, in Spanish-speaking or Mandarin-speaking countries and their own.

PE, Grades 7 and 8

- Develop foundational skills in running, strength, and conditioning for Track & Field, Cross Country, and team sports.
- Practice core volleyball, basketball, and soccer techniques with a focus on teamwork and sportsmanship.
- Master throwing, catching, and target accuracy through diverse activities like badminton and frisbee.
- Build collaboration and sportsmanship through team-building and strategy games.

Performing Arts, Grades 7 and 8

- Explore rehearsal techniques and etiquette to develop leadership and collaboration skills within ensembles.
- Experiment with improvisation, chord progressions, and self-directed learning to enhance creativity.
- Develop instrumental, vocal, and compositional techniques for personal and group growth.
- Focus on performance preparation and participation in community concerts.
- Practice essential skills such as collaboration, inspiration, empathy, responsibility, and iteration through music.

Visual Arts & Design, Grades 7 and 8

- Explore composition, proportion, and perspective through printmaking, sculpture, and clay work.
- Create original art using diverse media to express identity, emotions, and social issues.
- Collaborate on murals and wearable art inspired by cultural values and contemporary artists.
- Develop mixed media works illustrating contrasting emotions and brain functions.
- Analyze and draw inspiration from notable artists to enhance creative processes.