Science Bound is Iowa State University's premier pre-college program to empower Iowa students of color to pursue degrees and careers in STEM (science technology engineering and mathematics) fields. We engage middle and high school students from Des Moines, Denison, and Marshalltown, Iowa. To participate in our nine-year program, students begin when they enter eighth grade and graduate from Science Bound once they graduate from college.

“How to give to SB” – if there is a link that is supposed to go there – it doesn’t work.
“In the spotlight” – update with Creighton (SB Alum article from annual report)
“From our Director” – best to update when new director comes in with updated message.
5 New pieces to replace old ones
1. “SB Puts Zoaryan on Secure Path for Future Success” (spring newsletter)
2. “Parent Connection: Meet the Rangels” (spring newsletter)
3. “Corporate Partnerships” (annual report)
4. “A Focus on Academic Excellence” (annual report)
5. NEW: ISU SB internships/jobs during summer 2017
Our program
The National Science Foundation continues to call for an increase in the number of young people from populations that are underrepresented in the sciences who go on to technical careers.

Science Bound is Iowa State University’s pre-college program designed to meet our state and national need for a technical workforce by increasing the number of ethnically diverse Iowa students who earn ASTEM (agricultural, scientific, technical, engineering and mathematics) degrees. Our program draws students with potential from middle and high schools in Des Moines, Denison, and Marshalltown, Iowa.

Participation
Students are invited to participate during the end of their 7th grade year. If space is available, some students are also invited to participate the first semester of their freshman year.

Organization
In-service teachers champion the program at the district level. Iowa State University staff provide the vision and support for program implementation.

The ISU commitment
Iowa State University provides core administrative and financial support, including scholarships.

Benefits
Students who successfully complete the high school program, meet admission requirements to Iowa State University and pursue a technical degree at ISU receive a FULL TUITION SCHOLARSHIP from the university. Research also indicates that students in the program develop more positive attitudes toward science and improve academically.

Requirements
Eighth grade preparatory program participants must satisfactorily complete a science fair project and an essay that demonstrates a desire to give to, and learn from. High school participants must maintain a grade point average of at least 3.0, participants at all levels must meet participation requirements, and present a satisfactory oral justification yearly for continuation.

Activities
Regular meetings with teachers and visits to the Iowa State campus are at the program’s core. Additionally, students participate in summer academic programs, overnight retreats, and study tables.

Other components
Teacher enrichment opportunities provide resources and professional development. And, parental workshops strengthen the partnership between Science Bound and the families it serves.

The results
Science Bound has offered scholarships to more than 500 program graduates. More than 160 Science Bound graduates are expected to be on the Iowa State campus in Fall 2016. 113 Science Bound grads now hold degrees from Iowa State. The program boasts a number of masters graduates and a Ph.D. in biology.

“Benefits”
update the link to 2017 version of technical degree at ISU (only technical degree that needs updated)

“The Results”
update the # of SB graduates on campus for Fall 2017
Program Design

Iowa State University’s Science Bound is a nine-year, informal science, technology, engineering and mathematics (STEM) program designed to prepare ethnically and racially diverse Iowa youth to earn degrees in technical disciplines.

Science Bound identifies middle school students with potential in math and science, then guides and supports them through their earning of a bachelor’s degree in a STEM field. Science Bound employs a 4-way collaborative model that encircles students in ongoing support, guidance, and encouragement from Iowa State University (ISU) faculty and staff, corporate STEM professionals, school district teachers and administrators, and parents and families of participants.

This model provides informal STEM education with strong ties to the schools. The school ties provide a home base with which students and families are familiar, where a strong emphasis on academic preparation and excellence can be cultivated, and natural venues for students and families to access higher education can be developed. The program’s activities are focused on:

- Exposing students to STEM disciplines and careers.
- Providing students with personally engaging experiences with STEM content.
- Equipping students with the academic knowledge/skills and self-efficacy to navigate and negotiate higher education.

Much of Science Bound’s student development success hinges on its culture of high expectations expressed in this five-step diagram (Hargrave, 2015):

Change photo on top (there is current ones with the updated dean of HS and director of SB)

Replace images with the ISU colored ones. (Files already made in JPEG version.)
Meet our Staff

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Des Moines Public School District

The Science Bound and Des Moines Public Schools partnership began in 1998 as a pilot program, then became a formal program in 1991 with funding from the National Science Foundation. Each year, approximately 300 students in 15 schools participate in the Des Moines program.

Schools and Contacts
Activities
Calendars

Use paragraphs from annual report (2017) for each district.

Denison Community School District

Launched in 2007, the program is a partnership between Iowa State University, Denison Community School District and Farm2Field Foods through Smithfield Foods.Learners to Leaders.

Schools and Contacts
Calendars

Update district calendars for upcoming fall 2017 semester.

Marshalltown Community School District

Launched in 2006 with funding from Iowa State University through NASA, the Marshalltown program is a partnership between Iowa State University, Marshalltown Community School District, and area businesses. The program continues with local support from Emerson Process Management, Fisher and the Mechdyne Corporation.

Schools and Contacts
Calendars

Request More Information
Both the “a project” and “essay” pages need to reworded to the suggestions so the banner matches both. “a project” needs more content to resemble “essay”

- Bulletins at the end need to reworded and linked with the existing files of the same name
Science Fair Project

Science and Technology Fair

Science Fair Project Rules and Guidelines

I. General Overview, Project Rules and Guidelines

Science Fair projects should be original. NO TEAM PROJECTS or DEMONSTRATIONS, MODELS OR KITS are allowed.

Your science fair project must demonstrate use of the scientific method.

The student researcher is responsible for all aspects of the research project, such as selecting needed adult supervision, obtaining necessary approvals, following the rules and guidelines, and doing the experimentation, data analysis, etc., involved in doing the project.

The SCIENCE BOUND teacher is ultimately responsible for the health and safety of the student doing the research, and the humans or animals used as subjects. The teacher is responsible for ensuring that the student’s research is eligible for entry into the fair. Before experimentation begins, the SB teacher must review and approve all projects involving human subjects, vertebrate animals, potentially hazardous biological agents and hazardous chemicals, activities or devices.

Projects that are demonstrations, library research or informational projects, exploration models or kit building are not appropriate for the fair.

All science fair projects should be conducted using the scientific method, which is a process of experimentation used to explore observations and answer questions. It can be used to discover cause and effect relationships—to learn what happens to something else when just one thing changes. The scientific method includes

- a question
- an hypothesis
- the experiment design
- conducting the experiment
- analyzing the data
- drawing conclusions
- evaluation of the outcomes of the experiment

There should be no team presentations.

II. How to Produce a Successful Project

1. Pick your Topic:
   Get an idea of what you want to study. Ideas might come from hobbies or problems you see that need solutions. Study a topic that interests you. If you are bored with the
If space is available, some students are invited to participate in Science Bound the first semester of their freshman year of high school. At this level, students meet weekly with Science Bound high school teachers and visit Iowa State University three times every year to meet participation requirements. Participants must maintain a grade point average of 3.0 or higher and are required to present a successful oral justification yearly for continuation. Science Bound students must also participate in a summer academic or science, technology, engineering, or mathematics career experience. Des Moines Students entering the 9th grade MUST attend Learn and Earn and may attend Learn and Earn through the 11th Grade.

- Oral Justification Requirements
- Career Exploration Project
- Career Exploration Websites
- Qualifying Degree Programs
Oral Justifications

- Adding a small paragraph for the video content

Career Exploration Websites

- Some links need to be updated
- JOB PROFILES (website that it leads to is in a different language)
- Career Overview (website opens up to goodadadv.com)

Qualifying degree programs PDF is up to date (2017)
Introductory text explaining the position that seniors will be at. Another sentence or two on how to utilize the resources below to help them with the process.

During the senior year, students and families participate in Countdown to College.

- Oral Justification Requirements
- Career Exploration Project
- Career Exploration Websites
- Financial Aid
- Qualifying Degree Programs
- ISU Admissions
- Senior Oral Justification Preparation Video
- FAFSA

Countdown to ISU should be a paragraph fused with the high school senior page, and the
Even though most Science Bound graduates will have been on the Iowa State campus 20 times before they attend ISU, freshmen participate in a seminar program designed just for them. The Science Bound seminar covers such topics as time management, goal setting, effective presentations, study habits, and more.

- ISU Calendar
- Financial Aid
- FAFSA
- Qualifying Degree Programs

Add ISU paragraph from annual report (2017)
Role of Science Bound Families

As parents and family members, you play an important role in your Science Bound student’s academic success. That is why Science Bound wants you throughout the time that your young person is in the program through:

- a yearly program kick-off where parents make contact with district teachers and IU Staff
- bilingual communications access for ease of understanding the program and its requirements
- two parent workshops each year where parents can share their insights and learn how to support the academic success of their students
- regular written communication including twice-yearly student progress reports, web page and social media, and news updates, to ensure that you know what is happening in your area.
- a college-going workshop series where students and families learn about the financial and university resources
- dedicated staff who are available to answer questions and who define the programming in the district.

We'll be looking for you at a Science Bound event soon!
"Be an active part of the program. Attend meetings and activities, and volunteer." – Penny Edmonds

Tips for Parents

Parents & Families

As a parent or guardian of a Science Bound student, no one is more important for your young person’s success than YOU.

Research shows that one of the most important factors that affect a child’s performance in school is parental involvement. If you want to be involved, there are some things you can do to make this relationship positive and productive. Check out some tips for ways you can boost your child!

Tips for parental involvement (PDF)

How you can help

Science Bound always welcomes volunteers. If you wish to do so, please contact:

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No Edits
Rename to “For Teachers” instead of just Teachers on the yellow menu.
Under Supporters tab, switch from partnering with science bound first, and then the supporters.

Supporters page also needs updated logos (Denison) add space to Emerson and Fisher (Marshalltown)
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No Edits