

2017-18 DRK-12 New Awards

This list contains grants awarded fall 2017 – summer 2018.

| Award Number | Project Title | PI | Institution |
|--------------|--|-----------------------|---|
| 1812844 | A Practice-based Online Learning Environment for Scientific Inquiry with Digitized Museum Collections in Middle School Classrooms | Kirsten Butcher | University of Utah |
| 1813556 | Accelerating Higher Order Thinking and STEM Content Learning Among Students with Learning Disabilities | Jose Blackorby | CAST, Inc. |
| 1813777 | Advancing Methods and Synthesizing Research in STEM Education | Dean Gerdeman | American Institutes for Research in the Behavioral Sciences |
| 1813189 | An Integrated Approach to Early Elementary Earth and Space Science | Linda Shore | Astronomical Society of the Pacific |
| 1814194 | Building Middle School Students' Understanding of Heredity and Evolution | Louisa Stark | University of Utah |
| 1813048 | Building Sustainable Networked Instructional Leadership in Elementary Mathematics Through a University Partnership with a Large Urban District | Caroline Ebby | University of Pennsylvania |
| 1749294 | CAREER: Mechanisms Underlying the Relation Between Mathematical Language and Mathematical Knowledge | David Purpura | Purdue University |
| 1749324 | CAREER: Supporting Elementary Science Teaching and Learning by Integrating Uncertainty Into Classroom Science Investigations | Eve Manz | Boston University |
| 1813076 | Community for Advancing Discovery Research in Education (CADRE) | Catherine McCulloch | Education Development Center |
| 1827412 | Critical Issues in Mathematics Education 2018 | David Eisenbud | Mathematical Sciences Research Institute |
| 1812869 | Design and Development of a K-12 STEM Observation Protocol (Collaborative Research: Dare) | Emily Dare | Michigan Technological University |
| 1812794 | Design and Development of a K-12 STEM Observation Protocol (Collaborative Research: Ring-Whalen) | Elizabeth Ring-Whalen | St. Catherine University |

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| 1813342 | Design and Development of a K-12 STEM Observation Protocol (Collaborative Research: Roehrig) | Gillian Roehrig | University of Minnesota Twin Cities |
| 1814033 | Design and Development of Transmedia Narrative-based Curricula to Engage Children in Scientific Thinking and Engineering Design (Collaborative Research: Ellis) | Glenn Ellis | Smith College |
| 1813572 | Design and Development of Transmedia Narrative-based Curricula to Engage Children in Scientific Thinking and Engineering Design (Collaborative Research: McGinnis-Cavanaugh) | Beth McGinnis-Cavanaugh | Springfield Technical Community College |
| 1822029 | Determining Teachers' Baseline Practice and Alignment Prior to a Systemic Curriculum Change | Jonathan Singer | University of Maryland, Baltimore County |
| 1822346 | Developing a Culturally Responsive Computing Instrument for Underrepresented Students | Kimberly Scott | Arizona State University |
| 1813802 | Developing a Generalized Storyline that Organizes the Supports for Evidence-based Modeling of Long-Term Impacts of Disturbances in Complex Systems | Steven McGee | The Learning Partnership |
| 1814275 | Developing and Validating Assessments to Measure and Build Elementary Teachers' Content Knowledge for Teaching about Matter and Its Interactions within Teacher Education Settings (Collaborative Research: Hanuscin) | Deborah Hanuscin | Western Washington University |
| 1813254 | Developing and Validating Assessments to Measure and Build Elementary Teachers' Content Knowledge for Teaching about Matter and Its Interactions within Teacher Education Settings (Collaborative Research: Mikeska) | Jamie Mikeska | Educational Testing Service |
| 1813903 | Developing Preservice Teachers' Capacity to Teach Students with Learning Disabilities in Algebra I | Casey Hord | University of Cincinnati |
| 1813008 | Development and Validation of a Mobile, Web-based Coaching Tool to Improve PreK Classroom Practices to Enhance Learning | Caroline Christopher | Vanderbilt University |

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| 1814083 | Engaging High School Students in Computer Science with Co-Creative Learning Companions (Collaborative Research: Magerko) | Brian Magerko | Georgia Tech Research Corporation |
| 1814258 | Enhancing Teacher and Student Understanding of Engineering in K-5 Bilingual Programs | Idalis Villanueva | Utah State University |
| 1823085 | Evaluation of Disaster-Related Science Lesson Plans to Promote Learning Continuity After Hurricane Maria | Giovanna Guerrero-Medina | Yale University |
| 1834733 | Exploring the Relationship Between High School Mathematics and Bioscience, Standardized Testing and College Performance in Biotechnology-Related Fields | Laurence Bray | George Mason University |
| 1814263 | Extending and Investigating the Impact of the High School Model-based Educational Resource (Collaborative Research: Passmore) | Cynthia Passmore | University of California, Davis |
| 1813538 | Extending and Investigating the Impact of the High School Model-based Educational Resource (Collaborative Research: Wilson) | Christopher Wilson | BSCS |
| 1812362 | GeoHazard: Modeling Natural Hazards and Assessing Risks | Amy Pallant | Concord Consortium |
| 1814220 | Highly Adaptive Science Simulations for Accessible STEM Education | Emily Moore | University of Colorado Boulder |
| 1813938 | Improving Multi-Dimensional Assessment and Instruction: Building and Sustaining Elementary Science Teachers' Capacity through Learning Communities (Collaborative Research: Lehman) | Elizabeth Lehman | University of Chicago |
| 1813737 | Improving Multi-Dimensional Assessment and Instruction: Building and Sustaining Elementary Science Teachers' Capacity through Learning Communities (Collaborative Research: Pellegrino) | James Pellegrino | University of Illinois at Chicago |
| 1813280 | Integrating Science with Mathematics and Engineering: Linking Home and School Learning for All Young Learners | Ximena Dominguez | Digital Promise Global |
| 1813439 | Investigating Impact of Different Types of Professional Development on What Aspects Mathematics Teachers Take Up and Use in Their Classroom | Karen Koellner | CUNY Hunter College |

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| 1811452 | LabVenture - Revealing Systemic Impacts of a 12-Year Statewide Science Field Trip Program | Leigh Peake | Gulf of Maine Research Institute |
| 1841075 | Methods for Assessing Replication | Larry Hedges | Northwestern University |
| 1812576 | Moving Beyond Pedagogy: Developing Elementary Teachers' Adaptive Expertise in Using the Epistemic Complexity of Science | Brian Hand | University of Iowa |
| 1813937 | Professional Development for K-12 Science Teachers in Linguistically Diverse Classrooms | Minjung Ryu | Purdue University |
| 1812738 | Professional Development Supports for Teaching Bioinformatics through Mobile Learning | Susan Yoon | University of Pennsylvania |
| 1812823 | Promoting Engineering Problem Framing Skill-Development in High School Science and Engineering Courses | J. Blake Hylton | Ohio Northern University |
| 1812887 | Prospective Elementary Teachers Making for Mathematical Learning | Steven Greenstein | Montclair State University |
| 1813012 | Science Communities of Practice Partnership | Kathryn Hayes | California State University, East Bay |
| 1812888 | Science, Technology, Engineering and Mathematics Teaching in Rural Areas Using Cultural Knowledge Systems | Lynda McGilvary | University of Alaska Fairbanks |
| 1813956 | Strengthening Data Literacy Across the Curriculum | Josephine Louie | Education Development Center |
| 1813713 | Supporting Teachers in Responsive Instruction for Developing Expertise in Science (Collaborative Research: Linn) | Marcia Linn | University of California, Berkeley |
| 1812660 | Supporting Teachers in Responsive Instruction for Developing Expertise in Science (Collaborative Research: Riordan) | Brian Riordan | Educational Testing Service |
| 1813086 | Teacher Professional Learning to Support Student Motivational Competencies During Science Instruction (Collaborative Research: Harris) | Christopher Harris | SRI International |

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| 1812976 | Teacher Professional Learning to Support Student Motivational Competencies During Science Instruction (Collaborative Research: Marchand) | Gwen Marchand | University of Nevada, Las Vegas |
| 1813047 | Teacher Professional Learning to Support Student Motivational Competencies During Science Instruction (Collaborative Research: Linnenbrink-Garcia) | Lisa Linnenbrink-Garcia | Michigan State University |
| 1814356 | Testing the Efficacy of the Strategic Observation and Reflection (SOAR) for Math Professional Learning Program | Susan O'hara | University of California, Davis |
| 1814077 | The Spectrum Laboratory: Towards Authentic Inquiry for All | Mary Dussault | Smithsonian Institution Astrophysical Observatory |
| 1813127 | Translating a Video-based Model of Teacher Professional Development to an Online Environment | Susan Kowalski | BSCS |
| 1813476 | Understanding the Role of Simulations in K-12 Science and Mathematics Teacher Education | Jamie Mikeska | Educational Testing Service |
| 1813760 | Usable Measures of Teacher Understanding: Exploring Diagnostic Models and Topic Analysis as Tools for Assessing Proportional Reasoning for Teaching | Yasemin Copur-Gencturk | University of Southern California |
| 1814114 | Using Technology to Capture Classroom Interactions: The Design, Validation, and Dissemination of a Formative Assessment of Instruction Tool for Diverse K-8 Mathematics Classrooms | Kathleen Melhuish | Texas State University |