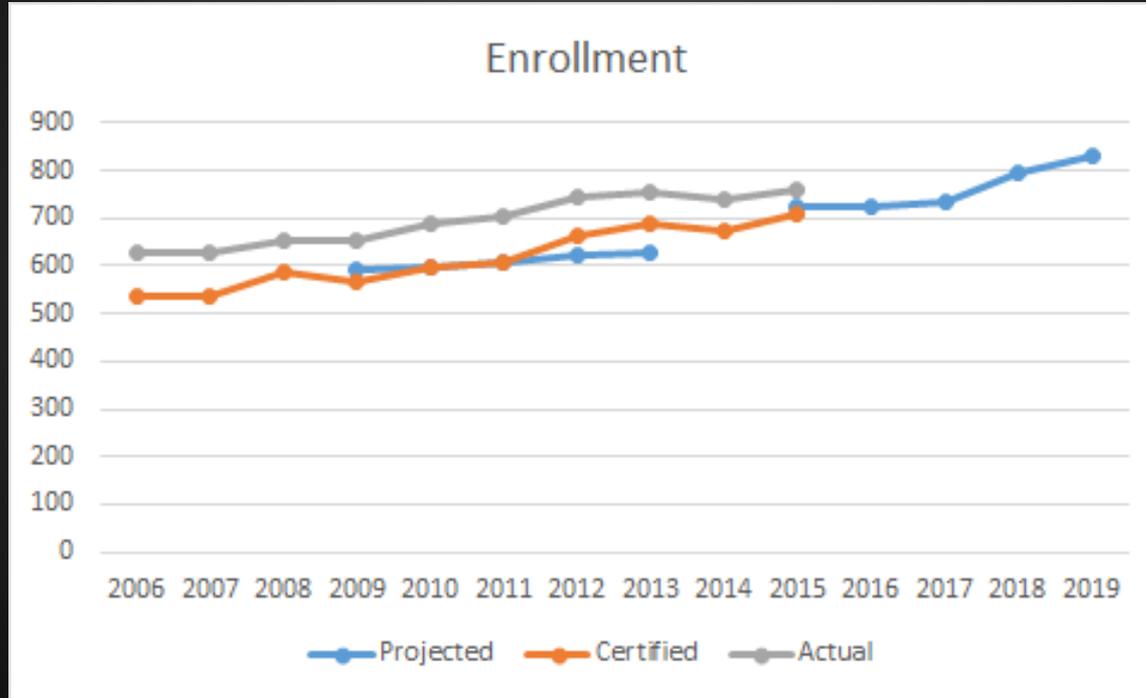


Benefits of School-Business Partnerships

Rock Valley - Rocket Manufacturing
Mason City Lincoln Intermediate

“We are limited not by our abilities but by our vision.”

Rock Valley-A Growing Rural District



All Rock Valley Students Will Be...

Quality Producers

Effective Communicators

Complex Thinkers

Collaborative Community Contributors

Self-Directed Learners

Knowledgeable Persons

Iowa Core: 21st Century Skills

- Employability

- Work productively with others
- Learn various roles and responsibilities
- Flexibility
- Leadership skills...including integrity, ethical behavior, social responsibility
- Initiative/Self direction
- Productivity/accountability

1st Meeting

What should a graduate of the industrial technology program be able to do?

What skill set are you looking for in a new hire?

What would you like to see in our program?

Partnering together, what investment might you be willing to make?

Soft Skills

Meet deadlines
Teamwork
Critical Thinking
Communication
Collaboration
Problem Solving

Time Management
Responsibility
Self-discipline
Citizenship
Initiative
Flexibility

Iowa Core: 21st Century Skills

- Employability

- Work productively with others
- Learn various roles and responsibilities
- Flexibility
- Leadership skills...including integrity, ethical behavior, social responsibility
- Initiative/Self direction
- Productivity/accountability

21st century skills are informed by
current/future workforce needs

Follow-up Meetings

7 meetings over 2 ½ years

Focus on how we can help businesses

Needed training for staff and students

Prerequisite needs

Short & Long-term planning (5 yr plan)

Curriculum Planning

Board

Last meeting about donations/funding

Rocket Manufacturing Mission

“To create a self-sustaining program that will provide opportunities for our students to obtain hands-on, real-world learning experiences.”

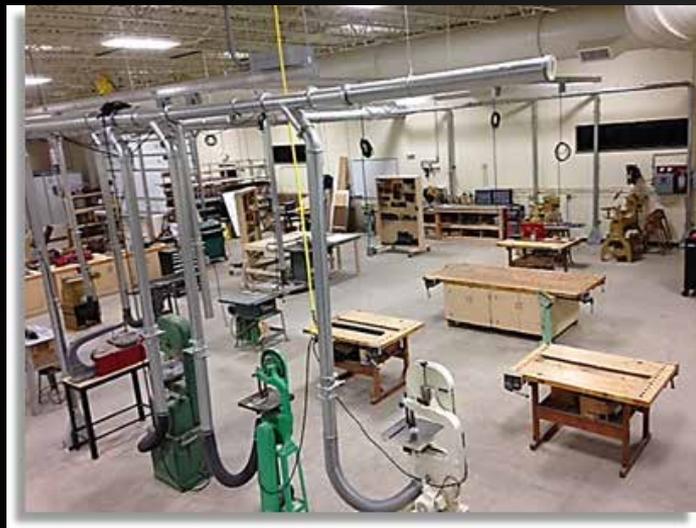
What is Rocket Manufacturing?

A fully functioning, student-run manufacturing business.

80% of work is subcontract work for local businesses

20% other local entities





**10,000 SQ. FEET
FACILITY**



Product Examples



Problem-Based Learning

Students responsible for their own learning

Ill-structured problems

Use a wide range of disciplines

Collaboration is essential

Learning must be applied back to the problem
with re-analysis and resolution

Self and Peer assessment

Problems must be valued in the real world

Existing Community Partnerships

Siouxland Fabricating

Siouxland Machine

Valley Machining

Kooima Company

Post Equipment

Rock Industries

VH Manufacturing

TCS

Terry's Repair

Custom Steel

Bomgaars

RVEDC

NCC

Productivity Inc.

State Steel

Exact Job Boss

Benefits

Problem-Based Learning

21st Century Skills

Employability Skills/Soft Skills

Closing-the-Gap

Community Building

Citizenship

IA Workforce Development-STEM Careers

Budget Analyst

Financial Analyst

Risk Management Specialists

Computer Information Scientists

Computer Programmer

Computer Software Engineer

Database Administrator

Software Quality Assurance Engineer &
Tester

Architect

Physical Scientist

Market Research Analyst

Industrial Ecologist

Mechanics

Tool & Die Maker

Welder/Cutter, Solderer & Brazer

Welder, Cutter, & Welder Fitter

Solderer & Brazer

Welding, Soldering, and Brazing
Machine Setter/Operator

Engineering Manager

Engineer

Drafting

Impact on Community

Local Business

Trained Workforce

Better Prepared

Workforce

Efficiency of Business

Cost of Training

City

Future Citizenry

Citizenship

Future Entrepreneurs

Economic

Development

Rocket Manufacturing Will...

Capture the interest of students

Decrease at-risk & Increase post-secondary enrollments

Maximize class to career skill transferability

Prepare hands-on learners for a living wage

Enhance the relationship between industry, school districts and
the community

Keep jobs in our community

Increase workforce readiness

Address the skills gap

Promote advanced manufacturing careers

Keys to Success

Be/Find a cheerleader

Business leaders have influence

Partnerships must be mutually beneficial

Can't be about money

Focus of partnerships must be on enhancing
the future of kids

Students are capable of amazing things!

Lincoln Intermediate

- Mason City, Iowa
- 5th and 6th grade
- Approximately 560 students
- 50% free and reduced lunch
 - 18% IEP



@Lincoln_MCCSD

The Story of Lincoln Intermediate

- Grants over 6 years from Iowa STEM
 - FLL and VEX Robotics
 - STEAM school
 - STEM RLE
 - Business partnerships



Interdisciplinary STEAM projects

5th grade

Trimester 1:
Adaptations

Trimester 2:
Gravity

Trimester 3:
Shark Tank

6th grade

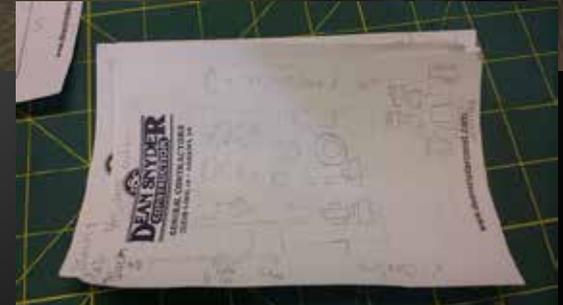
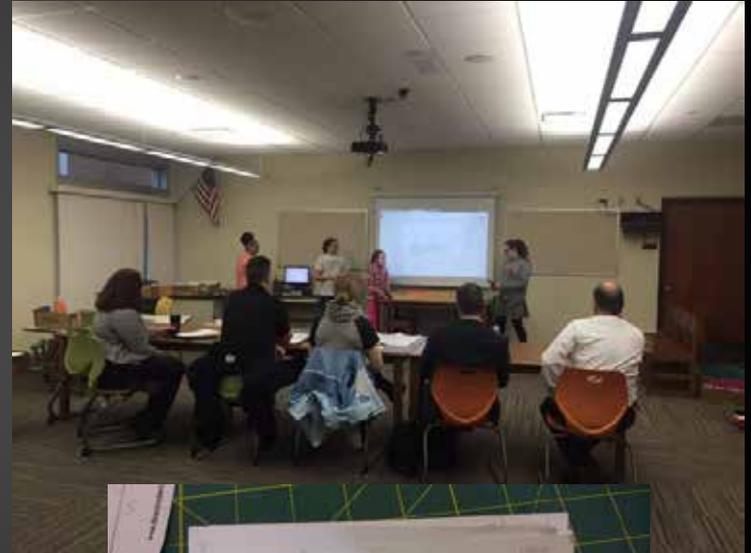
Trimester 1:
Omnivore's Dilemma

Trimester 2:
Energy Fair

Trimester 3:
The Running Dream

WWA

Redesigned Learning Environment



Interest Business Partnerships

Looking towards the future...through voice and choice

Lime Creek Nature Center

Red Lab Technologies

Dealerbuilt

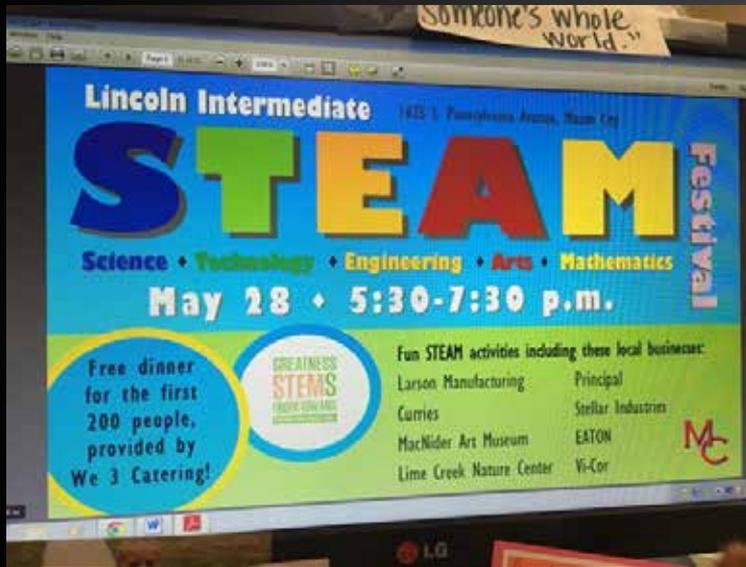
IJAG

4-H Extension Office

Bergland and Cram

Each business proposed a problem they encounter in their daily work day, students designed a solution to the problem and presented to an authentic audience.

STEAM Festival



- 3 years
- Over 25 businesses participating
- Open to the community
- Hands-on
- Bridges the application from classroom to real world

Back to School Project

District Lens

Mason City Schools is working to build collaboration with business partnerships to foster the skills needed for employability.

Business and community members participate in a half day of school as students to learn what is happening in the classroom.

District leaders and business leaders debrief to share what they saw and what skills could be incorporated in the schools to increase employability.

Benefits of Partnerships

- Learn about future careers
- Collaboration
- Experiences beyond the classroom
- Application
- Skill building
- Ownership



**“ALONE WE CAN
DO SO LITTLE;
TOGETHER WE
CAN DO SO MUCH.”**

- Helen Keller

*“If you want innovation you
have to invest in people.”*