

2022-23 DRK-12 New Awards

This list contains grants awarded winter 2022 – summer 2023.

| Award # | Project Title | PI | Institution |
|---------|--|--------------------------|--|
| 2300743 | A Professional Development Model for High School Teachers to Adapt Curricula Toward Students' Knowledges and Resources | Christina Krist | University of Illinois at Urbana-Champaign |
| 2247435 | A Team-based Model for Co-adapting Existing Middle School Science Curricula for Culturally and Linguistically Diverse Learners | Jie Zhang | University of Houston |
| 2300665 | Advancing Mentor Teachers' Practices Through Collaborative Pedagogical Reasoning (Collaborative Research: Ghouseini) | Hala Ghouseini | University of Wisconsin-Madison |
| 2300667 | Advancing Mentor Teachers' Practices Through Collaborative Pedagogical Reasoning (Collaborative Research: Remillard) | Janine Remillard | University of Pennsylvania |
| 2300666 | Advancing Mentor Teachers' Practices Through Collaborative Pedagogical Reasoning (Collaborative Research: Shaughnessy) | Meghan Shaughnessy | Boston University |
| 2300444 | Assessing the Efficacy and Implementation of a Technology-based Mathematics Intervention for Middle School Students | Jessica Mislevy | SRI International |
| 2300433 | Biomimicry as an Authentic Anchor: Giving Teachers the Tools to Adapt an Interdisciplinary Middle School Curriculum | Debra Bernstein | TERC |
| 2237986 | CAREER: Affirming Bilingual Children's Participation in Mathematics | José Martínez Hinestroza | Texas State University |
| 2239152 | CAREER: Creatively Reimagining Engagements with Data in Biology Learning Environments | Joshua Rosenberg | University of Tennessee, Knoxville |
| 2237739 | CAREER: Developing a Participatory Model for Elementary Science for Community Change | Terrance Burgess | Michigan State University |
| 2333959 | CAREER: Equity Focused Elementary Mathematics: Creating Virtual Mathematics Communities in Rural Georgia | Susan Cannon | University of Georgia |
| 2237902 | CAREER: Investigating Young Children's Opportunities to Learn Mathematics in Early Childhood Classrooms | Nicholas Johnson | San Diego State University |

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|---------|---|--------------------------|--|
| 2237053 | CAREER: Knowledge Exchange for Supporting Youth With or At Risk for Mathematics Difficulty | Jessica Rodrigues | University of Missouri |
| 2237151 | CAREER: Preparing Middle and High School Pre-service Teachers for Critical Mathematics Education | Zareen Aga | James Madison University |
| 2239316 | CAREER: Reframing Students' Graph Literacy with a Focus on Students' Thinking | Hwa Young Lee | Texas State University |
| 2247546 | Conversations Across Boundaries: Bringing PreK-2 Mathematics Experts Together | Paola Sztajn | North Carolina State University |
| 2300558 | Culturally Responsive Elementary Science Teaching | Deborah Hanuscin | Western Washington University |
| 2300233 | Developing an Early Mathematics Intervention for Children with Disabilities in the Home Learning Environment | Gena Nelson | University of Oregon |
| 2300404 | Developing Concept of Variable Among Students with Mathematics Difficulties in Preparation for Algebra 1 | Sarah Krowka | RG Research Group |
| 2247128 | Developing Mathematics Teachers Responsive Pedagogies for Linguistically Marginalized Students | Samantha Marshall Pham | North Carolina State University |
| 2300766 | Elementary Teacher Professional Learning of Equitable Engineering Pedagogies for Multilingual Students | Mary McVee | SUNY at Buffalo |
| 2300832 | Engaging Students in Discourse About Criteria for Judging Scientific Models (Collaborative Research: Danish) | Joshua Danish | Indiana University |
| 2300831 | Engaging Students in Discourse About Criteria for Judging Scientific Models (Collaborative Research: Duncan) | Ravit Golan Duncan | Rutgers University–New Brunswick |
| 2300689 | Engaging Teachers in Integrating Human-Centered Design for Geometry Problem-based Instruction | Gloriana Gonzalez Rivera | University of Illinois at Urbana-Champaign |
| 2300676 | Enhancing Early Childhood Educators' Reflective Practice and Content Knowledge to Increase Children's Capacity for Science Talk | Soo-Young Hong | University of Nebraska-Lincoln |

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| 2300785 | Enhancing STEM Success: A Multi-modal Investigating of Spatial Reasoning and Training in Undergraduate Education | Melissa Beck | Louisiana State University |
| 2301273 | Examining Elementary Mathematics Teachers' Behaviors and Learning with an Online Professional Development Platform (Collaborative Research: Cimpian) | Joseph Cimpian | New York University |
| 2301274 | Examining Elementary Mathematics Teachers' Behaviors and Learning with an Online Professional Development Platform (Collaborative Research: Moran) | Cheryl Moran | University of Chicago |
| 2301272 | Examining Elementary Mathematics Teachers' Behaviors and Learning with an Online Professional Development Platform (Collaborative Research: Perry) | Michelle Perry | University of Illinois at Urbana-Champaign |
| 2309657 | Examining Potential Causal Connections and Mechanisms Between Children's Block Play and Mathematics Learning | Sara Schmitt | University of Oregon |
| 2300544 | Examining Relationships Among Teacher Professional Learning and Associated Teacher and Student Outcomes in Math and Science: A Meta-analytic Approach to Mediation and Moderation | Ryan Williams | American Institutes for Research |
| 2301116 | Examining the Longitudinal Development of Pre-service Elementary Teachers' Equitable Noticing of Children's Mathematical Thinking (Collaborative Research: Jessup) | Naomi Jessup | Georgia State University |
| 2301115 | Examining the Longitudinal Development of Pre-service Elementary Teachers' Equitable Noticing of Children's Mathematical Thinking (Collaborative Research: Kalinec-Craig) | Crystal Kalinec-Craig | University of Texas at San Antonio |
| 2301114 | Examining the Longitudinal Development of Pre-service Elementary Teachers' Equitable Noticing of Children's Mathematical Thinking (Collaborative Research: Thomas) | Jonathan Thomas | University of Kentucky |
| 2300726 | Expanding Sixth-Grade Youth's Understanding of Engineering Through Critical Multilingual Journalism | Chelsea Andrews | Tufts University |

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| 2246989 | Exploring the Landscape of Rural Mathematics Education (Collaborative Research: Amador) | Julie Amador | University of Idaho |
| 2246988 | Exploring the Landscape of Rural Mathematics Education (Collaborative Research: Choppin) | Jeffrey Choppin | University of Rochester |
| 2246990 | Exploring the Landscape of Rural Mathematics Education (Collaborative Research: Heck) | Daniel Heck | Horizon Research Inc |
| 2319933 | Facilitating Teacher Learning with Video Clips of Instruction in Science | Miray Tekkumru Kisa | Rand Corporation |
| 2300619 | Hearing Each Other's Voices: Community Models for Professional Learning for Teachers, STEM Coaches, and Researchers (Collaborative Research: Fusco) | Judith Fusco | Digital Promise Global |
| 2300618 | Hearing Each Other's Voices: Community Models for Professional Learning for Teachers, STEM Coaches, and Researchers (Collaborative Research: Hmelo-Silver) | Cindy Hmelo-Silver | Indiana University |
| 2300555 | High School Climate Education for a Resilient Future | Jessica Bean | University of California, Berkeley |
| 2300532 | Improving Rural Middle Grades Mathematics Instruction Through a Statewide Teacher-Researcher Alliance | Joe Champion | Boise State University |
| 2300734 | Intelligent Science Stations: Developing Adaptive Mixed-Reality Technology to Enhance Inquiry-based STEM Learning in Schools | Nesra Yannier | Carnegie-Mellon University |
| 2300357 | Investigating Early Elementary Students' Computational Thinking Development in Integrated Mathematics-Coding Instruction | Jessica Shumway | Utah State University |
| 2300606 | Making the Building Blocks of Early Math Scalable, Accessible, and Viable for All Young Children and Their Teachers | Douglas Clements | University of Denver |
| 2247807 | Over-Engaged Parenting and Science Achievement in Early Childhood | Julia Leonard | Yale University |
| 2300927 | Support Partnership for New Bilingual Science and Engineering Teachers | Alberto Esquinca | San Diego State University |

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|---------|--|-------------------|--|
| 2300747 | Supporting Rural STEM Middle School Teachers and Career Counselors in the Development of Effective STEM Content and Career Development Experiences | Dodie Limberg | University of South Carolina |
| 2300490 | The Effects of Family Engagement on STEM Learning and Motivation: A Systematic Review and Meta-Analysis | Tyler Smith | University of Missouri |
| 2301248 | The Smart Playground: Computational Thinking Through Robotics in Early Childhood (Collaborative Research: Bers) | Marina Bers | Boston College |
| 2301247 | The Smart Playground: Computational Thinking Through Robotics in Early Childhood (Collaborative Research: Bustamante) | Andres Bustamante | University of California-Irvine |
| 2301249 | The Smart Playground: Computational Thinking Through Robotics in Early Childhood (Collaborative Research: Rogers) | Chris Rogers | Tufts University |
| 2300322 | Unpacking Computational Thinking for Elementary Teachers and Learners (Collaborative Research: Albert) | Jennifer Albert | Citadel Military College of South Carolina |
| 2300323 | Unpacking Computational Thinking for Elementary Teachers and Learners (Collaborative Research: Jocius) | Robin Jocius | University of Texas at Arlington |