



# Get On The Grid!

## MISSISSIPPI ENERGY INSTITUTE (MEI)

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MEI created *Get On The Grid* because we are passionate about seeing Mississippi's students find fulfilling, professional careers right here in our state. We believe that growth in energy and advanced manufacturing are the keys to driving Mississippi's economy forward, and that our next generation of workers must be equipped to meet the demands of our expanding industries.

To do this, all stakeholders—companies, educators, parents, and students—must work together to rebrand and promote these skilled, high-paying positions. The immediate goal of *Get On The Grid* is to create a pipeline between students and employers that encourages these students to pursue excellence in STEM classes and to develop good work ethics in order to become the professional, engaged workforce we need in Mississippi. As teachers, we commend your efforts on the ground, and ask that you partner with us in making *Get On The Grid* a success, both for your students and the future of our state.

Please visit [www.getonthegridms.com](http://www.getonthegridms.com) and explore the resources, lesson plans, and activities that are waiting for you!



# Get On The Grid!

## ABOUT THE AUTHOR

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Rebecca Tyndall has been teaching with St. Martin High School since 2011 and has been teaching as an adjunct professor at Hinds Community College and Mississippi Gulf Coast Community College since 1998 and 2006, respectively. Her passion for education has been evident since joining the Mississippi Secretary of State's Office in 1998 and working her way up to Education Director. Furthering her love for education, she joined the Mississippi Department of Education as the Social Studies Specialist. It was during this time that she found her love for economics and has continually pursued that passion ever since. She graduated in 1992 from Florence High School in Florence, MS, then received her Associates Degree in history and political science from Hinds Community College in 1994, and then went on to Mississippi College to obtain her Bachelor of Science and Master's degrees in 1996 and 1999 in history and political science. She currently resides with her husband, Brian, and two children, Nora Grace and Zachariah, in Vancleave, MS.

These lesson plans were created with the ease of classroom implementation in mind. My great hope is that you find using these resources in your classroom to be fun and enjoyable as you actively engage your students in learning about STEM careers. Enjoy!



# Get On The Grid!

## MIDDLE SCHOOL LESSON PLAN OVERVIEW

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**Subjects:** Economics; Career/Tech; STEM; Gifted; other

**Objective:** The objective of this lesson is to provide students with knowledge about potential jobs and correlate that information with the reality of the selected jobs providing for students' basic needs and unlimited wants.

### Social Studies Competencies and Objectives:

- ✓ 1. Understand that the nation's overall economy is characterized by the interaction of spending and production decisions.
  - a. Analyze the causes and effects of choices made by various sectors in the economy (e.g., households, businesses, and governments, etc.) in the production and distribution of resources. (DOK 3)
- ✓ 4. Understand that resources are limited and therefore choices must be made.
  - a. Explain why individuals and societies cannot have all the goods and services that they want and as a result, they make choices that involve costs and benefits. (DOK 2)
- ✓ 6. Understand the personal economic consequences of spending and investment decisions made by individuals, businesses, and governments.
  - b. Demonstrate why it is important to take responsibility for personal financial decisions. (DOK 3)

## **Trade, Technical & Engineering-Related Technology**

According to the Mississippi Department of Education's website, "the Trade and Technical Programs provide individuals with the academic and technical knowledge and skills they need to prepare for further education and for careers (other than careers requiring a baccalaureate, master's, or doctoral degree) in current or emerging employment sectors.

These programs include competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, of an individual." This lesson plan would definitely comply with the objectives set forth in this objective when taught in the Career/Technical and STEM classes currently being offered around the state.



# Get On The Grid!

## MIDDLE SCHOOL LESSON PLAN

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### Resources:

- ✓ Get On The Grid Website: [www.getonthegridms.com](http://www.getonthegridms.com)
- ✓ Career Comparison Worksheet
- ✓ Budget Worksheet

### Objective:

To introduce students to potential careers in the energy and advanced manufacturing fields. Students will be asked to pick two different career choices from the Choose Your Career section found on [www.getonthegridms.com](http://www.getonthegridms.com). Students will research their chosen fields and will answer a series of questions that will help determine which field may be right for them.

### Optional:

- ✓ You may require students to work on a budget that will correlate with the jobs they are comparing in the main activity. This will reinforce the economic concept of needs vs. wants.
- ✓ As a bonus option, students might use the Landing the Job 101 section found on [www.getonthegridms.com](http://www.getonthegridms.com) and work through it as a simulation activity. Students should be grouped together and create a skit that will walk through the steps listed under the Landing the Job 101 section. Teachers and students should grade this activity to see what was done well and what could have been included to make it better.

- ✓ Once a career is chosen, students would be required to write an essay on why their chosen career is, in fact, the career for them. This option would reinforce the writing portion of the Common Core College and Career Readiness guidelines.
- ✓ Invite a local educational leader to class to discuss the different programs they offer and what tuition costs can be expected. If possible, plan a field trip for some firsthand knowledge and experience in the fields they are researching. Remember, they could be introduced to the job of their dreams, so this is an excellent option to keep in mind!
- ✓ Have students prepare for an interview with their chosen career. Students should prepare a list of questions the employer might ask as well as a list of questions they would like to ask the employer.

## **Lesson Plan:**

1. Open up [www.getonthegridms.com](http://www.getonthegridms.com) in class and familiarize students with the information it contains and where the information they need for the assignment is located. Teachers should familiarize themselves with the website in order to facilitate student knowledge and navigation of the information found on the website.
2. If you have the technology in class, then you may want students to work on their Career Comparison Worksheet in class. If not, then you will need to assign as homework and allow for at least 3-4 days for completion.
3. Students will need to thoroughly work through the Career Comparison Worksheet to make it the most effective possible resource for students to choose a potential job for their future.
4. If participating in the budget option, please handout the Budget Worksheet to students. Since most students are very unfamiliar with budgets, this might take a couple of class periods to complete. You can complete all the budget work in class if the technology is available or you can have students research some options outside of class.

5. Once students have completed the Career Comparison Worksheet, it would be most helpful to discuss their findings in class. Though some career choices will overlap, it will be most beneficial for students to hear about all the potential career options that were chosen.

## **The Wrap Up:**

1. Have students discuss what they have learned from the activity. What are their takeaways? Has this activity inspired them to consider a career that they haven't considered before?
2. End the lesson with what you hope students have learned and encourage them to follow through on the new knowledge they have gained regarding potential jobs and/or the budget activity.



# Get On The Grid!

## HIGH SCHOOL LESSON PLAN OVERVIEW

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**Subjects:** Economics; Career/Tech; STEM; other

**Objective:** The objective of this lesson is to provide students with knowledge about potential jobs and correlate that information with the reality of the selected jobs providing for students' basic needs and unlimited wants.

### Social Studies Competencies and Objectives:

- ✓ 1. Understand that the nation's overall economy is characterized by the interaction of spending and production decisions.
  - a. Analyze the causes and effects of choices made by various sectors in the economy (e.g., households, businesses, and governments, etc.) in the production and distribution of resources. (DOK 3)
- ✓ 4. Understand that resources are limited and therefore choices must be made.
  - a. Explain why individuals and societies cannot have all the goods and services that they want and as a result, they make choices that involve costs and benefits. (DOK 2)
- ✓ 6. Understand the personal economic consequences of spending and investment decisions made by individuals, businesses, and governments.
  - b. Demonstrate why it is important to take responsibility for personal financial decisions. (DOK 3)



## **Trade, Technical & Engineering-Related Technology**

According to the Mississippi Department of Education's website, "the Trade and Technical Programs provide individuals with the academic and technical knowledge and skills they need to prepare for further education and for careers (other than careers requiring a baccalaureate, master's, or doctoral degree) in current or emerging employment sectors.

These programs include competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, of an individual." This lesson plan would definitely comply with the objectives set forth in this objective when taught in the Career/Technical and STEM classes currently being offered around the state.



# Get On The Grid!

## HIGH SCHOOL LESSON PLAN

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### Resources:

- ✓ Get On The Grid Website: [www.getonthegridms.com](http://www.getonthegridms.com)
- ✓ Education and Career Budget Project
  - Optional: Use Career Comparison and Budget Worksheets if time is at a premium

### Objective:

To introduce students to potential careers in the energy field. Students will be asked to pick two different career choices from the Choose Your Career section found on [www.getonthegridms.com](http://www.getonthegridms.com). Students will research their chosen fields and will answer a series of questions that will help determine which field may be right for them.

### Optional:

- ✓ As a bonus option, students might use the Landing the Job 101 section and work through it as a simulation activity. Students should be grouped together and create a skit that will walk through the steps listed under the Landing the Job 101 section. Teachers and students should grade this activity to see what was done well and what could have been included to make it better.

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- ✓ Have students prepare for an interview with their chosen career. Students should prepare a list of questions the employer might ask as well as a list of questions they would like to ask the employer.

## **Lesson Plan:**

1. Open up [www.getonthegridms.com](http://www.getonthegridms.com) in class and familiarize students with the information it contains and where the information they need for the assignment is located. Teachers should familiarize themselves with the website in order to facilitate student knowledge and navigation of the information found on the website.
2. If you have the technology in class, then you may want students to work on their Education and Career Budget Project in class. If not, then you will need to assign as homework and allow for at least 1-2 weeks to complete the project depending on how much class time you will utilize.
3. Students will need to thoroughly work through the Education and Career Budget Project to make it the most effective possible resource for students to choose a potential job for their future.
4. Once students have completed the Education and Career Budget Project, it would be most helpful to discuss their findings in class. Though some career choices will overlap, it will be most beneficial for students to hear about all the potential career options that were chosen.

5. An extension of the Education and Career Budget Project would be to have students research the demand for their chosen career. To what extent are these jobs a viable option where the students currently reside? What industries are offering those jobs? Does this affect the starting pay? Would the students need to relocate in order to find a job in their chosen field where the chances for hiring are better?
6. Have students prepare for an interview with their chosen career. Students should prepare a list of questions the employer might ask as well as a list of questions they would like to ask the employer.

## **The Wrap Up:**

1. Have students discuss what they have learned from the activity. What are their takeaways? Has this activity inspired them to consider a career that they haven't considered before?
2. End the lesson with what you hope students have learned and encourage them to follow through on the new knowledge they have gained regarding potential jobs and/or the budget activity.



## Education and Career Budget Project

For this assignment, students will compare career goals through one academic route or military route and one energy and advanced manufacturing field route. After looking at the costs of attending school and the anticipated salary of each career, students will then create a budget for both career choices. Once everything is completed, students will need to pick their top career choice.

### Career Choices

**Academic Route:** When looking up your academic route, please make sure you look at all standards that the college/university will require for admittance; i.e., ACT scores, GPA, community involvement, etc.

- ✓ Where do you plan to attend?
- ✓ Will you live on campus, in an apartment or at home?
- ✓ What are the costs associated with attending college; i.e., tuition, room/board, books, etc.
- ✓ How long will it take you to complete the program? Will there be any special fees associated with it; i.e., special tests to take, etc.
- ✓ How will the cost of school be paid? With loans, grants, scholarships?
- ✓ If your career goal includes additional education such as a doctorate, then include the cost of that as well.

**Military Route:** When looking into military options, please make sure to look at all requirements for that route.

- ✓ Do you plan to enter the military as an enlisted or officer corps?
- ✓ Have you taken the ASVAB? What is your score? This will help guide you in the options that are available. Talk to your counselor about test availability.
- ✓ What branch of enlistment would you like to join?
- ✓ Is there a specific specialization that you would choose? If so, is there anything you can do now to help you in that endeavor?
- ✓ What training programs do you need to complete? How long will this training last and where will you go?
- ✓ What are your goals? Four years or thirty years or somewhere in between?

**Energy and Advanced Manufacturing Field Route:** When looking at your energy and advanced manufacturing field options, please log on to [www.getonthegridms.com](http://www.getonthegridms.com) and browse through the potential choices.

- ✓ What training must be completed before entering this field?
- ✓ Are there any certifications you can earn in high school that gives you a ticket into that career field after graduation?
- ✓ What training is offered at the college level that will allow you to enter your chosen field? How long will the college training last?
- ✓ How much does the training/certification/college cost?
- ✓ Are you able to attend school longer to earn better opportunities in that field?



**Employment:** Once you have decided on your two career choices and have completed the above information, think about what you will need to start your job.

- ✓ Where will you work? Are there job openings where you live or will you need to move?
- ✓ Will you need to purchase a car or do you already own one?
- ✓ Where will you live? Do you need to rent an apartment, will you live at home or can you buy a home?
- ✓ What types of items will you need to perform your job? (This would include safety goggles, hard hats, lab coats, etc.)
- ✓ What type of salary can you expect as an entry level employee?
- ✓ Estimate what your take home pay might be minus taxes.

**Budget:** Once you have reviewed your information on your career choices and what your take home pay will be for those choices, please complete a monthly budget that should include:

- ✓ Housing
- ✓ Utilities
- ✓ Transportation costs
- ✓ Food costs (remember to include what you might eat throughout the whole day for seven days a week)
- ✓ Personal care products
- ✓ Home care products
- ✓ Insurance (health, dental, vision, etc.—some employers will provide it, but some won't—count your costs!)
- ✓ Medicines
- ✓ Entertainment (Netflix, movies, dining out, etc.)
- ✓ Will you have any student loan debt?
- ✓ Set aside a portion for savings of either 5 or 10%

**Presentation:** Now that you have completed your career choices and budget, now it's time to put everything together in one of two ways: a PowerPoint or Prezi for the digital version OR you can complete a paper version by using Word or Google docs.

- ✓ Please present information in a logical order. For your academic or military choice, include all educational costs and budget together; then follow up with your energy and advanced manufacturing field related choice information.
- ✓ Please include a reference page at the end detailing sites visited.

**Career Choice:** Now is the time to make a career choice! Which career choice do you choose?

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#### **Optional Extensions:**

- ✓ Students could write a reflection essay comparing the two choices and what finally sold them on the choice they made.
- ✓ Students could discuss in class the choices made and why.
- ✓ Students could job shadow in their chosen career choice and report back to the teacher what they have learned.



## Career Comparison Worksheet

Directions: Your assignment is to review the jobs listed on [www.getonthegridms.com](http://www.getonthegridms.com) and narrow your interests down to two choices. Answer the following questions and decide which choice is best for you!

CAREER CHOICE	#1:	#2:
Average Salary?		
Required Education?		
Skills Needed?		
Sectors Hiring?		
Potential Local Employers?		
Schools You Would Consider Attending?		
Tuition Costs? (Research Schools to find out!)		

Based on the above information, what career do you choose?

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\*\*\*\*\*Optional: On the back of this worksheet, please explain your choice!\*\*\*\*\*



Budget Worksheet	
Income: \$	
Categories	Amount
Mortgage or Rent	\$
Cable	\$
Telephone/Cell Phone	\$
Internet	\$
Car Payments/Metro or Bus Pass	\$
Gasoline	\$
Oil Changes	\$
Health Insurance	\$
Auto Insurance	\$
Dental Insurance	\$
Vision Insurance	\$
Life Insurance	\$
Home Care Products	\$
Personal Care Products	\$
Medicine	\$
Entertainment	\$
Groceries	\$
Clothing	\$
Eating Out	\$
Student Loan Debt	\$
Savings (Either 5 or 10%)	\$
Total Expenses	\$
Income minus Expenses	\$