



APPALACHIAN STATE UNIVERSITY

REICH COLLEGE OF EDUCATION  
**Mathematics and Science  
Education Center**

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**JULY 2024 STEM AMBASSADOR NEWSLETTER**

**FUNDING FOR FALL**

IF YOU ARE THINKING ABOUT INNOVATIVE PROJECTS FOR YOUR CLASSROOM FOR THE FALL, YOU MAY WANT TO CONSIDER APPLYING FOR A GRANT TO FUND YOUR IDEA. THE FOLLOWING OPTIONS ARE AVAILABLE FOR NORTH CAROLINA TEACHERS:

1) **NC BRIGHT IDEAS**-FOCUSES ON EFFORTS TO IMPROVE CLASSROOM INSTRUCTION AND SUPPORT INNOVATIVE TEACHING METHODS IN ANY CONTENT AREA. GRANT AMOUNT DEPENDS ON WHICH COUNTY YOU LIVE IN, BUT IS AROUND \$1,000. EARLY-BIRD DEADLINE: AUGUST 15TH. FINAL DEADLINE: SEPTEMBER 15TH. FOR MORE INFORMATION VISIT:

[HTTPS://WWW.NCELECTRICCOOPERATIVES.COM/COMMUNITY/BRIGHT-IDEAS/](https://www.ncelectriccooperatives.com/community/bright-ideas/)

2) **YOUTH LEARNING AS CITIZEN ENVIRONMENTAL SCIENTISTS**- OFFERS GRANTS TO EQUIP THE RISING GENERATION (K-12) WITH SCIENTIFIC THINKING ABILITY. PROVIDES UP TO \$1,500 TO SUPPORT STUDENTS ENGAGING IN ENVIRONMENTAL RESEARCH. DEADLINE: JULY 31ST. FOR MORE INFORMATION VISIT:

[HTTPS://WWW.YLACES.ORG/GRANTS-AND-AWARDS](https://www.ylaces.org/grants-and-awards)



## SUPPORT FOR NEW TEACHERS IN STEM DISCIPLINES

PLEASE SHARE WITH ANYONE WHO MIGHT BE INTERESTED

THE NORTH CAROLINA SCHOOL OF SCIENCE AND MATH-EXTENDED LEARNING DEPARTMENT IS EXCITED TO ANNOUNCE THE 2ND YEAR OF "LAUNCH," A COHORT DESIGNED SPECIFICALLY FOR NEW STEM TEACHERS. THIS PROGRAM IS TAILORED FOR NORTH CAROLINA TEACHERS IN GRADES 5-12 WHO TEACH MATH, SCIENCE, TECHNOLOGY, ENGINEERING, CTE, OR STEM, AND HAVE FIVE YEARS OR LESS EXPERIENCE IN THEIR FIELD. IT IS OPEN TO TRADITIONAL BEGINNING TEACHERS (BTS), LATERAL ENTRY TEACHERS, OR THOSE WHO HAVE TRANSITIONED INTO NEW CONTENT AREAS. THE COHORT WILL MEET SIX TIMES THROUGHOUT THE YEAR, WITH THREE VIRTUAL MEETINGS AND THREE IN-PERSON MEETINGS AT NCSSM-MORGANTON, ALL SCHEDULED AFTER SCHOOL AT 5 PM. THIS YEAR'S SESSIONS WILL FOCUS ON AI IN EDUCATION WHILE APPLYING CONTENT STANDARDS, INNOVATIVE PEDAGOGY, AND REAL WAYS TO APPLY THESE PRACTICES TO YOUR CLASSROOM.

ADDITIONALLY, PARTICIPANTS WILL HAVE THE OPPORTUNITY TO LEARN FROM EXPERT GUESTS.

PARTICIPANTS WILL RECEIVE 10 HOURS OF PROFESSIONAL DEVELOPMENT. PARTICIPATION IN THE PROGRAM IS FREE FOR SELECTED TEACHERS.

INTERESTED TEACHERS MUST APPLY, AND THOSE SELECTED WILL BE NOTIFIED ACCORDINGLY. FOR MORE INFORMATION OR TO APPLY, PLEASE VISIT OUR WEBSITE OR CONTACT US DIRECTLY. APPLICATIONS CLOSE AUGUST 15 AND NOTIFICATIONS WILL BE NO LATER THAN AUGUST 31. PLEASE CONTACT MORGAN PITTMAN AT [MORGAN.PITTMAN@NCSSM.EDU](mailto:MORGAN.PITTMAN@NCSSM.EDU) WITH ADDITIONAL QUESTIONS.

HERE IS A LINK TO A VIDEO ABOUT THE PROGRAM:  
[HTTPS://DRIVE.GOOGLE.COM/FILE/D/1MXXJFE2ESU5XOQWIIGS2KYZ3QXJXKTJJ/VIEW?USP=DRIVE\\_LINK](https://drive.google.com/file/d/1MXXJFE2ESU5XOQWIIGS2KYZ3QXJXKTJJ/view?usp=drive_link)

TO REGISTER, PLEASE VISIT:  
[HTTPS://BIT.LY/3XSPY2O](https://bit.ly/3XSPY2O)



## MINDSET MATTERS WORKSHOP IN SYLVA , NC

RANDI NEFF FROM THE SMOKY MOUNTAIN STEM COLLABORATIVE SHARED THE FOLLOWING ANNOUNCEMENT ABOUT THE MINDSET MATTERS WORKSHOP THAT WILL BE OCCURRING ON JULY 24-25. THE WORKSHOP IS FREE, AND PARTICIPANTS WILL RECEIVE A \$100 STIPEND FOR ATTENDING. SHE CAN BE REACHED AT R-NEFF@SOUTHWESTERNCC.EDU IF YOU HAVE ADDITIONAL QUESTIONS.

### HER ANNOUNCEMENT:

GREETINGS - IF YOU ARE AN EDUCATOR, REGARDLESS OF GRADE LEVEL OR TYPE OF LEARNING ENVIRONMENT, YOU ARE INVITED TO ATTEND AN IN-PERSON WORKSHOP AT SOUTHWESTERN COMMUNITY COLLEGE IN SYLVA, NC ON JULY 24TH & 25TH. MINDSET MATTERS IS DESIGNED FOR TEACHERS TO EMPOWER LEARNERS BY EXPOSING THEM TO ENTREPRENEURIAL THINKING WHILE IMMERSING THEM IN ENTREPRENEURIAL EXPERIENCES THAT WILL ENABLE THEM TO DEVELOP CREATIVITY AND CRITICAL THINKING, EFFECTIVE PROBLEM SOLVING, COMMUNICATION, TEAMWORK AND OTHER ENTREPRENEURIAL SKILLS – SKILLS THAT WILL ENABLE THEM TO SUCCEED REGARDLESS OF THEIR CHOSEN PATH.

THE AGENDA IS ATTACHED - HERE IS THE REGISTRATION FORM:

[HTTPS://FORMS.GLE/SFY3ZVWCGVMZEKZS8](https://forms.gle/SFY3ZVWCGVMZEKZS8)



## BRUSHING UP ON YOUR AI KNOWLEDGE

IN 2022-2023, THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY AND I2LEARNING PARTNERED TO DEVELOP A CURRICULUM ABOUT AI LITERACY FOR TEACHERS OF STUDENTS AGED 5-18. THE CURRICULUM INCLUDES 12 MODULES RELATED TO TOPICS SUCH AS “WHAT CAN AI DO?” AND “TEACHABLE MACHINES.” THESE MODULES ARE DESIGNED FOR ANY CONTENT AREA. RECENTLY, THE SCIENCE TEACHER PRACTITIONER JOURNAL INCLUDED A FREE ARTICLE ABOUT THE MODULES AND TEACHERS’ EXPERIENCE IN USING THEM. IF YOU ARE INTERESTED IN LEARNING MORE, YOU CAN CLICK ON THE ARTICLE LINKED [HERE](#), OR VISIT THE DAY OF AI [WEBSITE](#) TO ACCESS THE CURRICULUM MATERIALS.

## SUMMER READING FOR TEACHERS

YOU MAY BE TAKING A BREAK, THINKING ABOUT THE UPCOMING SCHOOL YEAR, OR A LITTLE OF BOTH. IF YOU ARE LOOKING FOR BOOKS TO HELP SPUR YOU TO NEW INNOVATIONS IN YOUR TEACHING THIS FALL, WE HAVE A COUPLE OF RECOMMENDATIONS FOR YOU:

- 1) **FOR SCIENCE TEACHERS:** AMBITIOUS SCIENCE TEACHING (2023) BY MARK WINDSCHITL, JESSICA THOMPSON, AND MELISSA BRAATEN. I AM READING THIS ONE CURRENTLY, AND AM REALLY ENJOYING IT. THE BOOK IS ORGANIZED AROUND FOUR KEY IDEAS TO SUPPORT AMBITIOUS SCIENCE TEACHING IN K-16 CLASSROOMS. THE AUTHORS EXPLAIN EACH OF THE BIG IDEAS AND PROVIDE CLASSROOM EXAMPLES FOR WHAT THE IDEAS MIGHT LOOK LIKE AT DIFFERENT GRADE LEVELS. IT HAS ME THINKING ABOUT HOW TO IMPROVE MY USE OF QUESTIONING DURING AND AFTER INVESTIGATIONS, AND HOW TO INCORPORATE THE USE OF MODELS IN A MORE MEANINGFUL WAY IN MY OWN SCIENCE INSTRUCTION.
- 2) **FOR MATH TEACHERS:** THE LIVING TREE OF MATHEMATICS (2021) BY VERA SARINA. THIS BOOK IS RECOMMENDED BY THE NATIONAL COUNCIL OF TEACHERS OF MATHEMATICS. THIS BOOK TAKES MATH CONTENT IDEAS THAT STUDENTS STRUGGLE WITH AND SHOWS ITS ORIGIN IN HISTORY. THE AUTHOR ALSO SHOWS DIFFERENT METHODS AND REPRESENTATIONS THAT ARE USED IN DIFFERENT COUNTRIES TO HELP STUDENTS UNDERSTAND THOSE IDEAS.
- 3) **FOR STEM TEACHERS:** STEM BY DESIGN (2016) BY ANNE JOLLY. I HAVE NOT READ THIS BOOK YET, BUT IT WAS STRONGLY RECOMMENDED AT A RECENT PROFESSIONAL DEVELOPMENT THAT I ATTENDED. IT IS WRITTEN AS AN INTRODUCTORY BOOK FOR THOSE LOOKING TO INCORPORATE MORE STEM ACTIVITIES INTO THEIR TEACHING. WHILE IT IS GEARED TOWARDS TEACHERS IN GRADES 4-8, THE PRINCIPLES CAN BE APPLIED IN ADDITIONAL GRADE LEVELS AS WELL.



## NEW SCIENCE STANDARDS UPDATES

NC HAS ADOPTED NEW SCIENCE STANDARDS WHICH WILL BE IMPLEMENTED BEGINNING IN FALL 2024. IN EARLY JUNE, DPI OPENED A RESOURCE HUB TO GO WITH THE NEW STANDARDS THAT CONTAINS A LOT OF INFORMATION. IF YOU HAVEN'T LOOKED AT IT ALREADY, THE K-12 SUPPORT DOCUMENTS TAB IS ESPECIALLY USEFUL. THE DOCUMENTS PROVIDE MORE DETAILED INFORMATION ABOUT WHAT STUDENTS SHOULD KNOW FOR EACH OBJECTIVE, INCLUDING A LIST OF POTENTIAL ACADEMIC LANGUAGE ASSOCIATED WITH EACH ONE. IN ADDITION, DPI DID A SERIES OF WEBCASTS DURING THE YEAR FOCUSING ON DIFFERENT TOPICS RELATED TO THE STANDARDS. YOU CAN ACCESS THE RECORDINGS OF ALL OF THOSE SESSIONS BY USING THE FOLLOWING LINK.

## MSEC RECEIVES PUBLIC SCHOOL PARTNERSHIP MINI-GRANT

APP STATE'S MSEC PARTNERED WITH THE ACADEMY AT MIDDLE FORK, ASHE COUNTY, CALDWELL COUNTY, WILKES COUNTY, AND WATAUGA COUNTY TO APPLY FOR A PUBLIC SCHOOL PARTNERSHIP MINI-GRANT TO FUND A DAY OF PROFESSIONAL DEVELOPMENT FOR FIFTH GRADE TEACHERS FROM THOSE COUNTIES AROUND THE NEW SCIENCE STANDARDS. THE GRANT WILL FUND A DAY LONG PD ON JULY 23RD AND AUGUST 7TH FOCUSED ON THE SCIENCE PRACTICE OF MODELING. TEACHERS CAN CHOOSE WHICH DAY THEY WOULD LIKE TO ATTEND. IF YOU KNOW A FIFTH GRADE TEACHER THAT MIGHT BE INTERESTED, PLEASE HAVE THEM CONTACT LESLIE BRADBURY AT [UPSONLK@APPSTATE.EDU](mailto:UPSONLK@APPSTATE.EDU) FOR MORE INFORMATION.

## CONNECT WITH THE MATHEMATICS AND SCIENCE EDUCATION CENTER

WEBSITE: [HTTPS://MSEC.APPSTATE.EDU/](https://msec.appstate.edu/)

INSTAGRAM: [HTTPS://WWW.INSTAGRAM.COM/APPSTATEMSEC/](https://www.instagram.com/appstatemsec/)

FACEBOOK: [HTTPS://WWW.FACEBOOK.COM/APPSTATEMSEC](https://www.facebook.com/appstatemsec)

PLEASE ENCOURAGE ANYONE WHO WOULD LIKE TO BECOME A STEM  
AMBASSADOR TO CONTACT LESLIE BRADBURY AT  
UPSONLK@APPSTATE.EDU