



Thermo Fisher Scientific

# Junior Innovators

Challenge | A program of  
Society for Science



## Journalist Notebook

Imagine you are a freelance journalist with STEM expertise. You just landed three new assignments, each for a major STEM magazine! You will be writing scientist profiles of three Society for Science middle school competition finalist-level alumni, and today you're doing your research. Each profile is for a magazine with a unique focus, so the background information you need to gather will be different for each profile. For *Data & Design* magazine, focus on the student scientist's project design, methods and results. For *Future of Science*, address the impact and future research possibilities that can come from the student scientist's research findings. For *STEM Careers*, focus on the student scientist's background and their pathway to their STEM research.

From the Society's homepage, hover over Alumni and choose the Middle School Program/Broadcom MASTERS alumni page to get started. Then, choose a class of finalists and then click on their finalist book to read about their projects. Good luck and have fun!

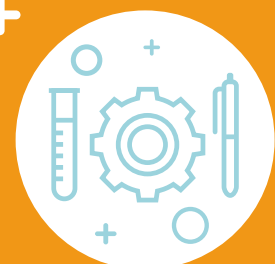
**DATA &  
DESIGN**



**FUTURE OF  
SCIENCE**



**STEM  
CAREERS**





## Data & Design magazine, Profile on Project Design



To get the background information you need to write this profile, choose the student scientist's research project that you think had the most interesting type of data or data-collecting method. Consider whether the data come from a unique place, whether the student had to create their own process or set of rules to solve their problem and whether they had to learn a new skill to do their research. When you find a project that you find interesting, use it to answer the following questions. Open the student scientist's project board to answer the following questions. Before you begin, write down the student scientist's name, grade, state and project title.

**Student Scientist's Name, Grade, State:**

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**Project title:**

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1. Read project background and give a one sentence overview of the project. What overall STEM field(s) (environmental science, computer science, chemistry, etc.) does this research cover? Describe how the research connects to each field.  

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2. What research question or engineering objective is the student currently studying? What is their hypothesis or predicted project outcome?  

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3. What data did the student scientist collect, and what method did they use to collect it? Were any special equipment, chemicals, or instruments used to collect the data? Explain.  

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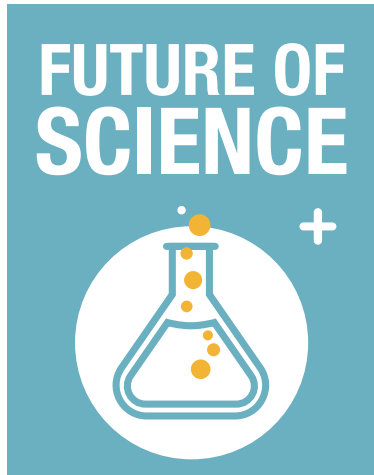
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4. How were the data analyzed (graphs, statistical calculations, etc.)? What was the stated research conclusion, and what evidence was provided to support it?  

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5. You're in luck! You've been granted a live interview with the student scientist you're profiling. Given the background information you've gathered, what additional questions would you ask?  

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## Future of Science magazine, Profile on Project Impact



To get the background information you need to write this profile, choose a student scientist's project that addresses an issue of interest to you. It could be a medical issue that you relate to, an environmental concern of yours, or a scientific question that makes you curious. Then open their project board to answer the following questions. Before you begin, write down the student scientist's name, grade, state and project title.

**Student Scientist's Name, Grade, State:**

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**Project title:**

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1. What issue is this project addressing, and how is the project addressing it? (For example, is the project developing and testing a prototype or answering a relevant scientific question?)

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2. What were the results of the project? What specifically did the student scientist discover while conducting their research, doing their engineering design or creating their invention?

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3. What impact could this project have? List specific populations that might be affected and how.

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4. Based on the student scientist's results, what other related questions do you have? How could these questions be explored in a future research or engineering project? Come up with at least two future research questions or engineering objectives that make sense based on the student scientist's work.

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**STEM Careers magazine,  
Profile on Pathway to a Project**



To get the background information you need to write this profile, choose the student scientist you relate to the most. That student might share your background or have a similar hobby or maybe lives in the same state. Before you begin, write down the student scientist's name, grade, state and project title.

**Student Scientist's Name, Grade, State:**

**Project title:**

1. What inspired or motivated the student scientist to pursue their research project? Explain.  

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2. What did you learn about their passions or interests outside their core research area?  

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3. Do they name a mentor or important person who helped them? If a mentor is not mentioned, think about who you might have asked for help if doing a project on this topic. What field do they work in and what kind of background do they have?  

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4. What highlights and challenges did they face while completing their research, and how did they overcome those challenges? If they don't mention one, can you imagine a challenge they could have faced?  

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