Early Childhood Curriculum and Assessment

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EVEN THOUGH IT MAY SEEM A LIFETIME AWAY UNTIL YOUR CHILD GRADUATES FROM HIGH SCHOOL OR ENTERS THE JOB MARKET…

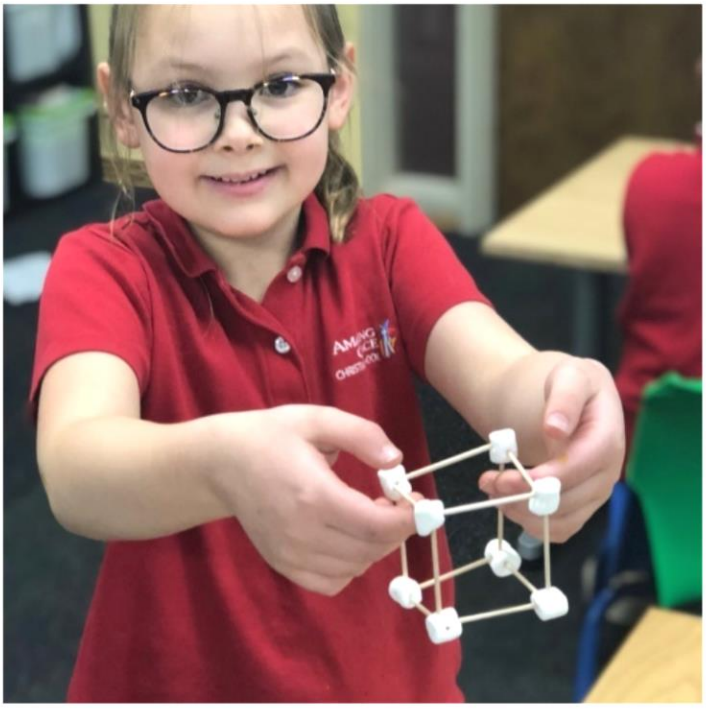
…WE ARE LOOKING TO ENSURE THE FOUNDATIONS WE PROVIDE NOW ARE PREPARING YOUR CHILDREN FOR THEIR LIFE IN THE FUTURE.

Early childhood is an exciting time to learn. It feels like yesterday when your child took their first steps and spoke their first words...

INTRODUCTION TO EARLY CHILDHOOD LEARNING

Early childhood is an exciting time to learn. It feels like yesterday when your child took their first steps and spoke their first words.

Now they are making new friends, learning how to interact with others in a learning environment outside their home, and practicing skills that will become the foundation for their future and using their creativity to build new knowledge. Even though it may seem a lifetime away until your child graduates from high school or enters the job market, we are looking at the latest research and leaders in innovation to ensure the foundations we provide now are preparing your children for their life in the future.



There are reports that suggest in the next 20 years, more than 40% of the jobs that exist now will be automated. It is crucial for us to stay on the cutting edge and adapt learning to prepare them for a way of thinking, innovating, creating, adaptability, and social interaction that will be

essential for their life in the future. Read more about projections for the Class of 2030. For these children, technology is the only world they know.

Whether your child decides to be an astronaut an artist or one of the countless jobs that don't even exist yet, or choose to stay at home as a parent, we are helping them to develop the skills for social and emotional relationships, the ability to be adaptable, creative, and know how to seek knowledge when they don't have all the answers to help make them successful.

Today's kindergartners will graduate better prepared for their futures if they have a strong social and emotional foundation that is developed in a personalized learning environment, according to new Microsoft research conducted in collaboration with McKinsey & Company's Education Practice. The study revealed new insights into the knowledge and experiences students will need to be "life-ready" and not simply "work-ready."

http://edudownloads.azureedge.net/msdownloads/Microsoft_Education_Classof2030.pdf

Did you know that there are studies that show how children tend to decrease their ability to demonstrate creativity as they get older in traditional school environments? Many traditional models of education train children to respond to commands, learn that there is one correct answer, how to fill in blanks, color in the lines with the color their teacher tells them to use, and to listen to lecture-style teaching. Although this can be an efficient way to learn content, it doesn't help young people develop thinking skills, social and emotional skills, and challenge creativity to grow. Our school's curriculum is designed to encourage curiosity that leads to new ideas and innovation, social and emotional learning that builds positive relationships and collaboration, and uses technology to help them research, produce, and share new knowledge. Our goal is to prepare your child for life beyond school. See a visual overview and video of our school here.

WHAT IS CURRICULUM?

Many people think that curriculum is a textbook publisher. However, curriculum is broadly defined as the totality of student experiences that occur in the educational process. It is important to keep those totality of experiences balanced to support child development. Our curriculum seeks out the latest research to prepare your child for the future. For a Kindergarten student who starts now, we are looking forward to predictions for the year 2030. Check out the Education Glossary for Parents.

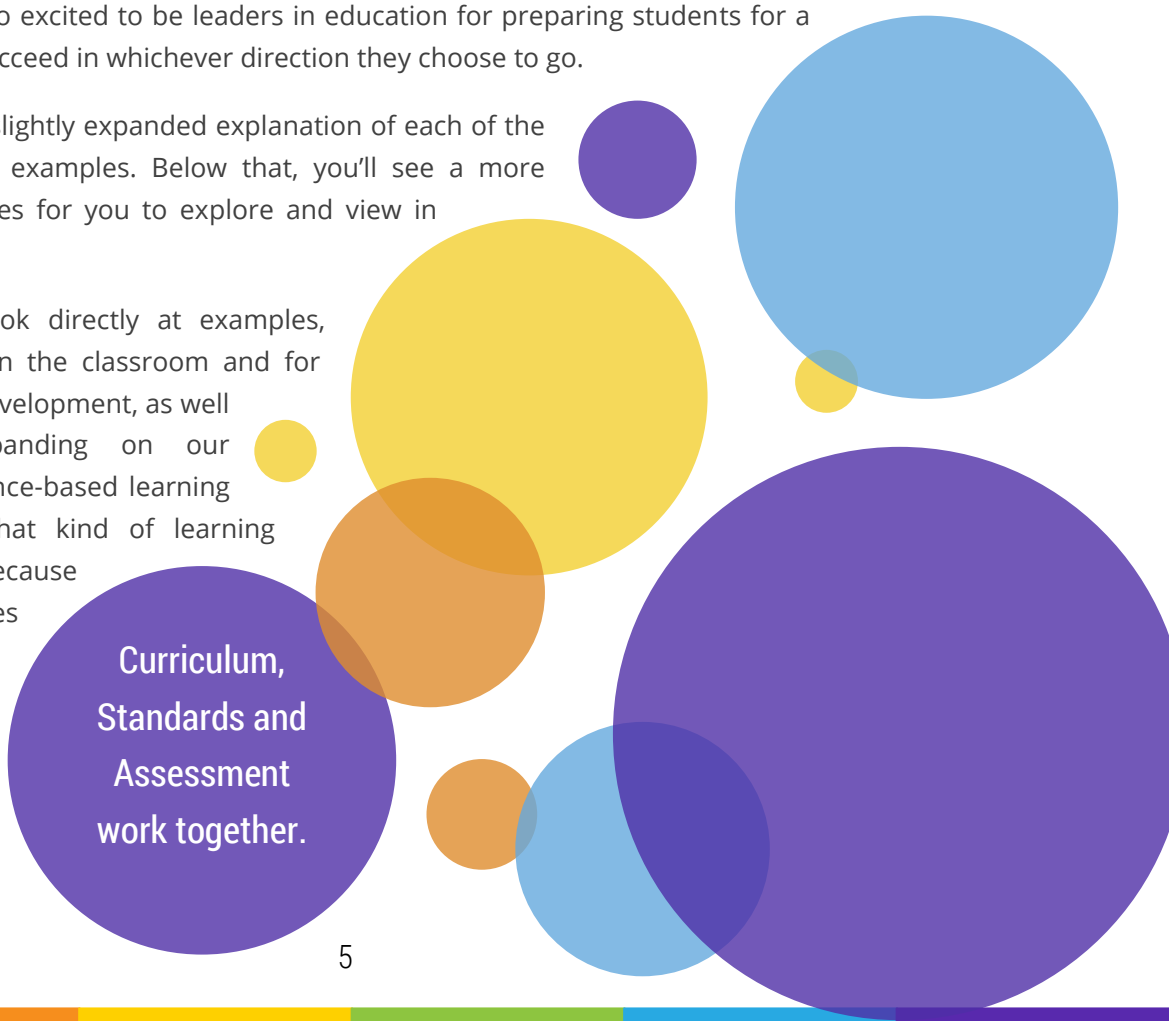
When we talk about learning, you will hear words like:

Curriculum	Experiential Learning	Fine Arts
Standards	Technology	Play
STEM/STEAM	Literacy	Assessment
Blended Learning	Number Sense	

This document will break down these terms for you and give you links with student projects and videos as examples to understand how these pieces have been intentionally built to create a world-class educational environment for your child. You'll be able to see actual student examples, many of which have been selected to present at local, national, and international conferences to train other educators to help make their learning more dynamic. We are so excited to be leaders in education for preparing students for a future where they can succeed in whichever direction they choose to go.

The first part will give a slightly expanded explanation of each of the terms above and some examples. Below that, you'll see a more extensive list of resources for you to explore and view in more detail.

You will be able to look directly at examples, websites we use both in the classroom and for educator professional development, as well as websites for expanding on our curriculum, and experience-based learning off campus. We call that kind of learning "experiential learning" because it is based in experiences in addition to listening to a teacher or reading about something.



Curriculum is the overall combination of learning experience designed by the school and students. Our schools are different in that we want learners to take an active role in helping us form the direction we take to get to the end goal.

Standards help us determine what the goal is. They are set by experts in the educational field. *Assessments* help us determine if we met the goal.

For example, learning about buoyancy, how things 'float' can be taught verbally. It can also be taught by engineering foil into shapes and testing it in water to experience what works and what doesn't work. If students particularly take an interest in boats, the teacher can help approach various facets of learning through the framework of boats and expand on that interest. They may bring in videos on boat building, guest speakers, look at history and geography though locations boats are most used, port cities and community careers surrounding boats, and cultural lenses of seeing how Indigenous People of the Pacific Northwest used Cedar trees to build boats. They may look at famous artists representations of boats and then create their own art. They can practice communication skills by talking about what they learned and create presentations. When students are able to speak about something and explain it, they are demonstrating a knowledge of that content.

In this example, boats anchored learning across content, but still fulfilled required content in language arts, art, history, social studies, science, and math. That investigation may lead to other questions about boats powered by wind, and wind can lead to other inquiry that teachers can align to content standards. See an example of how Kindergarten Prep studied wind power. Wind power can lead to other ways to investigate engineering with the wind, like Kindergarten Prep constructing Wind Power Carriages for Cinderella, or air resistance and parachutes for another way for Jack to get down from the Beanstalk.

Standards help create a structure for that learning to ensure there aren't gaps in knowledge across grades. Assessments help us understand how your child is reaching the goals, student understanding, and the ability to apply learning. Blended Learning allows us to combine more than one way of learning at the same time. Technology can assist in each of these areas from curriculum content to Blended Learning, aligning standards and helping us understand student knowledge.

The combination of these elements makes our system of learning more dynamic than if students were only allowed one perspective from one set of textbooks that are print source and may become outdated when new information emerges (especially in the sciences).

Although we do utilize some print sources, and learn through library field trips, the value of drawing on digital and internet resources is to provide your child with a global perspective rather than only one perspective of one textbook company that aligns with one type of curriculum for the totality of their experience of learning. We want educational experiences to reflect a beauty in global diversity, as well as multiple ways of learning.

These ways can include books, real-life experiences on field trips that connect with core subjects, real-life experiences working with peers and those of different ages through collaboration and mentoring, internet resources that are created for young people like Discovery Education (established by the Discovery Channel), PBS LearningMedia and Nova to name just a few. Guest speakers and Skype Virtual Field Trips are important ways to connect to experts. The photo shows a guest speaker from Boeing talking about aeronautics.

EXPERIENCED CURRICULUM

Curriculum is the combination of experiences that create an educational process. To ensure consistency, we align our curriculum to standards. Standards help to ensure that your child is getting a broad and deep range of learning. Standards also help provide an anchor and framework for the curriculum. We have selected Core Knowledge Curriculum for the rigor and consistency that has strong alignment with Common Core State Standards. Core Knowledge becomes the base content knowledge that we cover. It provides an outline to creatively approach how that learning happens. See more information about Core Knowledge. You are also welcome to download the curriculum guides.

Core Knowledge®

STANDARDS

With all the great elements of learning that extend beyond printed book sources, having standards helps to create a framework and consistency across grades from early childhood through high school to prepare your students for college and career readiness.

- Common Core State Standards
- Next Generation Science Standards
- International Society for Technology in Education
- World-Readiness Standards for Language Learners

TO SUPPORT OUR CORE KNOWLEDGE CURRICULUM SEQUENCE AND ALIGN WITH STANDARDS, WE DRAW ON A VARIETY OF ADDITIONAL TECHNIQUES

Here are a few examples including STEM/STEAM, Blended Learning, Experiential Learning, Technology, Literacy, Number Sense, Fine Arts and Play

STEM/STEAM

You may have heard, or will hear, your child say STEM or STEAM and wonder what it means. One of the goals for your child is to ultimately be able to articulate their learning to you and what it means. This guide will give you an overview to help with the basics.

What is STEM/STEAM?

STEM is an acronym that represents a way of learning that combines science (S), technology (T), engineering (E), and mathematics (M). Read a US Department of Education report on the vision for STEM learning by the year 2026. When the arts are integrated into this combination, it is referred to as STEAM. Read our blog describing more. This is an article that talks about the importance of including the arts with STEM. As mentioned above, one goal is for students to be able to articulate their learning. Click on the link to see an example of how high school students describe and demonstrate STEAM learning. In the link, they included collaborative projects with early childhood buddies.

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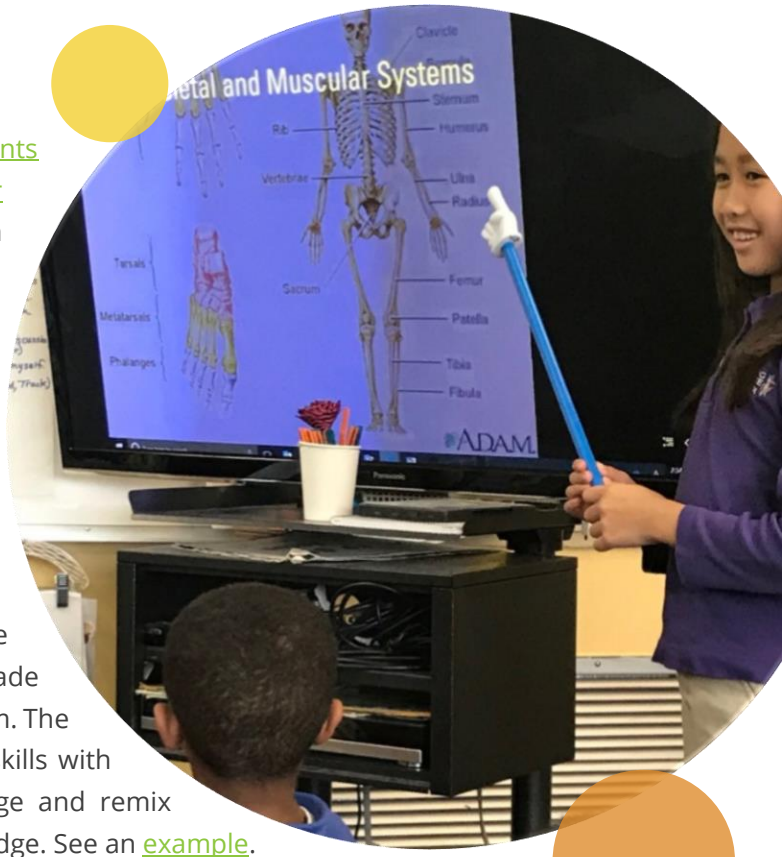
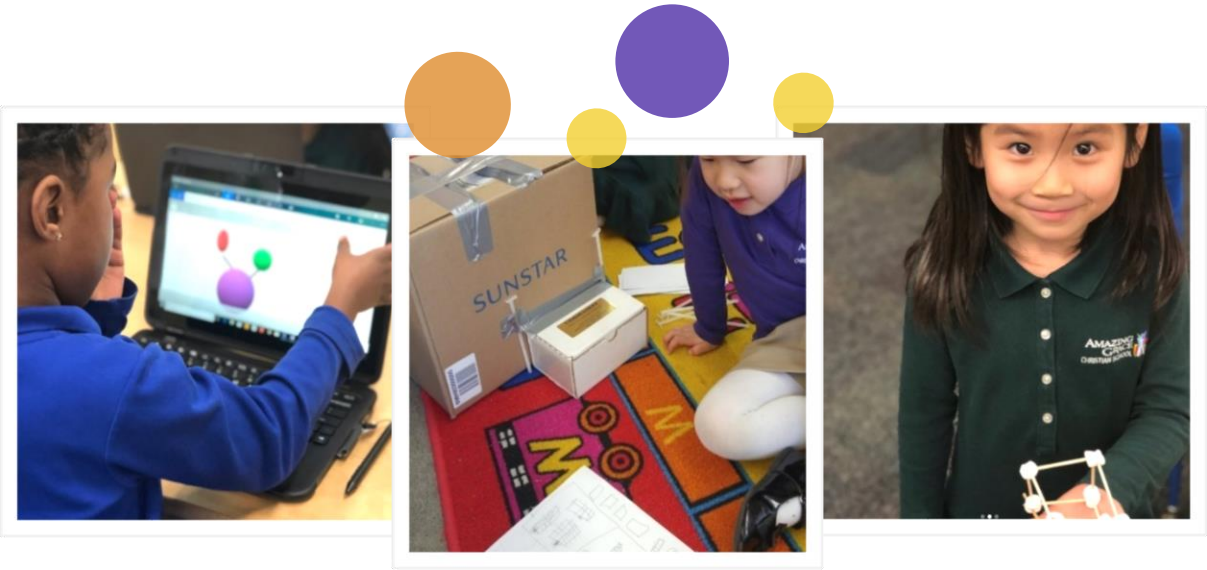


Many STEAM projects start out with older students modeling more complex tasks, then mentor younger students. Their videos may become tutorials to teach younger students. In this case, 4th grade students created videos to describe the life cycle of a plant in biology. The picture above shows a 1st grade student using digital ink, careful observation of the seed, and diagraming the parts. Because the computers are touch screen, students can draw with their fingers or a digital pen.

High School students learning anatomy and physiology can practice their skills by finding the simplified, core concepts and practice explaining it in a way that a 2nd grade student can understand, then co-create a video with them. The older students taught the younger students research skills with Discovery Education footage, helped them edit footage and remix content with their own words and co-create new knowledge. See an example.

In early childhood education, engineering can refer to physically building with objects and it can also refer to practice in thinking like an engineer where students work to solve problems with constraints, and need to iterate design after testing and failure occur. Watch how 4 year olds can talk about the STEM process and even record the trials for documentation here as they built bridges. Learning to re-design helps to build a flexibility of thought, resilience, growth mindset, and experience productive struggle. Practicing failure and how to overcome it is crucial at a young age to build resilience and confidence. Watch the short TEDEd video on this topic.

Another example of a STEAM Project that originated from a challenge for middle and high school students and adapted for early childhood in third grade, then Kindergarten Prep is the Gingerbread Challenge. This connects STEAM with literature. The classic children's book, *The Gingerbread Man*, has a famous line: "Run, run, as fast as you can! You can't catch me, I'm the Gingerbread Man!" The middle and high school students were challenged to create a trap to catch the gingerbread person. Then then needed to create the back story of how and why the gingerbread person got to that trap in the first place. They were required to communicate their process for engineering, math, science and technology, though process writing, but also had to draw on creative writing skills to produce a short film about their story.



Third grade took an economics approach to their gingerbread trap, and Kindergarten Prep created bridges for the gingerbread person to cross.

STEAM can also include building castles and following blueprint designs before building, and modeling chemical compounds by hand and water molecules with Paint 3D.

Our students have talked about STEAM learning all the way in New York, invited by Scientific American, Macmillan, and at New York Academy of Sciences and New York Academy of Medicine.

This is a process of learning that begins young, but if students move in from another school without the experience, they have support and collaboration across grades. It is common for students to experience productive struggle for the first time as it is very different than feeling successful memorizing for a test.

Watch video clips of STEAM and Mentor Buddies by swiping and tapping play to here young children and their mentors.

BLENDED LEARNING

Blended Learning can be defined several ways. It can be defined by combining multiple subjects together. It can combine experience-based learning and more traditional instruction. Blended learning can also combine online components with technology.

Blended learning can include STEAM. This is an example of an entirely student designed, directed, and created final product that became an assessment and demonstration of their knowledge. Although it is an example of older students, it shows goals for Blended Learning.

When students start this process young, they can successfully co-design learning that transfers beyond the walls of the classroom. Standards provide a guideline of how much, what level, and what kind of things students should ideally master through school experiences.

EXPERIENTIAL LEARNING

Experiential Learning is learning that is based in experiences rather than listening to lecture, memorizing and repeating content. Experiential leaning can take many forms. Some of them include:

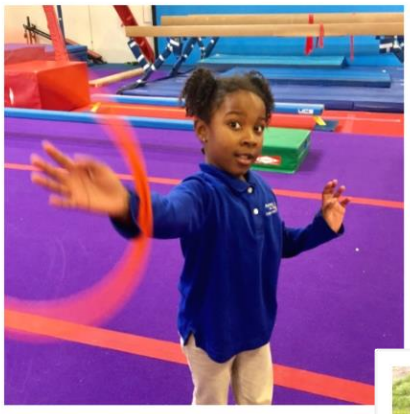
- Field trips
- Hands-on projects
- Play

Hands-on projects can be messy, independent, collaborative, with technology or without. There are many examples of hands-on STEM projects in the previous section. Experiences help build a knowledge base that engages senses. Sometimes it is called multi-sensory. We know that when learning is encoded in the brain through multiple pathways, it is more easily recalled. We also know that the more experiences one has and talks about those experiences, the more connections learners can make. Being able to make connections is an important part of creativity and innovation.

Field Trips

Children need to move, explore, and engage with the world around them. Field trips are always intentionally connected to curriculum and tied back into content. Below are some examples of field trips part of early childhood education:

Pacific Science Center	Kubota Garden	Seattle Symphony
MOHAI	Seattle Art Museum	Seattle Asian Art Museum
MoPOP	Video capture	Renton IKPAC School dance show
Living Computers Museum + Labs	Seattle Children's Theatre	Seattle Gymnastics Academy
Klondike Goldrush Museum	Bill & Melinda Gates Discovery Center	**Microsoft Education Field Trips**



CHILDREN NEED TO MOVE, EXPLORE, AND ENGAGE WITH THE WORLD AROUND THEM!

PLAY

Play becomes a way to get at learning so that positive emotions are associated with learning. Read 10 things every parent should know about play here. This document from Montana State University describes the importance of play and the types of learning that occur with play.

- Social and Emotional Learning
- Motorskills Development
- Sportsmanship
- Creative imagination for developing passions

TECHNOLOGY

It is important to balance the use of technology with life experiences and human connection. Technology can be used to amplify great learning, especially in collaboration with a big buddy as a mentor. Read about research that was published based on our model here. See more detail on the chapters here. It is crucial to keep humanity at the center of learning and not just place children behind screens by themselves. Discussion and collaboration with technology assists in social and emotional development as well.

For parents who are new to technology, here's an article with 10 tips for parents of young children. Also look at PBS Kids.

We are a Microsoft Showcase School. Please enjoy a student co-created video to learn more about what that means.

In order to train our teachers and connect with other educators globally, we're all part of the Microsoft Educator Community and each of our educators are Certified Microsoft Innovative Educator.

As an adult, you may also choose to join the community and learn the tools with tutorials and courses that your children will learn in school as part of projects and assignments. Here are some examples of Microsoft tools your child will use:

Microsoft Teams	Outlook	Office 365
Sway	PowerPoint/Office Mix	OneDrive
OneNote Class Notebook	Digital Ink	Paint 3D
Forms	Minecraft Education Edition	Fresh Paint

It is important to balance the use of technology with life experiences and human connection.

Our educators go through extensive and rigorous training and are all Certified Microsoft Innovative Educators.

Our educators go through extensive and rigorous training and are all Certified Microsoft Innovative Educators. Educators who have been at Renton Prep for more than one year are eligible to apply to be selected by Microsoft as Microsoft Innovative Educator Experts (MIEExpert). This program provides MIEExperts the option to present nationally at conferences to help inspire and train other educators to do what we are accomplishing at Amazing Grace and Renton Prep. Minecraft Education Edition has the ability to harness learning across multiple domains from science and social studies to history and the arts, not to mention social and emotional learning.

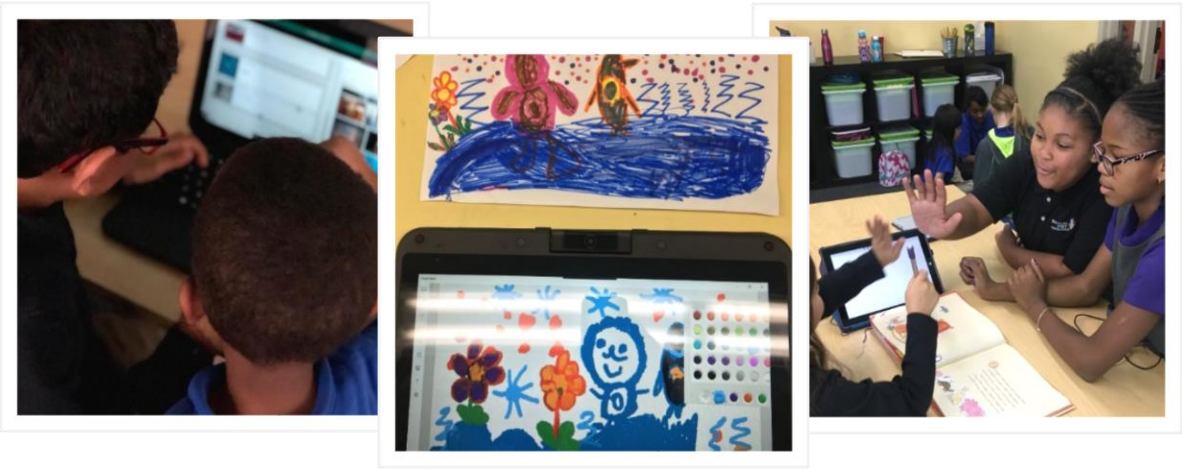
Please enjoy a student created video on perspectives about Minecraft and learning.

Getting Smart conducted a research study with our school and several others, investigating social and emotional learning. You can find the report here.

The companion podcast exploring from a slightly different perspective is here.

Students also practicing coding skills:

- Code.org
- Microsoft MakeCode



In addition, our students frequently present at educational technology conferences. Read some stories here.

- Student collection from presenting:
  - Renton Presents at FETC 2017
  - Renton Prep Students Wow at TCEA
  - Stem Summit 4.0
  - Renton Prep at FETC 2018
  - NCCE 2018
  - Reflection after the first time co-presenting with other students from Renton Prep

Along with Microsoft tools, we also work with Mixed Reality, Virtual Reality, and other types of electronics. Mixed Reality with HoloLens. See more here.

- Student created video
- AR/VR
- First Grade Student with Solar System

Personal Safety, Technology Safety, and Digital Citizenship

Skype call with a fire safety expert teaching age 4 as a guest speaker.

Common Sense Media has a range of resources for educators, curriculum, parents and students.

Experts as guest speakers for parents at our school: http://www.kcsarc.org/communityed.

Cultural Studies and World Languages

Code of Hammurabi classroom codes	Duolingo
Hear one of our teacher's story.	National Geographic Live
Seattle Center Festal	Harvard Graduate School

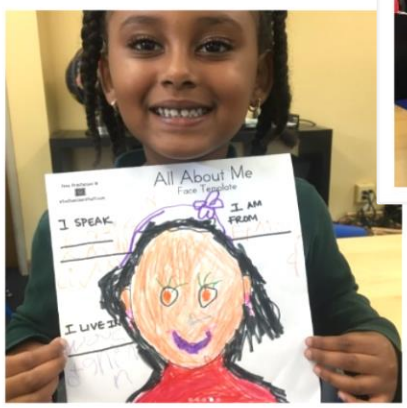
The Global Goals

In 2015, world leaders agreed to 17 goals for a better world by 2030. These goals have the power to end poverty, fight inequality and stop climate change. Guided by the goals, it is now up to all of us to work together to build a better future for everyone.

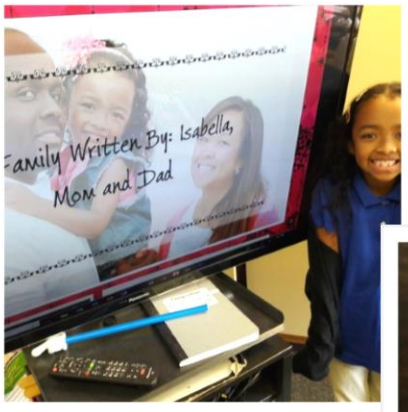
Students share about their family and culture as well as family heritage. See some here:

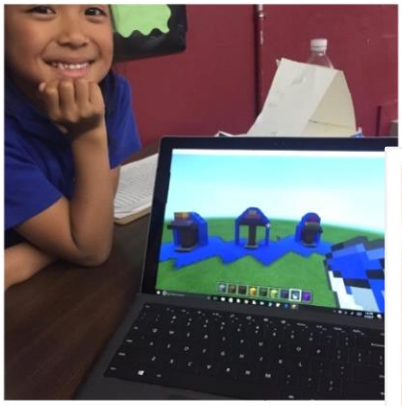
Simarjot	Elaine	Eyoel
Mady	Dominic	

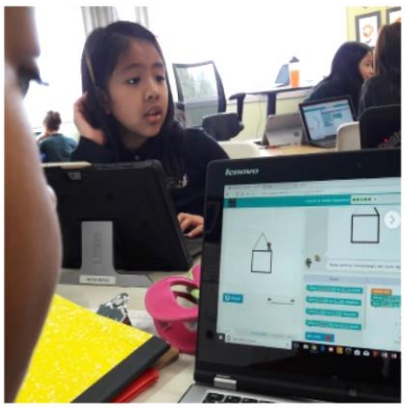

Jan. Feb. Mar. Apr. May June
July Aug. Sept. Oct. Nov. Dec.
September


All About Me
Face Template
I SPEAK
I AM FROM


I SPEAK
MY NAME IS


Family Written By: Isabella,
Mom and Dad





LITERACY

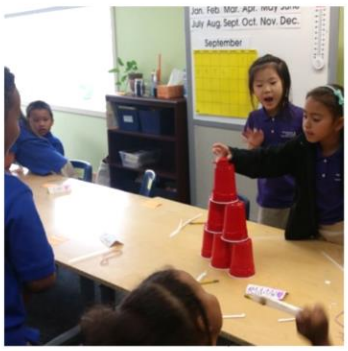
Literacy can come in many forms. We want students to have experience with navigating a library and working with librarians, and we also want them to know how to research online. We want them to use their literacy to read, write, and communicate their ideas in a way that brings positive change. Read how Solyanna did this by writing 34 letters of encouragement. Kindergarten Prep wanted to brighten people's day on a field trip and made cards to give. Digital literacy includes digital citizenship and how to evaluate sources. Our young people will be bombarded with information at their fingertips and part of training them for a digital world is to help them navigate vast amounts of information.

- National Network of State Teachers of the Year Social Justice book list.
- Listen to age 4 listening to a read-aloud and learning about emotions and voice levels.
- ABCMouse
- Listen to big buddies reading to and asking little buddies comprehension questions.
- **Microsoft Education Literacy**

Learn science in a fun way!

NUMBER SENSE AND SCIENCE

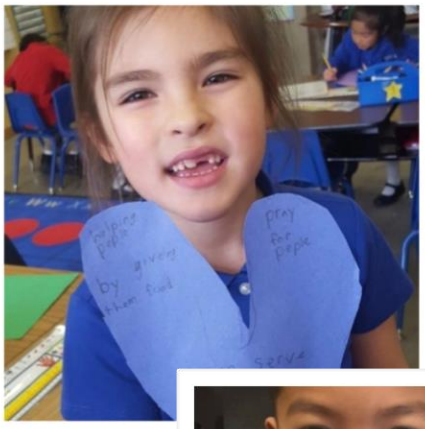
- Math/Fractions
- ABCMouse
- PBS LearningMedia
- PBS Kids
- https://www.instagram.com/p/BYy0aL_FknJ/?taken-by=rentonprep
- Discovery Education (established by the Discovery Channel)
- SumDog is engaging, evidence-based learning for early childhood through 5th grade to learn foundational math in a fun way.
- ALEKS is developed by McGraw Hill Mathematics. Available to accelerated 3rd grade students through high school. ALEKS is an adaptive program that allows students to accelerate through more than one year of mathematics in a school year regardless of age and grade level. Students master concepts before moving on to the next course.

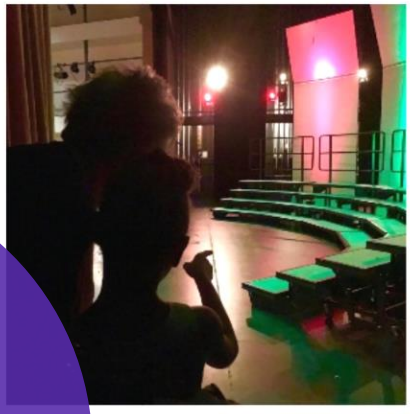


FINE ARTS

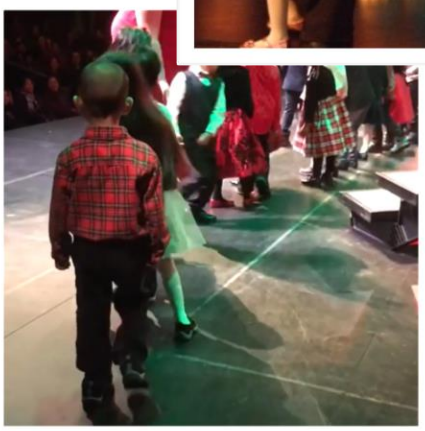
Fine arts begins with experience and the framework for our experiences begins with Visual Thinking Strategies.

Tova's Art Portfolio.





Fine arts begins with experience.



ASSESSMENT

We want students to be able to demonstrate their learning and talk about it with others. Rather than a traditional parent-teacher conference where the teacher takes the lead and shows grades for the first time, we have multiple events where students lead the discussion on their progress. Our Learning Celebration Night was a chance for students as young as 4 to talk with their caregivers and friends about their progress and how far they have come. They take ownership of their learning. This is done through both digital portfolios and collections of artifacts, in part inspired by the Internationally acclaimed Reggio Emilia Approach.

Reggio Emilia values documentation though video and photography to show evidence of learning and their natural interests and passions. This document on Curriculum and Assessment for Early Childhood Education is filled with photos as a reflection of that process. Photos and videos can capture the essence of learning in action in ways that words and number grades alone cannot express. Although numerical percentages have value, your child is not reduced to a number on a piece of paper. They are a living, beautiful human with a unique personality and a trajectory for life-long success. We went you to see what we get to see everyday when you're not in the classroom with us.

Assessment can take many forms. This section will talk about different types of assessment we use including:

- Summative
- Formative
- Non-traditional demonstrations of knowledge
- Standardized
- Competency

Click the link to see more details.

Summative Assessment

In traditional education systems, the model is to assess with a test at the end of a lesson, semester/quarter, or the end of the year to produce a "grade." The original purpose of a grade is to report how much memory a learner has at the end of a learning segment. Traditional grades are based on a percentage out of 100 points.

Formative Assessment

Formative assessment has a different purpose than summative assessment. Think of it as forming a picture of how a student is progressing along the way so that educators and family can help support and assist learning before the course of study is over. Formative assessment helps educators adjust, re-teach, or decide new ways of helping students demonstrate different ways of knowing. Not all students excel at taking tests. Some students do better in applying their knowledge to real-life concepts through projects, writing, or speaking.

Non-Traditional Assessment

We use non-traditional assessments to help students show their knowledge in more ways than only traditional assessments. Non-traditional assessments can include any way that requires students to understand a concept or content and show what and how they learned, or demonstrate how they can apply the new learning to another situation. It requires a different type of thinking other than just memorizing content. It is often a very different type of challenge compared to memorizing to repeat content. Students who typically find memorizing for tests easy feel much more challenged by these type of assessments because they inherently require mental struggle. Students who typically find memorizing challenging and a struggle often feel like they can shine for the first time with non-traditional assessments. They are used to the feeling of struggle, but with this type of assessment, they feel like they can show their knowledge in a way they couldn't before. Don't be discouraged if your child typically easily scored high on traditional assessments and easily memorized but is initially struggling with non-traditional assessment. This is normal. We work with students to understand that struggle is important for learning and applying knowledge to use it.

Standardized Assessment

Standardized assessment focuses on knowledge that children can recall without assistance. It often focuses on mathematics, reading and English Language Arts, and is in a multiple choice format. The questions are created by an external organization. That organization determines the content certain age students should know without assistance. The data is numerical. They find what they consider "normal" compared to students across the United States. At Renton Prep and Amazing Grace we don't look at Standardized Assessment as a tool to assign "grades" for students or to track them. It is a tool to help teachers understand their impact on a class, as well as ways to support learning. We use Edmentum to check on learning 3 times throughout the year. The scores are not for families as they will not count toward grades. The scores are to help faculty know the best ways to support and challenge learners, as well as for our own professional development as educators.

http://www.edmentum.com/

https://www.edmentum.com/resources/videos/edmentums-individualized-learning-solution

COMPETENCY

Competency assessments measure growth and show consistent and accurate proficiency on specific skills or concepts. When a student demonstrates proficiency, they have done everything required to accurately and completely show learning through a task. The goal is to move toward mastery, where students are able to communicate, collaborate, self-regulate, and create without the assistance of external adult prodding or checking in. They bring in additional resources and perform above the requirements necessary to become proficient. When students go above and beyond mastery, consistently bringing in novel approaches, outside resources, creative solutions, and combine domains in meaningful ways, communicating their learning in a clear way to specific audiences outside the classroom, they have attained more than mastery-their work is exemplary.

Competencies are measured against standards through intentionally designed assessments or projects, which may include Summative, Formative, Non-Traditional, and/or Standardized assessments. They include Experiential Learning, Blended Learning, STEAM, and/or Technology. Renton Prep and Amazing Grace competency based assessments aim to move beyond an individual skill or content component of learning to demonstrate proficiency within a given context, specific audience, authentic problem or challenge to solve, and with a broader scope than just the classroom. Think of it as a way to practice life skills of applying "school" to life beyond the classroom. Collaborative and interdisciplinary components, creativity, working within constraints, and authentic settings. It's not just a one-time data point. There are multiple opportunities to demonstrate. The focus of a competency-based assessment is that a learner should master all aspects of a skill or concept prior to moving to the next level of challenge or difficulty.