2020-21 DRK–12 New Awards

This list contains grants awarded fall 2020 – summer 2021.
NEW! *Denotes awards made since CADRE's August 2021 newsletter.*

Award Number	Project Title	PI	Institution
2128789	A Researcher-Practitioner Partnership to Assess the Impact of COVID-19 Recession on NGSS Implementation	Niu Gao	Public Policy Institute of California
2101526	Accessible Computational Thinking in Elementary Science Classes within and across Culturally and Linguistically Diverse Contexts (Collaborative Research: Ketelhut)	Diane Ketelhut	University of Maryland, College Park
2101039	Accessible Computational Thinking in Elementary Science Classes within and across Culturally and Linguistically Diverse Contexts (Collaborative Research: Nelson)	Brian Nelson	Arizona State University
2138854	AI-based Assessment in STEM Education Conference	Xiaoming Zhai	University of Georgia
2101169	Bilingualtek: An Integrated Science-Language Approach for Latinx Preschoolers	Lucia Mendez	University of North Carolina at Greensboro
2101049	Boosting Data Science Teaching and Learning in STEM	Kirsten Daehler	WestEd
2101308	Building a Flexible and Comprehensive Approach to Supporting Student Development of Whole Number Understanding	Benjamin Clarke	University of Oregon
2101310	Building Insights through Observation: Researching Arts-based Methods for Teaching and Learning with Data	Kathryn Semmens	Nurture Nature Center
2040784	Building Networks and Enhancing Diversity in the K-12 STEM Teaching Workforce	Carol O'Donnell	Smithsonian Institution
2046856	CAREER: Black and Latinx Parents Leading chANge and Advancing Racial (PLANAR) Justice in Elementary Mathematics	Frances Harper	University of Tennessee, Knoxville
2042975	CAREER: Partnering with Teachers and Students to Engage in Mathematical Inquiry about Relevant Social Issues	Kari Kokka	University of Pittsburgh

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2100833	Co-Designing for Statewide Alignment of a Vision for High Quality Mathematics Instruction (Collaborative Research: Mawhinney)	Katherine Mawhinney	Appalachian State University
2100947	Co-Designing for Statewide Alignment of a Vision for High Quality Mathematics Instruction (Collaborative Research: McCulloch)	Allison McCulloch	University of North Carolina at Charlotte
2100895	Co-Designing for Statewide Alignment of a Vision for High Quality Mathematics Instruction (Collaborative Research: Schwartz)	Catherine Schwartz	East Carolina University
2100903	Co-Designing for Statewide Alignment of a Vision for High Quality Mathematics Instruction (Collaborative Research: Wilson)	Peter Wilson	University of North Carolina at Greensboro
2100823	Community for Advancing Discovery Research in Education (CADRE): Expanding the Reach and Impact of Innovations in STEM Education	Catherine McCulloch	Education Development Center
2101456	Connecting Elementary Mathematics Teaching to Real-World Issues (Collaborative Research: Felton)	Mathew Felton	Ohio University
2101463	Connecting Elementary Mathematics Teaching to Real-World Issues (Collaborative Research: Thanheiser)	Eva Thanheiser	Portland State University
2101217	COVID Connects Us: Nurturing Novice Teachers' Justice Science Teaching Identities	April Luehmann	University of Rochester
2101493	Crowd-Sourced Online Nexus for Developing Assessments of Middle-School Physical Science Disciplinary Core Ideas	Philip Sadler	Harvard University
2101277	Culturally Responsive, Affective-Focused Teaching of Science and Mathematics	Julie Brown	University of Florida
2101413	DataX: Exploring Justice-Oriented Data Science with Secondary School Students	Bodong Chen	University of Minnesota, Twin Cities
2100988	Developing and Evaluating Assessments of Problem-Solving in Computer Adaptive Testing Environments (Collaborative Research: Bostic)	Jonathan Bostic	Bowling Green State University
2101026	Developing and Evaluating Assessments of Problem-Solving in Computer Adaptive Testing Environments (Collaborative Research: Sondergeld)	Toni Sondergeld	Drexel University

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2101667	Developing and Researching K-12 Teacher Leaders Enacting Anti-bias Mathematics Education (Collaborative Research: Elliott)	Rebekah Elliott	Oregon State University
2101668	Developing and Researching K-12 Teacher Leaders Enacting Anti-bias Mathematics Education (Collaborative Research: Heaton)	Ruth Heaton	Teachers Development Group
2101665	Developing and Researching K-12 Teacher Leaders Enacting Anti-bias Mathematics Education (Collaborative Research: Thanheiser)	Eva Thanheiser	Portland State University
2101666	Developing and Researching K-12 Teacher Leaders Enacting Anti-bias Mathematics Education (Collaborative Research: Yeh)	Cathery Yeh	Chapman University
2101383	Developing the Pedagogical Skills and Science Expertise of Teachers in Underserved Rural Settings	Rebecca Sansom	Brigham Young University
2101554	Dimensions of Success: Transforming Quality Assessment in Middle School Science and Engineering	Gil Noam	McLean Hospital
2101425	Doing the Math with Paraeducators: Enhancing and Expanding and Sustaining a Professional Development Model in PreK to Grade 3 Math Classrooms	Judy Storeygard	TERC
2101163	Education and Experience: Do Teacher Qualifications in Career-Focused STEM Courses Make a Difference?	Michael Gottfried	University of Pennsylvania
2100822	Empowering Teachers to See and Support Student Use of Crosscutting Concepts in the Life Sciences	Chad Gotch	Washington State University
2040747	Enhancing Science Education through Virtual Reality: A Conference to Design Simulations that Enhance the Clinical Preparation of Secondary Science Teachers	Jacqueline Rodriguez	American Association of Colleges for Teacher Education
2101162	Evidence Quality and Reach Hub for the DRK-12 Community	Melissa Rasberry	American Institutes for Research in the Behavioral Sciences
2100419	Exploratory Evidence on the Factors that Relate to Elementary School Science Learning Gains Among English Language Learners	Chris Curran	University of Florida

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2101343	Facilitating Formative Feedback: Using Simulations to Impact the Capability of Novice Mathematics Teachers	Meghan Shaughnessy	Boston University
2101615	Fostering Computational Thinking through Neural Engineering Activities in High School Biology Classes	Ido Davidesco	University of Connecticut
2000388	Improving Evaluations of STEM Programs: An Empirical Investigation of Key Design Parameters	Jessaca Spybrook	Western Michigan University
2100617	Improving Professional Development in Mathematics by Understanding the Mechanisms that Translate Teacher Learning into Student Learning	James Hiebert	University of Delaware
2131762	Investigating Barriers and Strategies to Increase HBCU Participation in STEM Education Research	Cynthia Trawick	Morehouse College
2101393	Investigating the Role of Collaboration on the Development of Student Ideas Using a Learning Progression for the Function Concept	Edith Aurora Graf	Educational Testing Service
2101083	Learning about Viral Epidemics through Engagement with Different Types of Models	Troy Sadler	University of North Carolina at Chapel Hill
2101235	Learning by Evaluating: Engaging Students in Evaluation as a Pedagogical Strategy to Improve Design Thinking	Nathan Mentzer	Purdue University
2115603	Leveraging the Power of Reflection and Visual Representation in Middle-Schoolers' Learning During and After an Informal Science Experience (Collaborative Research: Dickes)	Amanda Dickes	Gulf of Maine Research Institute
2115610	Leveraging the Power of Reflection and Visual Representation in Middle-Schoolers' Learning During and After an Informal Science Experience (Collaborative Research: Haden)	Catherine Haden	Loyola University of Chicago
2115905	Leveraging the Power of Reflection and Visual Representation in Middle-Schoolers' Learning During and After an Informal Science Experience (Collaborative Research: Uttal)	David Uttal	Northwestern University

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2100879	Managing Uncertainty for Productive Struggle: Exploring Teacher Development for Managing Students' Epistemic Uncertainty as a Pedagogical Resource in Project-based Learning	Ying-Chih Chen	Arizona State University
2101341	Mapping, Clarifying, and Communicating Key Ideas about Collaborative Learning	Jeremy Roschelle	Digital Promise Global
2101441	Measuring the Effectiveness of Middle School STEM Innovation and Engineering Design Curricula	Meltem Alemdar	Georgia Institute of Technology
2100990	MothEd - Authentic Science for Elementary and Middle School Students	Peter White	Michigan State University
2101508	Practice-Driven Professional Development for Algebra Teachers	Zandra de Araujo	University of Missouri-Columbia
2101198	Precipitating Change in Alaskan and Hawaiian Schools: Modeling Mitigation of Coastal Erosion	Carolyn Staudt	Concord Consortium
2100864	Reducing Racially Biased Beliefs by Fostering a Complex Understanding of Human Genetics Research in High School Biology Students (Collaborative Research: Donovan)	Brian Donovan	BSCS Science Learning
2100876	Reducing Racially Biased Beliefs by Fostering a Complex Understanding of Human Genetics Research in High School Biology Students (Collaborative Research: Duncan)	Ravit Golan Duncan	Rutgers University
2100959	Reducing Racially Biased Beliefs by Fostering a Complex Understanding of Human Genetics Research in High-School Biology Students (Collaborative Research: Wedow)	Robbee Wedow	Broad Institute, Inc.
2100808	Supporting High School Students and Teachers with a Digital, Localizable, Climate Education Experience	Lindsey Mohan	BSCS Science Learning
2100964	Supporting Instructional Decision Making: The Potential of Automatically Scored Three-Dimensional Assessment System (Collaborative Research: Krajcik)	Joseph Krajcik	Michigan State University

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2101112	Supporting Instructional Decision Making: The Potential of Automatically Scored Three-Dimensional Assessment System (Collaborative Research: Weiser)	Gary Weiser	WestEd
2101166	Supporting Instructional Decision Making: The Potential of Automatically Scored Three-Dimensional Assessment System (Collaborative Research: Yin)	Yue Yin	University of Illinois at Chicago
2101104	Supporting Instructional Decision Making: The Potential of Automatically Scored Three-Dimensional Assessment System (Collaborative Research: Zhai)	Xiaoming Zhai	University of Georgia
2101356	Supporting Playful Learning in Elementary Mathematics Classrooms	Melissa Gresalfi	Vanderbilt University
2101384	Supporting Teacher Customizations of Curriculum Materials for Equitable Student Sensemaking in Secondary Science (Collaborative Researcher: McNeill)	Katherine McNeill	Boston College
2101377	Supporting Teacher Customizations of Curriculum Materials for Equitable Student Sensemaking in Secondary Science (Collaborative Researcher: Reiser)	Brian Reiser	Northwestern University
2101547	Supporting Teacher Understanding of Emergent Computational Thinking in Early Elementary Students	Katherine McMillan	New York Hall of Science
2100961	**NEW!** Supporting Teachers to Develop Equitable Mathematics Instruction Through Rubric-Based Coaching (Collaborative Research: Hill)	Heather Hill	Harvard University
2100793	**NEW!** Supporting Teachers to Develop Equitable Mathematics Instruction Through Rubric-based Coaching (Collaborative Research: Litke)	Erica Litke	University of Delaware
2100830	**NEW!** Supporting Teachers to Develop Equitable Mathematics Instruction Through Rubric-based Coaching (Collaborative Research: Wilson)	Jonee Wilson	North Carolina State University
2101552	Supporting Teachers to Teach Mathematics through Problem Posing	Jinfa Cai	University of Delaware
2101590	Supporting the Implementation of Scientific Modeling Instruction in High School Chemistry and Biology in Rural Schools	Scott Ragan	North Carolina State University

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2101532	Teacher Collaborative for Culturally Relevant Mathematics and Science Curricula	Craig Willey	Indiana University
2100784	Teaching Amidst Uncertainty: Developing Mathematics Teachers' Groupwork Monitoring Practices	Ilana Horn	Vanderbilt University
2120194	The Impact of COVID on American Education in 2021: Continued Evidence from the Understanding America Study	Anna Saavedra	University of Southern California
2101287	Understanding STEM Teaching through Integrated Contexts in Everyday Life (Collaborative Research: Johnson)	Joseph Johnson	Mercyhurst University
2101395	Understanding STEM Teaching through Integrated Contexts in Everyday Life (Collaborative Research: Macalalag)	Augusto Macalalag	Arcadia University
2101144	Understanding STEM Teaching through Integrated Contexts in Everyday Life (Collaborative Research: Marco-Bujosa)	Lisa Marco-Bujosa	Villanova University
2101324	Understanding STEM Teaching through Integrated Contexts in Everyday Life (Collaborative Research: Richardson)	Greer Richardson	La Salle University
2101669	Using Natural Language Processing to Inform Science Instruction (Collaborative Research: Linn)	Marcia Linn	University of California, Berkeley
2101670	Using Natural Language Processing to Inform Science Instruction (Collaborative Research: Riordan)	Brian Riordan	Educational Testing Service
2133577	Workshop for Writing Grants for Early Career Scholars in STEM and Learning Sciences Focused on Racial Equity	Christopher Wright	Drexel University