



Instructors:

Caitlin Nolby
cnolby@space.edu
701-777-4856

Marissa Saad
msaad@space.edu
701-777-4161

Dates:

Oct. 8, 2015
Oct. 15, 2015
Oct. 22, 2015

Location:

Mayville State
University

Workshop Goals

1. Help educators to engage students in areas of space exploration and general science, by using effective instructional strategies and educational resources, with engaging and inspiring content.
2. Promote the effective use of *SciGirls*® investigations and NASA-developed resources through integration of space science content with the *SciGirls* style of inquiry.

Workshop Objectives

1. Participants will develop a comprehensive understanding of the *SciGirls Seven* by the end of the workshop.
2. Participants will be equipped to modify existing lesson plans using the *SciGirls Seven* by the end of the workshop.
3. Participants will gain confidence teaching space sciences through an increased knowledge of space-related topics.
4. Participants will be able to effectively conduct investigations presented during the workshop (and modified lesson plans) in their respective classrooms, utilizing their understanding of the *SciGirls Seven* and space sciences by the end of the workshop.

Assignments:

1. Due: October 15, 2015

Links are given below to download pdf's. Hard copies will be distributed at the workshop.

- a. **Reading:** *SciGirls*® *Seven*: How to Engage Girls in STEM
http://tpt.vo.llnwd.net/o26/scigirls/ScigirlsSeven_Print.pdf
- b. Contribute a minimum of three tips/tricks/challenges to *SciGirls Seven* Google doc:
<https://goo.gl/NvZxXp>



- c. Bring lesson plan to October 15, 2015 meeting date for modification to include *SciGirls Seven*

2. Due: October 22, 2015

Classroom Experience: Workshop participants will be required to implement one of the investigations conducted during the first two days of the workshop in their respective classrooms before the final meeting date. They can also choose to implement the activity that they modified during the workshop instead. Participants will share their classroom experience on the final meeting day.

Informal presentations should include:

- Description of investigation conducted
- Elements of *SciGirls Seven* included in investigation
- Any challenges/successes with classroom implementation

Grading:

- Grades for this workshop are given as Satisfactory or Unsatisfactory (S/U).
- Completion of all assignments and Participation in all workshop activities including discussions will result in a grade of 'S.'

From UND Office of Extended Learning:

- You will receive an email confirmation of your course completion and instructions for ordering transcripts **after UND receives the grade report** from the instructor. **Contact Caitlin Nolby** concerning your grade if you have not received your course completion confirmation from UND within 2- 3 weeks of the end of course date.
- All grades for professional development credits are recorded on official transcripts at the University of North Dakota as continuing education credit. It takes approximately **3-4 weeks from your end of course date for grades to be posted on transcripts**, provided registrations and grades are received according to posted due dates.
- Viewing Unofficial Transcripts and Ordering Transcripts:
For full instructions, go to: <http://educators.und.edu/transcripts/>



Credit Registration:

- Register online at: <http://educators.und.edu/workshops/>
- OPEN: September X, 2015
- CLOSED: November X, 2015 (Final day to register for credit).
- Late Registration:
 - To avoid any late fees, please complete your credit registration within the time frame stated above. Failure to do so will result in a late fee of \$25, along with your original credit fee.



Thursday, October 8, 2015

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| 4:30-5:00 pm | Introduction Activity |
| 5:00-5:15 pm | Workshop Objectives and Agenda Overview |
| 5:15-6:15 pm | Investigation – Strange New Planet |
| 6:15-6:30 pm | <i>Break</i> |
| 6:30-7:15pm | <i>Working Dinner</i> SciGirls® Mission and “Sizzle Reel” Presentation |
| 7:15-8:00 pm | Investigation – Parachute Parade |
| 8:00-8:30 pm | Wrap up: Reflection on Investigations and Teaching Strategies |
| 8:30-8:45pm | Formative Assessment Activity |

Homework:

1. Reading: *SciGirls Seven* - http://tpt.vo.llnwd.net/o26/scigirls/ScigirlsSeven_Print.pdf
2. Contribute to Tips/Challenges in *SciGirls Seven* Google Doc
3. Bring lesson to class next week that can be modified with *SciGirls 7*

Thursday, October 15, 2015

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| 4:30-4:45 pm | Review of Workshop Objectives and Activities |
| 4:45-5:15pm | <i>SciGirls Seven</i> Discussion and Activity |
| 5:15-6:15 pm | Investigation – House Warming |
| 6:15-6:30 pm | <i>Break</i> |
| 6:30-7:15 pm | <i>Working Dinner</i> NASA Educator Resources |



- 7:15-8:00 Lesson Plan Integration with *SciGirls Seven*
- 8:00-8:30 pm Wrap up: Reflection on Investigations and “Gots and Needs”
- 8:30-8:45pm Formative Assessment Activity

Homework:

Implementation of workshop investigation or modified lesson plan in classroom

Thursday, October 22, 2015

- 4:30-4:45pm Review of Workshop Objectives and Activities
- 4:45-6:15 pm Sharing of *Classroom Experience* Assignments
- 6:15-6:30 pm *Break*
- 6:30-7:15pm *Working Dinner*
Meteorites Presentation
- 7:15-8:15pm **Investigation** – Super Sleuths
- 8:15-8:30 pm Wrap Up: Reflection on Investigations
- 8:30-8:45pm Final Evaluations

SciGirls, an award winning PBS KIDS series, website and national outreach initiative, is changing how millions of tween girls think about science, technology, engineering and math, or STEM! In each episode, animated characters Izzie and her best friend Jake find themselves in jams only science can fix. To set things right, Izzie calls on bright, curious real-life SciGirls, who put STEM to work and save the day. Izzie also invites viewers to hang out on the website - pbskids.org/scigirls - a totally safe, social networking environment where girls can play games, connect, create personal profiles and avatars, share projects and watch every episode.

SciGirls is produced for PBS by tpt National Productions and is made possible by the National Science Foundation. Additional support provided by L’Oreal USA’s For Girls in Science program, Northrup Grumman Foundation, and PPG Industries Foundation. SciGirls ®/© 2014 Twin Cities Public Television, Inc. pbskids.org/scigirls