



Drive Achievement Through Resiliency™

INTERDISCIPLINARY CONNECTIONS

Science

Investigate what it means to research something scientifically. Write a short response to the following questions:

1. How is doing biographical research (about the life of a historical figure, for instance) different from doing scientific research?
2. What's a good example of a scientific research project from the history of science?
3. What are some of the methods required for conducting research scientifically?
4. Write definitions of the following terms: hypothesis; control group; variables; etc.

Explore the relationship between emotional and psychological stress and the physical health of the human body.

1. Using the Internet or books at your school or local library, identify some of the ways the human body reacts to stress.
2. Select one of these conditions and describe three symptoms the body will exhibit when experiencing this condition as a result of stress.
3. Describe the ways people can combat these symptoms and conditions in order to manage both their stress levels and their physical responses to stress.

Research the life and work of a famous scientist.

1. Pick a scientist whose work in a particular area of science you find interesting.
2. Select one of these conditions and describe three symptoms the body will exhibit when experiencing this condition as a result of stress.
3. Describe the ways people can combat these symptoms and conditions in order to manage both their stress levels and their physical responses to stress.

Conduct an experiment on yourself, focusing on how your energy levels change during the day.

1. Create a chart that allows you to graph your energy from very low (1) to very high (5) at different points of the day.
2. You may wish to make the time increments general, as in "early morning, mid-morning, late morning" or specific by hours, as in "7-9am; 9-11am; 11am-1pm" and so on.
3. Make three copies of your chart so you can track your energy for three separate days. At the top of each chart, put the date of each day when you will track your energy.
4. On the days you've selected, make sure you have your chart close at hand. For each time increment during the course of that day, enter a rating of 1-5 to describe your energy.
5. At the end of the three days, look at the three charts to see if you can find patterns. Are you a "morning person"? Do you want to take a nap every day at 2pm? Now think about what you've learned about yourself; should you try to schedule time to study every day after dinner, or get to school half an hour early to study in the hallway, taking advantage of your high energy level in the mornings?

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Science, continued

Research a scientific career using the Internet or resources at your school or local library. Some examples of careers you might want to investigate include: wildlife conservation research scientist; medical doctor; psychiatrist; researcher trying to find a cure for AIDS, cancer, diabetes, or another disease; astronomer; nuclear physicist; etc. Write a description of the career, addressing some of the following:

1. Describe some actual people who are engaged in this work. Where do they work?
2. What kind of education and/or special training is required to be successful in this career?
3. What could a week of work within this career consist of?
4. What are some examples of projects undertaken by someone in this career?





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Language Arts

Looking back on your life until now, think about a time when you felt really proud of something you accomplished. It can be something big or small. Now follow the **STAR** process for exploring this accomplishment.

1. Write a paragraph describing the **Situation**; what were the circumstances that required you to focus on accomplishing this?
2. Write a paragraph describing the **Task** you were facing to accomplish this; what was the challenge you faced to accomplish this?
3. Write a paragraph describing the **Actions** you undertook to accomplish this; what were the steps you took to make this happen?
4. Write a paragraph describing the **Result**; what did you accomplish and why are you especially proud of it?

Using one of the quotes from *My Success Roadmap* as your inspiration, write a poem in any style about a concept explored in that quote. You may want to do some of the following to help you understand the quote fully and respond to it in your poem:

1. Research the person quoted and the source of the quote.
2. In a dictionary, look up any words in the quote that you don't fully understand. Write down these words and their definitions, making sure you grasp the meaning of the words. Think about some synonyms for these words.
3. Take some notes about the quote, focusing especially on what it makes you feel or think about. This could be a tiny detail; sometimes the best poems about are about something very specific!

Interview someone you admire. This could be another student or an adult in your community.

1. Before you meet with this person to conduct the interview, write down 10 questions you would like to ask this person that will help him/her talk about things you find interesting.
2. If possible, tape record your conversation. (Your teacher may be able to help you borrow a tape recorder from your school.) If you can't tape it, try to take complete notes.
3. Shortly after you've completed the interview, listen back through the conversation or review your notes and write up a summary of what you learned about this person. Why did you admire this person before interviewing them? What did you learn about them that either reinforces your admiration or breaks it down? What surprised you?

Write the statement: "School is very important." on the top of your composition paper. Now write a persuasive piece either proving or disproving this statement.

1. Make sure you include at least three specific reasons to support your argument.
2. For all the reasons you use, make clear the source of the reason. Is it an expert's opinion? Is it a statistic from a reputable source?
3. Refute the opposite argument. Think of the reasons someone will state for the other position, and explain how these are wrong.
4. Summarize your argument with a personal anecdote from your experience and conclude with a call to action, encouraging your reader to follow your thinking.

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Language Arts, continued

Write an autobiographical piece about a time in your life when you faced a really difficult challenge and how you dealt with it. Try to answer some of the following questions:

1. What was the challenge and why was it so difficult?
2. What were the different ways you tried to deal with this challenge?
3. Which methods for dealing with the challenge were successful, if any? Which methods were not successful?
4. If you could face this situation again, what would you do differently? What did you learn about yourself in confronting this difficult challenge?



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Mathematics

Create graphs tracking how much of certain activities you do in a week.

1. Pick three (or more) activities, such as “attend school,” “watch TV,” “sleep,” “talk with friends,” “clean up around the house,” and “play video games.”
2. For each of your three (or more) selected activities, create a separate bar graph where the X axis shows seven days of the week and the Y axis shows increments of one hour.
3. Over the course of a week, mark into each bar graph at the end of the day the number of hours you did that activity during the preceding 24 hours.
4. At the end of the week, look at your graphs and tally some numbers, including:
 - The average number of hours you did each activity each day
 - The percentage of time in a week (where a week has 168 hours) that you did each activity
5. What else can you discover about the way you spend your time? Does anything surprise you? Is there anything you want to change? How would changing the time allocated to different activities impact on your life?

Think about a bar graph like “Importance of School.” If the highest score you can get is a 5, and there are 100 “yes” answers that are totaled and averaged to result in a score of 5, how many “yes” answers would you need to result in a score of 3? How many “yes” answers would you need to get 4.5?

Conduct a survey among your friends and family about how they spend their time each week.

1. Determine five typical activities many people do daily, such as eating, sleeping, watching TV, etc.
2. Pick 10 people who you will interview. You might want to focus on a specific group, like 14-year-old boy students who play soccer or female aunts, mothers, cousins and grandmothers.
3. Create a chart to sort the survey data you will collect during each interview; make the column headings represent your five typical activities and each row represent one of the people you survey.
4. Write down your predictions about what you’ll discover through your survey interviews.
5. Interview each person on your list, and put the number of hours they spend in a week in their row, under that column heading. You might have to ask them about their average time doing that activity each day and then multiply it by seven to account for a whole week. For instance, if your friend Sofia says she sleeps seven hours a night and there are seven nights in a week, put “49” under the column heading “Sleeping” in Sofia’s row.
6. Tally the results, using averages, to answer some of the following questions:
 - Of the people you surveyed, what activity do they do for the most hours in a week? What percentage of total hours in a week (where a week is 168 hours) does the average person surveyed do each activity? What about the least?
 - What is the mean for each activity?
 - What is the median for each activity?
 - Are you surprised by what you discovered?

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Mathematics, continued

Create a written survey of five questions attempting to get an answer to a question that interests you about your school, such as whether people like the food in the school cafeteria or whether people feel there are enough opportunities for pursuing the arts (including dance, theater and visual arts) in your school.

1. Make sure at least two of your survey questions can be answered with either multiple choice (like A, B, C or D).
2. Make sure at least two of your survey questions can be answered by selecting a number on a scale of 1-5 where 1 is one end of an extreme like "not at all" and 5 is the other end of that extreme like "very much" or "definitely."
3. Ask your teacher to help you make copies of the survey.
4. Write down your predictions about what you'll discover through your survey.
5. Distribute the survey to at least 10 students (the more the better). Have a pen or pencil ready in case they don't have one. Stand with each person while they complete the survey and take it back when they're done.
6. Now tally up the results of the survey, answering some of these questions;
 - Of the people you surveyed, what is the percentage of people who picked each answer of the questions which are multiple choice?
 - Of the people you surveyed, what is the average number picked for your 1-5 scale?
 - If you were going to make recommendations to your school's leadership based on this survey, what would you suggest?

Research the definition of statistics. Write a paragraph describing how scientists use statistics to account for variables in their research data.



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Social Studies

Investigate the provenance of one of the quotes posted in the classroom. This means you are researching where the quote originated: who said it, where you can find it in text, etc.

1. Write the quote and the person/group quoted down on a separate piece of paper.
2. Using the Internet or an Encyclopedia and other reference books at the school or local library, find information about the quote.
3. Write a paragraph about your quote. You may wish to include some of these types of information: Where and when did the quote originate? Was it first stated in the text of a book or an interview or a speech? What are some of the key ideas expressed "around" the quote?
4. If you can't find specific information, why do you think this is? What are some ways that quotes are recorded without being written down?

Investigate the person who wrote or stated one of the quotes posted in the room.

1. Write the name of that person down on a separate piece of paper.
2. Research that person using the Internet or the Encyclopedia and books at your school or local library.
3. Write a paragraph about that person. You may wish to include some of these types of information: what the person accomplished in his/her life that makes him/her "quotable"; what the situation or experience was that prompted this person to say or write this; what you admire about this person.

Using the three quotes displayed in the classroom, create a timeline showing when each quote was written/stated.

1. Put the date of the quote and the name of the person who stated this quote on your timeline.
2. Next, identify some of the major events happening around the time that quote originated. Place these on your timeline as well.
3. Below your timeline, write a sentence for each quote, hypothesizing about some of the reasons the quote occurred during its time. Do you think it was related to major events of the time?

Identify a person you have studied in your Social Studies class this year and consider the goals s/he set during his/her life journey.

1. Find a biography or autobiography about that person online or in your school or local library.
2. Review this text to locate examples of goals that person set for himself/herself during his/her life.
3. Write three of these goals down in a list, and briefly describe how this person did or did not accomplish these goals during his/her life. Did this person's goals change over the course of his/her life?

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Social Studies, continued

Imagine that students in 100 years are working on the Success Highways program. Now imagine that you are one of the people who is quoted in the program.

1. Write a paragraph explaining what you have accomplished in your life that makes you worthy of being quoted by others, describing why someone might want to quote you. Are you a famous athlete or scientist or politician? What do people admire in you? How have you changed the course of history with your accomplishments?
2. Now create your quote – the statement you make in your life that you'll be remembered by for all time.
3. Finally, write a few sentences about why you might make this statement; what will have changed in the world and in your life over the next 50 years to prompt you to say or write this?