

## Examples of Deliverables

The purpose of this funding opportunity is to **build on and add to the current research, knowledge and curriculum** that address and align with the [current NASA education themes and missions](#). To meet this purpose, all project proposals that are funded must include a deliverable related to the purpose and a rationale for the planned deliverable. Complete funding will not be awarded until this expectation has been met. Deliverables from funded projects will be shared on our website for others to learn from. Examples of deliverables that projects might consider are provided here:

### Curriculum

If you are writing or modifying a lesson or unit plan that you will use to test or explore your questions, then a completed lesson or unit that is finalized from the results would be appropriate. If this is a deliverable that you will include in your proposal then you should include the following components at the end of your project:

- A completed formal lesson/unit plan
- a connection to the national science standards
- a connection to the NC Core essentials
- an explanation of the results from your project that confirm this lesson/unit as being effective
- student samples of work
- rubrics and scoring keys
- teachers' notes (content that is important, resources, common misconceptions on the topic, etc)
- Appropriate age group, suggested time frames for implementation, materials, etc.

### Assessments

If you are creating an assessment or exploring an assessment, then your project deliverable is likely the assessment itself. If this is the deliverable that you are planning to submit at the end of your project, then you should include the following components:

- The assessment itself
- The age group or population that this assessment is most appropriate for
- Instructions on when and how to administer the assessment
- What the assessment measures
- Results that indicate the validity and reliability of the assessment
- Coding, keys and rubrics specifically needed to implement this assessment
- Student samples and samples of scoring or coding

### Journal Articles

Communicating your project in a public forum is an appropriate deliverable for this program. Journal articles provide an opportunity to do so to various audiences. You should decide who it is that you think would be most interested in hearing about your project and find an appropriate journal to submit your report to. Your mentors should be able to provide advice on this. It is suggested that if you decide to follow this path in producing a deliverable, that you read several articles from the journal you plan to submit an article to in order to understand the kind of information you need to include, the voice and style of writing and the kind of content that should be included in your writing. Your mentors are permitted to serve as secondary authors on your article. There are a number of journals that you can submit an article to. Journals fall into different categories such as education, teacher education, geology, geology education, etc. Some examples of journals that you might consider submitting an article to are:

- Science Education ([http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1098-237X](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1098-237X) )
- Electronic Journal of Science Education (<http://ejse.southwestern.edu/index>)

- Science Scope ([http://learningcenter.nsta.org/browse\\_journals.aspx?journal=ss](http://learningcenter.nsta.org/browse_journals.aspx?journal=ss) )
- Current issues in Education (<http://cie.asu.edu/> )
- Journal of Curriculum & Instruction (<http://www.joci.ecu.edu/index.php/JoCI> )
- Journal of Science Teacher Education  
(<http://www.springer.com/education+%26+language/science+education/journal/10972> )
- Journal of Research in Science Teaching ([http://onlinelibrary.wiley.com/journal/10.1002/\(\(ISSN\)1098-2736](http://onlinelibrary.wiley.com/journal/10.1002/((ISSN)1098-2736) )
- School Science & Mathematics (<http://www.wiley.com/bw/journal.asp?ref=0036-6803> )
- Educational Studies in Mathematics  
(<http://www.springer.com/education+%26+language/mathematics+education/journal/10649>)
- Journal for Research in Mathematics Education  
([http://www.nctm.org/eresources/journal\\_home.asp?journal\\_id=1](http://www.nctm.org/eresources/journal_home.asp?journal_id=1) )
- Journal for Research in Science Education
- Science & Children (<http://www.nsta.org/elementaryschool/> )
- Journal of College Science Teaching (<http://www.nsta.org/college/> )
- The Science Teacher (<http://www.nsta.org/highschool/> )
- Research in Science Education  
(<http://www.springer.com/education+%26+language/science+education/journal/11165>)
- Childhood Education (<http://www.tandf.co.uk/journals/UCED> )
- Contemporary Issues in Technology and Teacher Education (<http://www.citejournal.org/vol11/iss3/> )
- Astronomy Education Review (<http://aer.aas.org/> )
- Astronomy Research Based Science Education Journal (<http://www.noao.edu/education/arbse/arpd/journal> )
- Journal of Research Practice (<http://jrp.icaap.org/index.php/jrp/index> )
- Journal of Geoscience Education (<http://nagt-jge.org/> )
- Journal of Biology Education (<http://www.tandf.co.uk/journals/RJBE>)

### Conference presentations/workshops

Conferences and workshops provide opportunities for you to share your work with others so that they can learn and build on your experiences and knowledge. It also provides opportunities for you to network and find out what others are doing in the area of research and teaching that you are interested in. Just as there are several journals that you can write articles to, there are also several conferences that you can present your work at. Through many of these conferences and organizations you can either present a paper (PowerPoint or poster) or conduct a workshop. You can submit and present your work with your mentors as secondary authors. It is advised that you discuss conferences that are most appropriate with your mentors as a part of your proposal. Examples of conferences might include:

- North Carolina Science Teachers Association (<http://www.ncsta.org/>)
- National Science Teacher Association (<http://www.nsta.org/conferences/> )
- American Association of Physics Teachers (<http://www.aapt.org/> )
- North Carolina Section of the AAPT (<http://www.physics.ncsu.edu/ncaapt/> )
- American Astronomical Society ([http://aas.org/meetings/meetings\\_future.php](http://aas.org/meetings/meetings_future.php) )
- Astronomy Society of the Pacific (<http://www.astrosociety.org/>)
- American Geological Union (<http://www.agu.org/> )
- American Science teachers Association (<http://theaste.org/> )
- National Association of Researchers in Science teaching (<http://www.narst.org/annualconference/> )
- American Educational Research Association (<http://www.aera.net/> )

You can also organize a workshop and invite teachers and other interested audiences to participate through the ECU Center for Science & Mathematics. <http://www.ecu.edu/cs-educ/csmte/>