DRAFT- Elementary Mathematics Plan

Focus on deepening content by moving ***toward*** integrated conceptual/procedural instruction. Focus on moving pedagogical delivery ***from*** teacher directed ***to*** problem/student centered ***toward*** learner responsive.

This is a tentative outline for a more extensive plan aligned to district goals, policies, and implementation.

		Professional Development	Curriculum / Instructional Materials	Leadership Capacity
8	**Year 8: (July/August 2018-July 2019)** Mathematical Practices (Continued focus all 8 practices; and which practices best support NVACS content) **Content Focus: Fluency** **K-5**: Developing stronger understanding around the big idea of number through deeper explorations of models, strategies, properties of operations, relationships between properties through the lens of student understanding based upon child-watching and anticipating student responses. NVACS: Counting & Cardinality (pk &K only: CC), Number Base Ten, & Operations (NBT), and Algebraic Thinking (AO). **Claim 1: Concepts & Procedures** **District Alignment focus:** Define Fluency & apply researched based fluency practices Continued focus on building classroom environment and classroom management considerations for teaching to the NVACS through a "teaching through problem solving" approach based upon planning to the big mathematical idea. 21st Century Competency focus: Collaboration, real-world problem solving and self-regulation. **Instructional focus: Learner Responsive (anticipate student responses, plan & adjust instruction accordingly)**	**Year 8: (July/August 2018-July 2019)** • Effective Mathematics Planning & Instruction K-5 (1x monthly) • Mathematics Learning Labs (Observations) • Embedded site-based support and Rotational Day support • New Hire/Transfer Instructional Materials Trainings • Professional Learning Modules: Fluency in Math, 13 Rules that Expire: Building towards whole school agreement, Manipulatives, Child-Watching...	**Year 8: (July/August 2018-July 2019)** • K-5 Curriculum Guides (July 18) • Develop Common Report Alignment & Grading into 1st and 2nd grade • **Year 3: Bridges/enVision** • Pacing for Balanced, MTYR, Incline, Capital Projects • APTT materials available • Define "fluency" in mathematics • Define "literate" in mathematics	**Year 8: (July/August 2018-July 2019)** • 4 Instructional Coaches • Mathematics Content Leaders Team (extends from 2015 MSP Grant). Adding a year 2 component. • MCLT Recruit (fall—goal of 10 additional represented schools) and build content knowledge (spring) - focus on Geometry *sub out days for training • Implement Professional Learning Module design and vetting • Invite all site based coaches, CT, ISs, Deans to participate in Learning Labs.
9	**Year 9: (July/August 2019-July 2020)** Mathematical Practices (Continued focus all 8 practices; and which practices best support NVACS content) **Content Focus: Geometry** **K-5**: Developing stronger understanding around geometry and the special structuring that will enhance number, measurement and data standards. NVACS: **Geometry** (G), Counting & Cardinality (pk &K only: CC), Number Base Ten, & Operations (NBT), and Algebraic Thinking (AO). Extend and connect year 1 & 2 fluency work to deeper understanding of flexibility through knowledge construction and understanding of geometric ideas and how this enhances the levels of reasoning and problems solving. **Claim 1: Concepts & Procedures** **District Alignment focus:** Extension of work around Fluency & research based fluency practices to a focus on flexible reasoning and problem solving across mathematics domains. Continued focus on building classroom environment and classroom management considerations for teaching to the NVACS through a "teaching through problem solving" approach based upon planning to the big mathematical idea. 21st Century Competency continued focus: Collaboration, real-world problem solving and self-regulation; integrate knowledge construction and skilled communication. **Instructional focus: Learner Responsive (anticipate student responses, plan & adjust instruction accordingly)** ***Note: ELA Implementation for New Instructional Materials *June 2019 Legislative Implications***	**Year 9: (July/August 2019-July 2020)** • Maintain practices from previous year • Coach & Collaborate Site-Based Support • Instructional Coaching development through lesson study approach (ELA/Math) • Administrator Focus and support (courses/modules-based upon needs assessment) • Professional Learning Modules: Fluency in Math, 13 Rules that Expire: Building towards whole school agreement, Manipulatives, Child-Watching..., Number Talk and Whole Class Discussions	**Year 9: (July/August 2019-July 2020)** • K-5 Curriculum Guides (July 19) • Implement Common Report Alignment and Grading in 1st and 2nd grade • Develop Common Report Alignment and Grading into 3rd, 4th and 5th grade • Pacing to include SBAC IAB's • **Year 4: Bridges/enVision** • Pacing for Balanced, MTYR, Incline, Capital Projects • Resource from C&I to define High Quality Instruction across ELA/Math • Build trajectories for "Intensified" focus instead of remediated focus.	**Year 9: (July/August 2019-July 2020)** • Increase to 6 Instructional Coaches (Move to 6 general funded positions to provide embedded math coaching in 5 schools) • Mathematics Content Leaders Team (extends from 2015 MSP Grant). • MCLT Recruit (fall—goal increase to 20 represented schools) and build content knowledge (spring) - focus on Measurement *sub out days for training • Implement Professional Learning Module design and vetting • Administrator Professional Learning (small group PLC with observations, per administrator request & input on design)
10	**Year 10: (July/August 2020-July 2021)** Mathematical Practices (Continued focus all 8 practices; and which practices best support NVACS content) **Content Focus: Measurement** **K-5**: Developing stronger understanding around the big idea of number through deeper explorations of measurement and data standards. NVACS: **Measurement** and Data (MD) building from Counting & Cardinality (pk &K only: CC), Number Base Ten, & Operations (NBT), and Algebraic Thinking (AO). Extend year 1 fluency and connect to MD work. **Claim 1: Concepts & Procedures** **District Alignment focus:** Continued work around building district-wide definition of Fluency & apply research based fluency practices. Continued focus on building classroom environment and classroom management considerations for teaching to the NVACS through a "teaching through problem solving" approach based upon planning to the big mathematical idea. 21st Century Competency continued focus: Collaboration, real-world problem solving and self-regulation; integrate knowledge construction and skilled communication. **Instructional focus: Learner Responsive (anticipate student responses, plan & adjust instruction accordingly)**	**Year 10: (July/August 2020-July 2021)** • Maintain practices from previous year • Design a continuum of coursework for developing mathematically. Create additional modules to support within school professional development. Incorporate High Quality Instruction agreements. • Professional Learning Modules: Fluency in Math, 13 Rules that Expire: Building towards whole school agreement, Manipulatives, Child-Watching..., Number Talk and Whole Class Discussions, Geometry • Professional development supporting the trajectories for intensification focus instead of remediated focus	**Year 10: (July/August 2020-July 2021)** • K-5 Curriculum Guides (July 19) • Implement Common Report Alignment and Grading in 3rd, 4th and 5th grade • Pacing to include SBAC IAB's • **Year 5: Bridges/enVision** • Pacing for Balanced, MTYR, Incline, Capital Projects • Implement trajectories for "Intensified" focus instead of remediated focus. • Connections to non-math instructional materials (cross curricular student understanding mapping– ELA).	**Year 10: (July/August 2020-July 2021)** • Continue with Instructional Coaches (attempt to have 6 general funded positions to provide embedded math coaching in 5 schools) • Mathematics Content Leaders Team (extends from 2015 MSP Grant) • MCLT Recruit (fall—goal increase to 30 represented schools) and build content knowledge (spring) - Data & Revised Standards *sub out days for training • Implement Professional Learning Module design and vetting • Work with site-based coaches (embedded ISs and LSs) on literacy practices in mathematics (teaching through problem-solving…) and participate in Learning Labs

Elementary Mathematics Plan

Focus on deepening content by moving ***toward*** integrated conceptual/procedural instruction. Focus on moving pedagogical delivery ***from*** teacher directed ***to*** problem and/or student centered ***toward*** learner responsive.

Washoe County School District

This is a tentative outline for a more extensive plan aligned to district goals, policies, and implementation.

		Professional Development	Curriculum / Instructional Materials	Leadership Capacity
11	**Year 11: (July 2021-June 2022)** Mathematical Practices (Continued focus all 8 practices; and which practices best support NVACS content in the Lesson) **Content Focus: Data (possibility of revised NVAC standards)** **K-5**: Developing stronger understanding around the big idea of number through deeper explorations of measurement and data standards. NVACS: Measurement and **Data** (MD) building from Counting & Cardinality (pk &K only: CC), Number Base Ten, & Operations (NBT), and Algebraic Thinking (AO). Extend year 1 fluency and connect to MD work. Possible enactment of revisions to the NVACS (depends upon NV. Standards Council). **Claims 2 & 4, 3** **District Alignment focus:** Extension of work around Fluency & research based fluency practices to a focus on flexible reasoning and problem solving across mathematics domains. Continued focus on building classroom environment and classroom management considerations for teaching to the NVACS through a "teaching through problem solving" approach based upon planning to the big mathematical idea. 21st Century Competency continued focus: Collaboration, real-world problem solving and self-regulation; integrate knowledge construction and skilled communication. ***June 2021 Legislation Implications*** ***Note: Science Implementation for New Instructional Materials**	**Year 11: (July 2021-June 2022)** • Maintain practices from previous year • Professional Learning Modules: Fluency in Math, 13 Rules that Expire: Building towards whole school agreement, Manipulatives, Child-Watching…, Number Talk and Whole Class Discussions, Geometry, Measurement	**Year 11: (July 2021-June 2022)** • ***K-5 Curriculum Guides Revisions*** based on anticipated small NVACS changes. • Maintain, study and build support materials for common grading & reporting • **Year 6: Bridges/enVision** • ***Pacing document revisions*** • Implement trajectories for "Intensified" focus instead of remediated focus. • Connections to non-math instructional materials (cross curricular student understanding mapping– Science).	**Year 11: (July 2021-June 2022)** • Continue with Instructional Coaches (advocate for 12 general funded positions to provide embedded math coaching in title/non-title schools) • Mathematics Content Leaders Team (extends from 2015 MSP Grant). • MCLT Recruit (fall—goal increase to 40 represented schools) and build content knowledge (spring). *sub out days for training • Implement Professional Learning Module design and vetting • Work with site-based coaches (embedded ISs and LSs) on co-teaching model in mathematics
12	**Year 12: (July 2022-June 2023)** **Continue with Mathematical Practices:** **Content focus : Exploring the conceptual connections of the standards** **Claim 1: Concepts and Procedures (mapping the trajectory)** **Claims 2 & 4, 3** **Instructional focus: Learner Responsive (anticipate student responses, plan & adjust instruction accordingly)** Continued focus on building classroom environment and classroom management considerations for teaching to the NVACS through a "teaching through problem solving" approach based upon planning to the big mathematical idea. 21st Century Competency continued focus: Collaboration, real-world problem solving and self-regulation; integrate knowledge construction and skilled communication.	**Year 12: (July 2022-June 2023)** • Maintain practices from previous year • Professional Learning Modules: Fluency in Math, 13 Rules that Expire: Building towards whole school agreement, Manipulatives, Child-Watching…, Number Talk and Whole Class Discussions, Geometry, Measurement, Data • Design a continuum of coursework for developing mathematically. Create additional modules to support within school professional development. Incorporate High Quality Instruction agreements. (*Trajectory to begin one year prior to implementation of new instructional materials*).	**Year 12: (July 2022-June 2023)** • K-5 Curriculum Guides (July 22) • Maintain Pacing documents for all calendars. • Pacing to include SBAC IAB's • **Year 7: Bridges/enVision** • Pacing for Balanced, MTYR, Incline, Capital Projects • Continued implement trajectories for "Intensified" focus instead of remediated focus.	**Year 12: (July 2022-June 2023)** • Continue with Instructional Coaches (attempt to have 12 general funded positions to provide embedded math coaching in title/non-title schools) • Mathematics Content Leaders Team (extends from 2015 MSP Grant). • MCLT Recruit (fall—goal increase to 50 represented schools) and build content knowledge (spring). *sub out days for training • Implement Professional Learning Module design and vetting • Work with site-based coaches (embedded ISs and LSs) on co-teaching model in mathematics
13	**Year 13: (July 2023-June 2024)** **Continue with Mathematical Practices:** **Content focus: Exploring the conceptual connections of the standards** **Claim 4: Modeling/Data Analysis (mapping the trajectory)** **Claim 2: Problem Solving** **Instructional focus: Being responsive to the learner (anticipate student responses and plan instruction accordingly)** Continued focus on building classroom environment and classroom management considerations for teaching to the NVACS through a "teaching through problem solving" approach based upon planning to the big mathematical idea. 21st Century Competency continued focus: Collaboration, real-world problem solving and self-regulation; integrate knowledge construction and skilled communication. June 2023 Legislative Implications	**Year 13: (July 2023-June 2024)** • Maintain practices from previous year • Professional Learning Modules: Fluency in Math, 13 Rules that Expire: Building towards whole school agreement, Manipulatives, Child-Watching…, Number Talk and Whole Class Discussions, Geometry, Measurement, Data • Design a continuum of coursework for developing mathematically. Create additional modules to support within school professional development. Incorporate High Quality Instruction agreements.	**Year 13: (July 2023-June 2024)** • K-5 Curriculum Guides (July 19) • Implement Common Report Alignment and Grading in 3rd, 4th and 5th grade • Pacing to include SBAC IAB's • **Year 8: Bridges/enVision** • Pacing for Balanced, MTYR, Incline, Capital Projects • Continued implementation of trajectories for "Intensified" focus instead of remediated focus.	**Year 13: (July 2023-June 2024)** • Continue with Instructional Coaches (attempt to have 12 general funded positions to provide embedded math coaching in title/non-title schools) • Mathematics Content Leaders Team (extends from 2015 MSP Grant). • MCLT Recruit (fall—goal increase to 60 represented schools) and build content knowledge (spring) *sub out days for training • Implement Professional Learning Module design and vetting • Work with site-based coaches (embedded ISs and LSs) on co-teaching model in mathematics