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# STEM Academy 2018-19

— Academy info to start the  
2018-19 school year —

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# Welcome Back!

- Glad to have everyone here!
- Welcome to our new Academy students!
- New STEM Coordinator - Shane Barry, Science Teacher ([sbarry@wcpss.net](mailto:sbarry@wcpss.net))
- STEM Academy on Twitter (@AthensSTEM)
- Our fearless leader - Mr. Parrish! ([jparrish@wcpss.net](mailto:jparrish@wcpss.net))

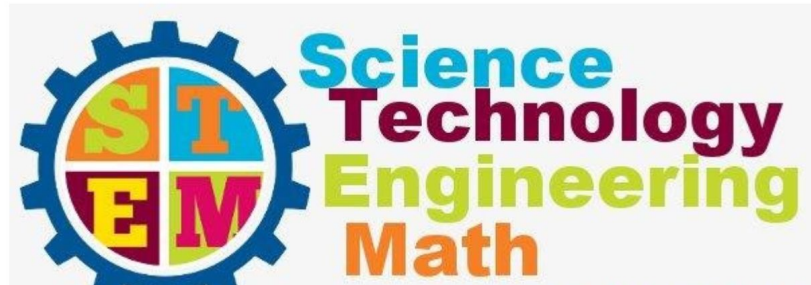


# New Website

- We need better communication within our Academy!
- The [new website](#) is meant to be a working communication document within the Academy (not outreach to potential future students)
- Should help with:
  - Communication with STEM families
  - Highlighting Academy happenings
  - Communicating to students their requirements within the Academy
  - Expressing portfolio requirements
  - Keeping track of STEM points
- Quick run through of website

# STEM Website - Home Page

- Basic Academy Info
- Under Armour store link - AD STEM gear!
- STEM Pathways (staying the same this year!)



# STEM Website - Updates

- Survey at top - COMPLETE ASAP!
- Email updates to come
- Academy Calendar
- Academy Twitter Feed



- Get updates and stay in touch with the STEM Academy! Please fill out [THIS QUICK SURVEY](#) in order to stay up to date via periodic emails. This form needs to be completed once per student in the Academy!
- You will also find some methods for staying up to date below - namely a calendar of Academy happenings and the [Twitter feed](#) for the STEM Academy.

STEM Academy

Today ◀ ▶ September 2018 Week Month Agenda

Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27 First Day of	28	29	30	31	Sep 1
2	3	4 6pm MANDAT	5	6 Both Lunche	7	8

## Tweets by @AthensStem



**AthensSTEMAcademy**  
@AthensStem

Looking forward to seeing someone from every STEM Academy family tonight at 6 pm sharp in the auditorium!

# STEM Website - Special Programs

- Special happenings within the STEM Academy
- Student focus
- Updates coming periodically
- NCGreenPower - Solar Panel Grant!
- Crayola Colorcycle - partnership, STEM Point opportunity



<https://sites.google.com/wcpss.net/adhsstemacademy/home>



# Solar Panel Initiative - NCGreenPower

- ADMHS has been awarded with a matching grant for a PV System
- Likely location: senior hallway on roof of first floor
- Student group headed by Academy senior and Student Body President Rocco Nociti
- We need your help for the matching part!
- Individual donations
- Corporate donations/sponsorship
- Linked on Special Programs page
- Checks made to "NC GreenPower" - NOT Athens Drive HS

The screenshot shows the NCGreenPower website interface. At the top, there is a green navigation bar with the logo "my NCGREENPOWER" on the left and links for "CAMPAIGNS", "GENERATORS", and "MY PROFILE" on the right. The main content area features the title "ATHENS DRIVE MAGNET HIGH SCHOOL SOLAR PANEL INITIATIVE" in green text. To the right of the title is a circular progress indicator showing "2% OF GOAL". Below the title, there is a "CAMPAIGN STATS" section with a green header. It displays "AMOUNT DONATED" as "\$260" in large green font, with "GOAL: \$15,000" and "TARGET DATE: 10/12/2018" in smaller text below. A prominent orange "DONATE NOW" button is positioned below the stats. Underneath, the "CONTRIBUTORS" section shows the number "7". To the right of the stats is a large orange banner with the word "ATHENS" in large, bold letters, where each letter is filled with a photo of students. Below the banner is the hashtag "#theDRIVEforexcellence". At the bottom right, there is a green lightning bolt icon, the school name "ATHENS DRIVE MAGNET HIGH SCHOOL", and the website URL "WWW.WCPSS.NET/ATHENSDRIVEHS".

# STEM Website - Class Info

- Items specific to individual classes
  - Grade level project
  - Class meetings
  - Other important announcements
- Student Contract
  - Due to Mr. Barry by Friday 9/14!!
  - Copies available here



## All Classes

- STEM Academy Meeting: there will be a **MANDATORY** meeting for all students and their families on Tuesday September 4th in the Athens Drive Auditorium
- [Student Contracts](#): all students must complete the linked student contract and return it to Mr. Barry by Friday 9/14 at the end of the school day

## 9th Grade - Class of 2022

- Upcoming Meetings: 9/26 Common Lunch First Block Auditorium
- Class Project Info: once assigned, your class project info will be linked here



# Student Contracts

- New student contract linked [HERE](#)
  - Also available on the Academy website, Class Info page
- STUDENT ACCOUNTABILITY - students not completing in the projects, not coming to meetings, and not participating within the Academy make it more difficult for the students who are carrying their own weight
- This has been a point of frustration for Academy students and teachers for years
- Yes, I will remove students from the Academy!
  - Student appeal process included in contract

# Student Contracts

## - Highlights:

- An agreement (“pledge”) made by student to be responsible within the Academy
- Conditions: portfolio, class projects, STEM points, grades, STEM pathway
- Failure to meet conditions - removal from the Academy is a possibility
- Appeals process - available for any students who do not meet conditions
- Signatures - student, parent, STEM Academy representative

**Athens Drive Magnet High School**  
**STEM Energy and Sustainability Academy**

**Student Contract**

This contract is being entered into between \_\_\_\_\_ *Student Name* \_\_\_\_\_ who is set to graduate in \_\_\_\_\_ *Graduation Year* \_\_\_\_\_ and a representative of the STEM Energy and Sustainability Academy. It outlines the expectations and requirements of students enrolled in the Academy. This agreement holds for as long as the previously mentioned student is enrolled in the Academy and ends upon graduation from the Academy, withdrawal from the Academy, or removal from the Academy.

**Conditions**  
The student must initial next to each condition showing that they understand what the condition is and agree to meet it during their time in the STEM Academy.

\_\_\_\_\_ A. STEM Portfolio: students are expected to create and maintain a STEM Portfolio with guidelines set forth upon creation of this portfolio. Students are expected to update it to the ability and keep all information included professional.

\_\_\_\_\_ B. Class Projects: students are expected to put forth all required effort to complete projects assigned each year within the Academy. Students are expected to work with their groups to the best of their ability and should bring any concerns to their project advisor or the Coordinator.

\_\_\_\_\_ C. STEM Points: students are expected to complete Academy related activities to earn Points before moving on to the next grade within the Academy. Any issues in scheduling that student unable to complete this should be brought to the STEM Coordinator's attention with allowed for planning a solution.

\_\_\_\_\_ D. Student Grades: students are expected to maintain an acceptable GPA and put effort of their classes. This may range in exact GPA number between students and will be based on feedback from teachers regarding student effort (ie if a student is putting their maximum effort class then a lower grade may be acceptable).

\_\_\_\_\_ E. STEM Pathways: students are expected to choose one of the outlined STEM Pathways make an effort to complete all required classes within that pathway. While exceptions may be an individual basis regarding class options as a student moves throughout the Academy, it is that each student will make do their best to complete a pathway.

**Failure to Meet Conditions**  
If a student does not meet the conditions outlined above they may be removed from the STEM Energy and Sustainability Academy. Failing to meet any one of the conditions can lead to removal. At least one warning will be provided before a student is removed. Student's will be treated as individuals in this process and each case will be considered separately (ie some students may receive more warnings than others given the situation).


**Appeals Process**  
A student who has been removed from the STEM Energy and Sustainability Academy may appeal to a board of STEM members. This board will include the STEM Coordinator, an administrator involved in STEM Academy planning, and a senior student in the STEM Academy (this student may either be chosen by the student to be removed or will be chosen at random). The board will allow the student to state their case for remaining in the Academy and will return a verdict (removal stands or allowed to stay) within 48 hours of the appeal. This verdict will be final.

**Signatures**

Student Name \_\_\_\_\_ (Print)  
\_\_\_\_\_  
(Signature) \_\_\_\_\_ (Date)

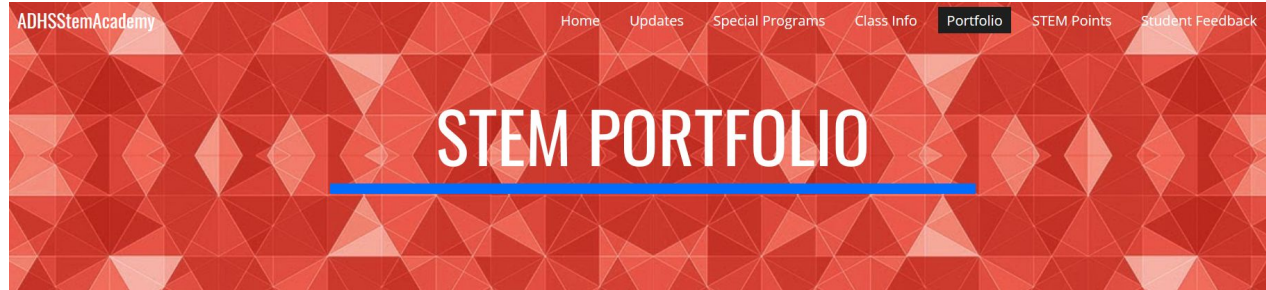
Guardian Name \_\_\_\_\_ (Print)  
\_\_\_\_\_  
(Signature) \_\_\_\_\_ (Date)

Academy Representative Name \_\_\_\_\_ *Shane Barry* \_\_\_\_\_ (Print)  
Representative Title \_\_\_\_\_ *STEM Coordinator* \_\_\_\_\_ (Print)

  
\_\_\_\_\_  
(Signature) \_\_\_\_\_ (Date)

# STEM Website - Portfolio

- All students will be required to have and update a portfolio
- Follow these directions SPECIFICALLY
- Yes, students who have one need to quickly set up another
- Help Sessions: 9/6, 9/12, 9/13 during both lunches in Driver's Ed Computer Lab
- Due by end of the day on Monday 9/24



All students within the STEM Academy must have and maintain a STEM Portfolio. This will provide an artifact to graduating students that is representative of the time that they spent within the Academy and will help track their progress as they move along.

#### **Setting Up a Portfolio**

All students need to set up a STEM Academy Portfolio by following the directions linked immediately below. Returning students should read the 'Continue Existing Portfolio' information at the bottom of this page before doing so. You must be logged in to your WCPSS Google Drive account to set up your portfolio!

- [Directions](#) for setting up your STEM Portfolio.

# STEM Website - STEM Points

- Meant to show participation within the Academy
- New opportunities will be posted as they arise
- Currently: 15 points needed per year
- This will be edited if necessary!

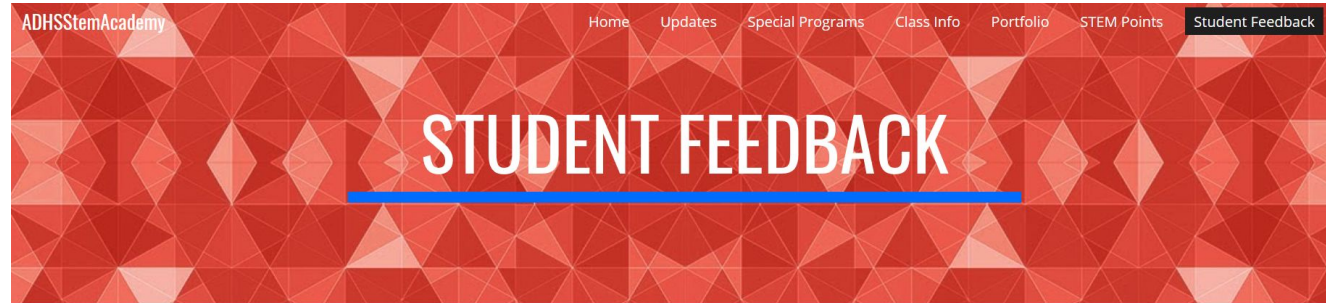


## **STEM Points**

- STEM Points are a reflection of student participation within the STEM Academy; they are earned by participating in Academy events and meeting required checkpoints
- Each student will be required to earn a set number of STEM Points each school year in order to continue progressing through the Academy. The number of points required per grade is included on the 'Class Info' page and varies by grade because of the types of activities included
- Students may check here to see upcoming events that will earn them STEM Points. This page will stay as current as possible as new events are planned
- Student's can also check their STEM Point total on the embedded document below. All students will be assigned a STEM ID for this purpose at the beginning of the school year. They can find their ID and determine how many points they have (please give 48 hours for your request for STEM Points to be updated)

# STEM Website - Student Feedback

- Emails and videos from former Academy students about the Academy
- Recent email



Here at the STEM Energy and Sustainability Academy, we are EXTREMELY proud of our graduates and what they go on to accomplish. We have asked many of our graduates to make a short video about their future plans along with advice that they have to current STEM students. Check out what they have to say!

An email I recently received from a former student who started at North Carolina State University's College of Engineering in the Fall of 2018 (shared with permission):

- "Hey Barry,

I'm sitting in my Engineering 101 class and literally everything that he's saying is stuff we've done either in Capstone or in STEM in general. He asked who has done a scientific poster/presentation, we're going to do a more in-depth project of our capstone project and it's literally the same stuff we've done in class. If you wanted some ideas to share your stuff with him, his email is [omitted] if you

# Regular Meetings

- Students will have regular (minimum monthly) meetings with me to get update info, portfolio requirements, other updates, etc
- These will be available on the new STEM website as well
  - Available both on the calendar on the Updates page and on the Class Info page
- First round of meetings schedule:
  - Freshman (class of 2022): Wednesday 9/26 First Common Lunch Auditorium
  - Sophomores (class of 2021): Wednesday 9/26 Second Common Lunch Auditorium
  - Juniors (class of 2020): Thursday 9/27 First Common Lunch Room 2720
  - Freshman (class of 2019): Thursday 9/27 Second Common Lunch Room 2720

# STEM Points

- We're doing this for real this year!
- Updates available on the STEM website:
  - Calendar of events to earn points
  - Requirement to move to next grade is **15 STEM Points**
  - Points each student has available based on "STEM ID" to remain anonymous
  - ID can be gathered by emailing me ([sbarry@wcpss.net](mailto:sbarry@wcpss.net)) if original meeting letter is lost



**PLUS POINTS**  
A New Way to Reward Yourself

	Facebook	Twitter	Instagram	Periscope	
Like/follow a page or account	250 points	250 points			Earn 1 point for each Like or follow (No. activity limit per day)
Share/Retweet content	25 points	25 points			
Special Check-out/Post Geotagging photos	25 points		25 points	25 points	Earn 1 point for one action per 24 hours (limited to one activity per day)
Write reviews (e.g. #LoveMySchoolRewards, #MySchool, #MyMentor)	25 points	25 points	25 points		



# Identifying STEM Teachers

- New door posters to identify STEM teachers
- Look for them so you know you're in a STEM class!
- UA AD STEM gear - sports teams get it so why not us??



**Science  
Technology  
Engineering  
Math**  
ATHENS DRIVE HIGH SCHOOL

**Mr. Barry**  
Science Teacher, STEM Coordinator, & Swim Coach

**Classes:**  
AP Physics 1 & 2  
STEM Capstone

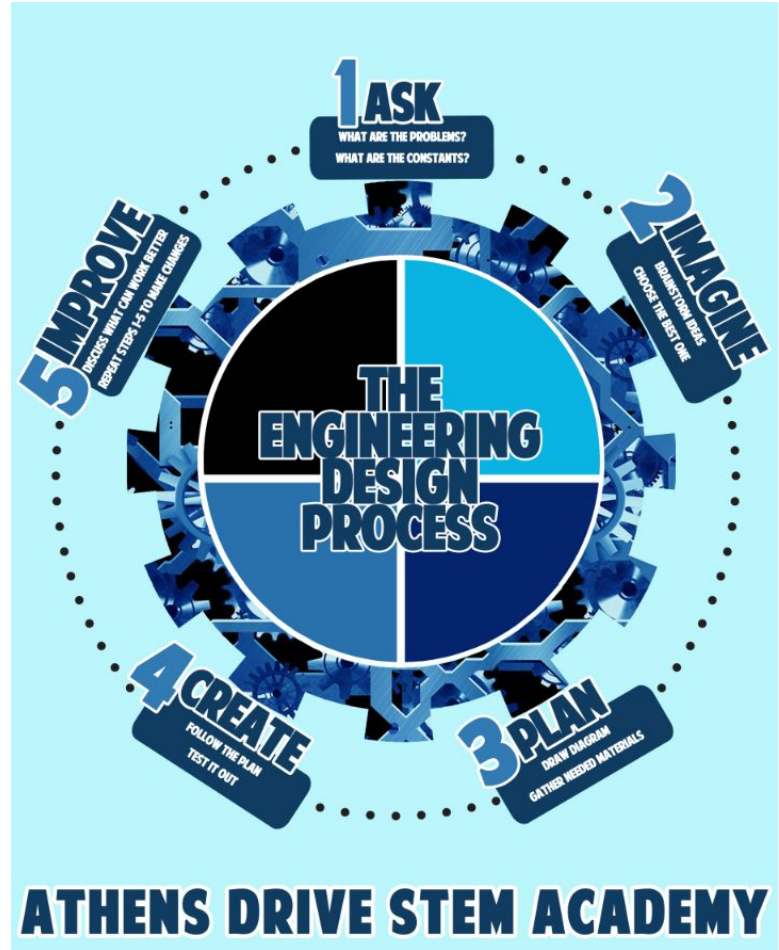
**Contact:**  
sbarry@wcpss.net  
@mrbarryphysics  
@AthensSTEMAcademy  
@ADNswim

*I'm an NCSU Wolfpack Engineering graduate and former Field Engineer at the Pentagon. Since then I've returned to pursue my passion for education.*



# Common Practices

- Engineering Design Process (EDP)
  - Methodology for problem solving
  - Poster examples in classrooms
- Project Based Learning (PBL)
  - Learning via applied, real world examples
  - Cross curricular, PBLs being developed
- STEM portfolios
  - Updated progress within Academy
- Grade level projects
  - STEMPosium!



# Accreditation

- We're going for it again!
- Feedback from last year was surprisingly positive
- My feelings: if we do this right then accreditation will come. We need to focus on improving the Academy based on what those involved (teachers, admin, student leaders) feel is necessary, not based on what a group who spends one day here thinks about us
- If we can do that then the rest will follow

