# **NC STATE** Friday Institute for Educational Innovation



# The Reedy Creek Magnet Middle School Center for Digital Sciences/Friday Institute for Educational Innovation Research Practice Partnership

A Brief History



- Reedy Creek officially becomes Reedy Creek Magnet Middle School Center for Digital Sciences (RCMMS).
- The Friday Institute for Educational Innovation (FI) provides repeated and varied professional development (PD) sessions to RCMMS staff on computational thinking (CT). The PD helps teachers learn the language, theory and thought processes of CT with a focus on decomposition, pattern recognition, algorithms and abstraction. Activities include after-school and half-day workshops for the entire faculty, as well as subject area-specific consultation and planning.
- FI researchers work with Bits and Bytes classes to bring CT-focused, game-based learning into the curriculum using the ENGAGE game.
- FI researchers work with science teachers to incorporate coding and CT projects such as computer simulations and data tracking into science classes at each grade level. This includes one-on-one PD sessions with grade level science PLTs along with in-class interaction using a faded model of support. Work continues today.
- FI staff join RCMMS in Hour of Code activities and magnet theme showcase events.

#### 2017-2018

- FI researchers collaborate with 6th grade math teachers and the RCMMS art teacher to introduce CT activities in classes and during Discovery.
- FI staff join RCMMS for magnet theme showcase and STEM night events.
- FI and RCMMS form a formal Research Practice Partnership (RPP) and join the National Network of Education Research Practice Partnerships (NNERPP), a professional learning community that provides resources to enhance the productivity of RPPs in education. We jointly attended the 2018 NNERPP annual conference.

### Definition of a partnership

A research practice partnership (RPP) is a long-term, mutually beneficial and formalized collaboration between education researchers and practitioners. RPPs engage both researchers and practitioners in tackling problems of practice.

#### Our partnership's mission

Together, Reedy Creek and the Friday Institute are partnering to develop a culture of computational thinking within Reedy Creek's digital sciences magnet program. Computational thinking is a new and unfamiliar concept to most; however, it's a necessary skillset in virtually every career sector.



## 2018-2019

- RCMMS forms a Digital Sciences team that includes members of the FI and works with the school's Media and Technology Advisory Committee (MTAC) team.
- · Eighth grade science teachers present with FI about their collaboration at the NC Science Teachers Association (NCSTA) conference.
- Reedy Creek and FI officially partner under the CS4ALL grant entitled Broadening Participation with the STEM Ecosystem: Developing a Scalable Model using an RPP Approach. RCMMS and FI meet regularly to discuss our ongoing collaboration.
- Reedy Creek and FI jointly attend the 2019 NNERPP annual conference.

### 2019-2020

- Groups of RCMMS teachers take part in summer PD sessions offered by FI and focused on CS and CT subject area lesson development.
- RCMMS and FI will work together to offer opportunities for parent outreach, such as Family Code Nights.
- FI will continue to join RCMMS at magnet, community and partnership events.
- FI will continue to work in classrooms and assist with professional learning at RCMMS.



## **Friday Institute Partners**



Dr. Eric Wiebe Professor



Associate Professor

**Dr. Tiffanv Barnes** 

Dr. Veronica

Catete

Research

Scientist

**Madeline Hinckle** Graduate Research Assistant



**Dr. Callie Womble** Edwards **Research Associate** 



Dr. Dave Frve Senior Director for Computer Science Initiatives

## **Reedy Creek Collaborators**



**Christine Sachs** 

Magnet

Coordinator

H. Trent Evans Principal

#### 2020-21 Teacher Leader Core

Indira Bhandari, 7th Science Stephanie Bunnell, 6th Social Studies Maggie Daniel, 7th Science Lucy Dioguardi, 8th Science Joan Dorsey, 7th Administrator

Jill Gregory, 8th Math Rochelle Guilford, Instructional Facilitator Erin McDermott. 6th ELA Kelly McIlhargey, Reading Intervention Elise Thrash, Library Media Coordinator