ODYSSEY
STEM ACADEMY

Who Are We

Odyssey is a non-charter, public high school in the Paramount Unified Sc ``hool District created with a commitment to rethink beliefs and redesign structures to optimize supportive cultures and deeper learning.

Why We Exist

To empower learners by awakening their curiosity and passion to transform themselves and the world.

How We Work Together

Our values guide our most difficult choices and align us to our mission.

Infinite Potential
We believe in the infinite potential of all learners. We trust in each learner's capacity to thrive through an empowering education.

Respect
We demonstrate respect for people and the environment. We show compassion through our actions.

Excellence
We strive for excellence by seeking feedback, reflecting, and refining our craft.

Vulnerability and Humility
We demonstrate vulnerability and humility. We are committed to individual growth and learning.

Collaboration
We prioritize collaboration based on the belief that collective creativity and diverse perspectives generate our strongest ideas.

What We Do

The word learner throughout the document refers to all members of the school community.

Equity

Our community of learners celebrates the uniqueness of each individual. Systems and structures designed for equitable access to programs and opportunities ensure academic and social-emotional well-being for all. Meaningful ties among community members foster a trusting, caring, and mutually respectful culture. Intentionally diverse and integrated learning environments create a community-wide culture of achievement so that learners thrive in a multicultural, global society.

Learner-Centric

Agency, managing one's own learning, is cultivated through a collaborative school-wide culture that is intellectually challenging. Learners progress on a pathway unique to them. They co-construct purposeful learning experiences, monitor their progress towards learning goals, and determine how to exhibit their depth of knowledge and skill. Time and tailored support empower learners to meet high expectations in a safe learning environment that fosters innovation.

Authentic Work

Learners engage in authentic work that matters to them and the outside world. They use inquiry to design projects to tackle society's greatest STEM challenges. Literacy, numeracy, content knowledge and skills are strengthened through connections to meaningful, culturally relevant experiences across all disciplines. Intentional use of technology ignites anytime, anywhere learning. Learners make their thinking visible by curating and sharing their work with authentic audiences.

Learning Beyond Classroom Walls

Through multiple internships and authentic projects, learners become contributing partners in their work with industry professionals. Internship projects are connected to learner interests and deepen understanding throughout the curriculum. Through this work, learners navigate systems, build relationships, and establish a professional network. The mutually beneficial relationships result in academic growth and character development.

Family Engagement

Empowering learners to reach their full potential requires the combined effort of scholars, staff, families, and the community. Communication reaches beyond the standard parent-teacher conference to include families as valued and trusted participants in the learning process. Recognizing, understanding, and valuing individual backgrounds and life experiences contributes to learners' positive socio-emotional and academic growth.

What Graduates Can Do

These learning goals define graduate intellectual, interpersonal, and intrapersonal strengths.

Communication and Collaboration

Graduates are confident, respectful communicators. They initiate conversations and participate effectively in a range of collaborative discussions with peers and adults to build understanding of concepts and ideas and complete authentic tasks and projects.

Empirical Reasoning

Graduates observe phenomena, generate their own questions, design and conduct investigation, and construct and defend arguments as contributing members of society.

Quantitative Reasoning

Graduates make sense of quantitative phenomena by constructing viable arguments, justifying their thinking, and generalizing understandings to solve real-world problems.

Social Reasoning

Graduates understand diverse perspectives and engage with critical issues of the past and present to examine their impact on society. They use their understanding of local, state, and world policies to become active participants in local, national, and global communities.

Personal Qualities

Graduates possess the habits of mind to achieve their goals for the future. They are curious and express a joy for learning. They feel a sense of responsibility to make a contribution both at the local level and in the wider world.

What Scholars Demonstrate

Scholars demonstrate progress toward graduation using trimester exhibition milestones and ongoing competencies.

Communication and Collaboration

Collaboration Milestone - I participate in collaborative discussions with others to deepen my understanding, expand my perspective, and solve problems.	
Collaboration Competencies	
Collaborative Discussions I initiate and participate in rich collaborative discussions with peers and community members. I contribute accurate and relevant information to conversations applying an understanding of group dynamics with small and large groups.	*Diverse Perspectives* I expand understanding by actively listening, asking questions, empathizing with others and developing ideas. I synthesize diverse ideas to meet a collective goal that respects social influences, beliefs, and behavior across communities.
Communication Strategies I apply appropriate strategies of facilitation, collaboration, public speaking and nonverbal behavior.	*Solutions and Critical Conversations* I engage in critical conversations to solve authentic problems.
Understanding Milestone - I construct my understanding about topics through the analysis of multiple, varied, and complex sources.	
Understanding Competencies	
Multiple Sources I synthesize multiple and diverse sources to inform understanding of subjects under investigation. Sources may include media, novels, short stories, articles, research papers, websites and plays.	*Read for Understanding* I read widely and deeply from a broad range of texts that are increasingly challenging over a wide range of topics.
Text Analysis I comprehend, analyze and evaluate a wide range of literary and informational texts. Texts may include media, novels, short stories, articles, research papers, websites and plays.	

Expression and Representation Milestone - I creatively express myself while adapting to the purpose and audience.	
Expression and Representation Competencies	
Idea Generation I think creatively, using a range of idea-creation techniques, and elaborate, refine, and evaluate the resulting ideas.	*Inventive Thinking* I use original, creative thinking to solve problems in various disciplines and contexts. I use flexible thinking, adapting my own perspective to solve problems.
Language Use I discern audiences and use language that skillfully and clearly communicates meaning by applying contextually appropriate use of rhetoric, including grammar, word choice, tone and fluency.	*Verbal Expression* I speak clearly to inform and express ideas with presence and purpose.
Organization I intentionally structure writing to support a coherent and creative development of ideas across genres.	*Reflective and Adaptive Communication* I engage in the collaborative revision process. I seek feedback and actively reflect to increase clarity and impact. I reflect and adapt communication strategies based on intended purpose and audience to make an impact.
Products and Performances I create original, well-crafted, high quality products or performances.	
Evaluation and Research Milestone - I conduct academic research through the careful analysis of sources using ethical methods.	
Evaluation and Research Competencies	
Investigation I investigate the world deeply with heart and head through interdisciplinary and disciplinary study. I ask thoughtful questions and seek answers. I identify, gather, evaluate, and consider multiple perspectives to make informed decisions.	*Citation* I cite sources with accepted methods.
Expert Review I solicit expert feedback for use in the revision process.	*Others' Research* I demonstrate understanding of plagiarism and the value of compiling others' research.
Source Evaluation I evaluate the credibility of sources.	*Bias* I understand and demonstrate awareness of bias.

Empirical Reasoning

Design and Conduct Investigations Milestone I experience phenomena, make observations, and collect data though investigations.	
Design and Conduct Investigations Competencies	
Phenomenon Observation and Questioning I observe phenomena using senses and instruments enhancing these senses. I pose questions or define problems about phenomena that can be tested, distinguishing between an empirical question and a non-empirical question.	*Constraints and Specifications* When defining questions or problems, I ask questions about the constraints and specifications of possible solutions.
Experimental Design I design investigations that isolate variables and use controls to produce data that is used to answer questions about a phenomena.	*Empirical Investigations* I design empirical investigations to collect data. I determine what data to collect, what tools are appropriate for collection of data and how measurements will be recorded. I decide how much data is needed to produce reliable measurements, to show a pattern or trend, or to show a relationship between variables.
Patterns, Relationships, and Analysis Milestone - I make sense of patterns and relationships in observations and data through representation, analysis, and interpretation.	
Patterns Relationships, and Analysis Competencies	
Evidence I acquire empirical evidence to construct and refine explanations, arguments or models of particular phenomena.	*Patterns of Evidence* I distinguish patterns of evidence that do and do not support conclusions.
Correlation vs Causality I recognize patterns in data that deserve further investigation, distinguishing between causal and correlational relationships.	*Relationships and Quantities* I express relationships and quantities appropriately.
Dimensional Quantities and Units I recognize dimensional quantities and use appropriate units.	

Modeling and Explanations Milestone – I construct models and causal explanations of phenomena using evidence and reasoning.	
Modeling and Explanations Competencies	
Limits and Precisions of Models I represent phenomena with multiple types of models, recognizing and expanding on the limits and precision of each.	*Computer Simulations* I use computer models to develop understanding, investigate questions, and define problems, which would otherwise not be possible.
Empirical Evidence and Models I use primary or secondary empirical evidence and models to support or refute explanations.	*Predictions* I understand that predictions, explanations or thinking can be revised on the basis of new evidence and information.
Critique, Argumentation, and Revision Milestone - I revise ideas, models, and explanations through critique and argumentation.	
Critique, Argumentation, and Revision Competencies	
Engaging in Argument from Evidence I construct an empirical argument that uses reasoning to show how evidence supports a claim.	*Investigation Conclusions* I evaluate the validity and reliability of the claims, methods, and/or designs that appear in scientific or technical reports.
Weaknesses in an Argument I identify possible weaknesses and flaws in my own arguments, responding and improving arguments based on criticism.	*Controversy in Science, Social Science, and other Disciplines* I explain the nature of the controversy around an idea, understanding how knowledge is judged by the community.

Quantitative Reasoning

Thinking Like A Mathematician - I make sense of phenomena and construct a valid mathematical argument, to convince myself and other people that something is true.	
Thinking Like A Mathematician Competencies	
Conjecture and Test I experiment and play with situations and ideas. I look for patterns and wonders about what might ALWAYS be true. I ask questions like "What if...?" "Will this always happen? "Why is this happening?"	*Justify and Prove* I use deductive reasoning and logical statements in support of or against a mathematical claim.

Mathematical Authority I author mathematical ideas, rules, and formulas. I decide (with the input of others) what is true and untrue on the basis of the reasoning of the argument.	
Algebra Milestone - I recognize and analyze patterns, study and represent relationships, generalize, and analyze how things change.	
Algebra Competencies	
Doing and Undoing I understands algebraic thinking often involves reversibility or being able to undo mathematical processes as well as do them.	*Function Rules* I organize data into patterns to bring out hidden meaning.
Expressions and Equations I write or rearrange expressions to bring out hidden meaning.	*Applying Functions* I think quantitatively about real world phenomena and a context for studying relationships and change.
Multiple Representation I create and use multiple representations to solve problems (graphically, symbolically, situationally, and verbally).	
Geometry Milestone - I interpret real world phenomenon using geometric models.	
Geometry Competencies	
Geometric Diagrams I use diagrams to illustrate geometric thinking.	*Changes and Stability* I understand geometry is about working variances and invariance and not theorems.
Definition I develop definitions central to geometry based on the attributes of shapes and objects.	*Proofing* I understand a proof is the endpoint of a process.
Statistics & Probability Milestone - I analyze and interpret data distribution to better understand a real-world phenomenon and see how situations affect chance.	
Statistics & Probability Competencies	
Constructs Models I construct models to demonstrate that data consists of structure and variability.	*Variability* I compute, analyze, and interpret variability in various data displays and sets.
Hypothesis I interpret data to test hypotheses.	*Data Visualization*

	I create and/or interpret various forms of data displays (infographics, etc.) and use those to evaluate claims and identify assumptions and bias.
Chance & Probability I recognize how conditions or assumptions affect the computation of chance.	

Social Reasoning

Critical Issues and Events Milestone - I analyze past and present events to critical issues and make claims about the future.	
Critical Issues and Events Competencies	
Current Events I read, interpret, and reflect upon contemporary and global events to analyze causes, effects, and the linkages between human decisions and consequences.	*Historical Thinking* I make meaning of past events by sourcing, contextualizing, corroborating and using close reading methods associated with historical inquiry.
Past, Present, Future I use the understanding of the past and present to develop a well formed hypotheses about potential future events and conflicts and propose solutions to address future problems.	
Geography and Environment Milestone - I analyze the interaction between people and their environment to make connections and examine impact.	
Geography and Environment Competencies	
Geographic Information I understand and apply geographic information and global connections to interpret events.	*Political Impact* I demonstrate how geography and resource distribution affect economics, social patterns and politics.
People and Their Environment I interpret geographic information to demonstrate an understanding of the relationship between people and their environment.	*Equity and Access* I interpret the relationship between people and their environment to demonstrate an understanding of how equity, access, and opportunity are impacted.

Institutions, Systems, and Government Milestone - I understand the of individuals in government.	
Institutions, Systems, and Government Competencies	
Citizens and Government I understand the relationship between citizens and government. I understand individual rights and responsibilities in various governmental structures.	*Government Engagement* I apply knowledge of political and social systems to participate actively as an informed citizen at a local, state or national scale.
Large and Small Scale Finance I demonstrate the understanding of the differences between large and small scale finance by solving a real-world problem related to the financial system of a government, commodity, small business, or individual.	*World Politics* I understand the principles, structures, and functions of state, national and international government and demonstrates the relationships and impact of local and national policies on multiple nations.
Human Behavior and Expression Milestone - I analyze why people behave the way they do.	
Human Behavior and Expression Competencies	
Belief Systems I examine social influences, beliefs systems and their relationship on behavior.	*Ethics* I analyze issues of ethics and social responsibility.
Human Behavior and Relationships I can articulate the impact of biological, cognitive and sociocultural factors on human behavior.	*Power and Relationships* I examine group dynamics and evaluate the role of power in interpersonal and group relationships.

Personal Qualities

Strong Mind Milestone
I look for ways to deeply engage with new ideas and experiences.

Strong Mind Competencies	
Curiosity I demonstrate the tendency to ask questions to deepen understanding. I eagerly anticipate new experiences and takes the initiative to learn more about topics of interest.	*Purpose* I demonstrate an understanding and conviction of the "why" behind my interest. I reflect on how to modify current work to enhance its connection to core values. I seek and find inspiration in purposeful role models.
Zest I demonstrate enthusiasm and energy for ideas and projects. I actively participate in activities and invigorate others by exhibiting passion for my interests.	

Strong Heart Milestone
I actively seek ways to demonstrate interest in and acknowledge other people's needs, ideas, and contributions.

Strong Heart Competencies	
Gratitude I acknowledge the contribution of others and actively seek multiple ways to thank others and give back to individuals and groups who have made a difference.	*Social Intelligence* I actively seek to understand other people by actively listening. I demonstrate the ability to navigate social environments and build positive relationships.

Strong Will Milestone I exercise my will power to stay committed to long-term goals and seek to learn from challenges.	
Strong Will Competencies	
Grit I set personally meaningful goals and stick to commitments even when it's difficult. I ask for and reflect on feedback to improve.	*Self-Control* I control my actions, thoughts and feelings to align with personal long-term goals.
Growth Mindset I view struggles as a way of improving. I seek out challenging problems and experiences. I share mistakes and embrace setbacks as opportunities for growth.	