Inspire Middle School Students to Pursue STEM

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Problem

Not enough STEM graduates to meet the needs of a growing industry[1]

Solution

Inspire middle school students to pursue STEM through an interactive program

Subjects

54 sixth grade students at Elm Park Community School

Activity Setup

- Presenters: Matias Campos Abad (AE), Joseph Beck (CS), Nicole Franco (RBE)
- Participants spent 20 minutes at each station and then rotated

Program Layout

Introduction talk
- What is STEM?
- Importance of STEM

Aerospace/ Chemistry
- Phase change demonstration with dry ice
- Aerospace careers

Computer Science
- Computer science relating to everyday life

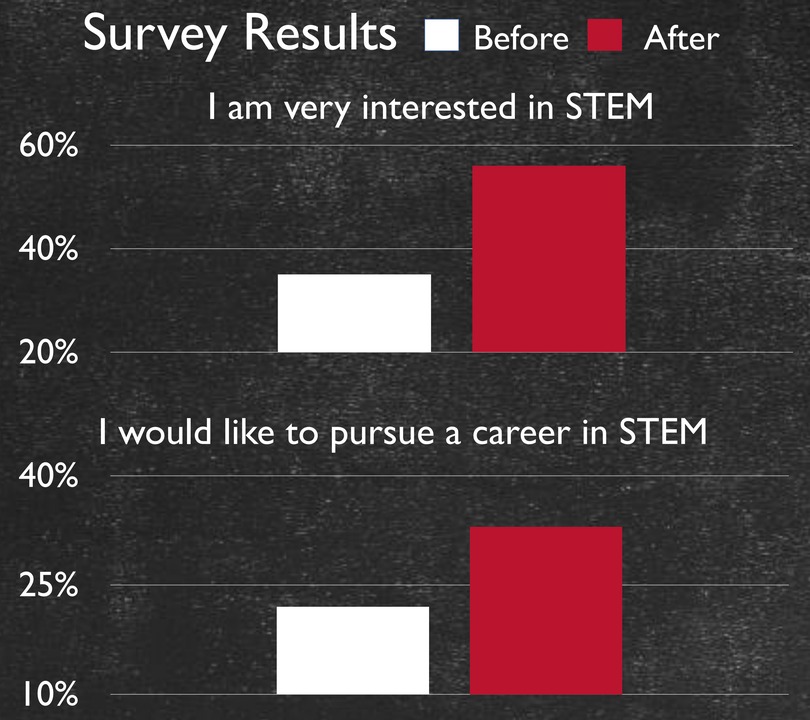
Robotics
- Lego Mindstorms building and programming

Conclusion talk
- Overlap of STEM field
- Why STEM is a good choice

Assessment

Teachers distributed a three question pre and post survey. The survey assessed student's interests in STEM, likelihood of a STEM career, and opinion on importance of STEM. We received 51 pre and 48 post survey responses.

Survey Results



Conclusion

Our program effectively engaged and educated middle schoolers in STEM.

Acknowledgements/References

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1. Hughes, B., Mona, L., Stout, H., Bierly, M., & McAninch, S. (06/2015). An integrativeSTEM approach to teaching solar energy collection. *Technology and Engineering Teacher, 75.1*(p26)