# DEVELOPING 14-18 YEAR OLDS' INTEREST AND PARTICIPATION IN PHYSICS BY TRAINING THEM TO DELIVER OUTREACH TO PRIMARY SCHOOL CHILDREN



#### STRUCTURE

- BACKGROUND
- How the outreach model was developed
- SAFETY AND TRAINING
- Benefits to students and the community



## SCIENCE OUTREACH - BACKGROUND

• Most Public (Private!) schools are set up as charities and are subject to a "legal requirement that [they] must be able to demonstrate that its aims are for the public benefit if it is to be recognised and registered as a charity in England and Wales."

UK CHARITY COMMISSION, 2024



## SCIENCE OUTREACH - LIMITATIONS TO OVERCOME

- OBSTACLES TO DELIVERING SCIENCE-BASED EVENTS IN SCHOOLS:
  - STAFF AVAILABILITY
  - SPACE
  - DISRUPTION TO LESSONS



#### SCIENCE OUTREACH - FINDING A VIABLE SOLUTION

- When older students work with Younger Children:
  - RELATE WELL TO WORKING WITH PEOPLE CLOSER TO THEIR AGE
  - INTERACT MORE FREELY
  - BENEFIT FROM EXPLANATIONS PUT INTO WORDS THEY USE

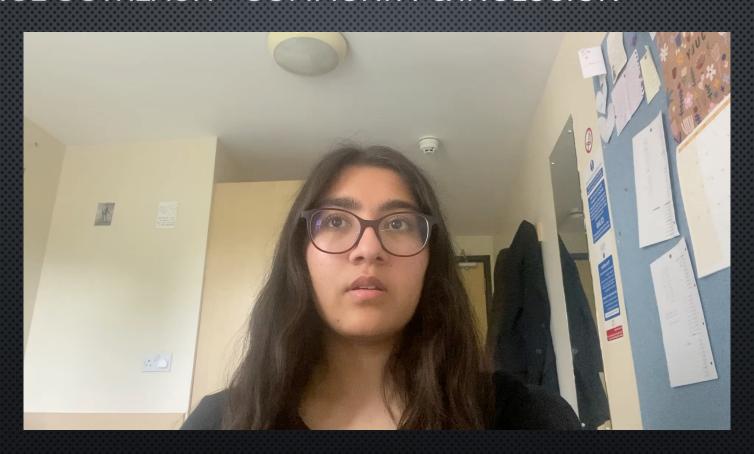


## SCIENCE OUTREACH – DEVELOPING THE SOLUTION

- IT TAKES A FEW YEARS TO BUILD THE CULTURE OF TRUST AND OPENNESS NEEDED
- WHEN YOU GIVE YOUNG PEOPLE THE OPPORTUNITY TO TAKE ON RESPONSIBILITY, THEY STEP UP TO THE CHALLENGE



# SCIENCE OUTREACH - COMMUNITY & INCLUSION



## SCIENCE OUTREACH - GROWTH

- WORD OF MOUTH BUILT EXCITEMENT ABOUT THE EXPERIENCES ON OFFER
- STUDENTS MOVED INTO TRAINING ROLES
- As the programme expanded, students took on planning, development, logistical and marketing roles
- Defined student leaders acted as a COMMUNICATION CHANNEL



# SCIENCE OUTREACH – TRANSFERABLE SKILLS



## SCIENCE OUTREACH - SAFETY

- DIRECTED WORK FOR EACH "FIRST ENCOUNTER"
- HANDS ON PRACTICE
- ASSESSMENT AND (POSITIVE) FEEDBACK
- STEER PEOPLE TOWARDS THEIR LEVEL
- DEVELOPMENT THROUGH MENTORING

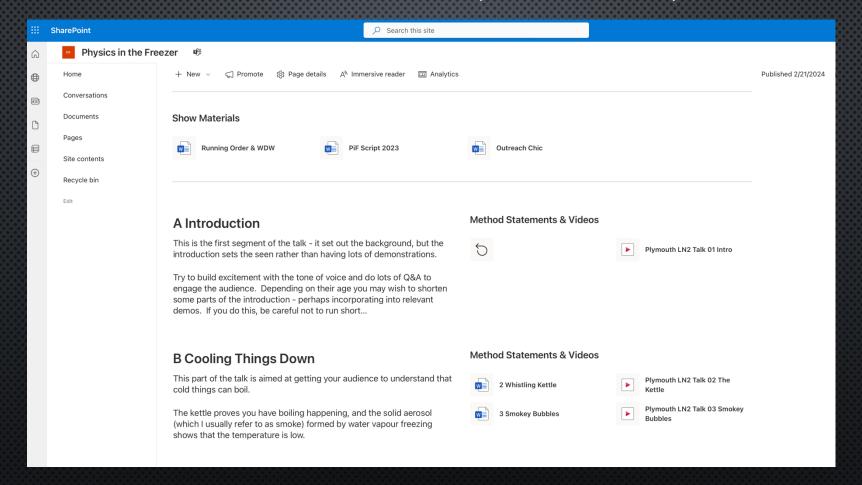


## SCIENCE OUTREACH - PRESENTER TRAINING

- LADDERED APPROACH ASSIGNMENTS GREW
  IN COMPLEXITY AND RESPONSIBILITY
- RESOURCES, RESOURCES!
- REVIEW PERFORMANCE AND CAPABILITIES
- FEEDBACK MUST ALWAYS BE CONSTRUCTIVE
- ROLE PLAY FOR ONE-TO-ONE INTERACTIONS
- DEVELOPMENT THROUGH MENTORING



## SCIENCE OUTREACH – RESOURCES, RESOURCES, RESOURCES!



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## SCIENCE OUTREACH - BENEFITS

- PRESENTING SKILLS
- PRACTICAL SKILLS
- OTHER TRANSFERRABLE SKILLS
- CONFIDENCE
- REMAINING ENGAGED WITH SCIENCE



# SCIENCE OUTREACH – KEEPING INTEREST IN SCIENCE ALIVE



#### SUMMARY

- You must invest time in training
- INSTILL A SENSE OF A SHARED GOAL
- Don't underestimate students' ABILITIES
- ENSURE YOUR STUDENTS EXPERIENCE TANGIBLE BENEFITS



#### REFERENCES

SLIDE 3: THE ADVANCEMENT OF EDUCATION FOR THE PUBLIC BENEFIT, *THE CHARITY COMMISSION*, 1 JULY 2024

HTTPS://ASSETS.PUBLISHING.SERVICE.GOV.UK/MEDIA/65254203244F8E000D8E7323/THE-ADVANCEMENT-OF-EDUCATION-FOR-THE-PUBLIC-BENEFIT1.PDF