

# Encouraging Students from Disadvantaged Backgrounds to study STEM

*How do we overcome the idea that “STEM is not for me”*

Jodie McGeehan

PT STEM

St Andrew's RC Secondary



# Our School and STEM Capital

- East-end of Glasgow
- Current roll of 1837 students in S1 – S6
  - 61% of students from SIMD 1 and 2
  - 44% of students qualify for free school meals
- Don't see STEM as part of their everyday lives.



# School Community

- Teacher buy-in whole school
- Parental engagement
- Highlight Transferrable skills
- Make STEM fun
- Achievement – CELEBRATE!



# STEM Ambassadors

- UK wide
- Provides role models for young people and an opportunity to find out first hand about different areas in STEM
- STEM Ambassadors in our school have:
  - Given mock interviews for students
  - Attended career fairs
  - “Speed Networking” events before subject choices
  - Ran interactive workshops of whole year group
  - Answered student questions both in person and online
  - Been involved in school events: STEM Fair, Women in STEM day, British Science week ...
- *Every student in St Andrew’s will have worked with a STEM Ambassador at some point in their school career.*



# STEM Mentors

- Mentor programme set up with school and previous STEM engagement opportunities.
- Supply challenges and projects for each year group
- Students investigate STEM in context
- Have a contact within company to seek advice/help
- Present their ideas and findings



# Education and Industry Partnerships

- Teacher and student placements
  - Teachers and companies to gain a better understanding of how we connect and how we can support young people
- Students said they enjoy:
  - Teamwork
  - Researching new topics
  - Working with mentors from companies
  - Company visits
  - Opportunities to do something different
- Nuffield Research Placements
  - Nuffield is UK-wide.
  - 90 placements in Scotland with various other STEM Learning partners coordinating a total of 1000 placements across the UK.
    - <https://www.stem.org.uk/research-placements>
  - Students get hands on experience, responsibility and applying their learning.



# Young STEM Leader Award

- Most impactful so far

*Learning for young people by young people*

- Training for staff to be Tutor Assessors
- STEM across the school
- Students lead in an area of interest to them and carry out activities/events including:
  - STEM Club/ Coding club/ Numeracy Club
  - Women in STEM
  - STEM Fair
  - Classroom visits and Primary visits
  - Where is the STEM in that?



# Take away message

- Exposure to STEM is key
  - STEM activities
  - STEM competitions
  - STEM talks
  - STEM Ambassadors
- You don't need all the answers
  - investigate and design together, big part of 'real' STEM
- Have fun and Celebrate!

