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Conference or Workshop Item

Title: Enhancing student employability skills through partnership working in STEM outreach: the University of Northampton approach

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Enhancing student employability skills through partnership working in STEM outreach: the University of Northampton approach

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The University of Northampton
*Leicestershire Education Business Company

96%
Student
Employability*

*Source: Hesa Destinations of leavers from Higher Education (DLHE) Survey 2011/12 July 2013, compared to full university status HEI's for full time study first Undergraduate degree leavers.



WE ARE NORTHAMPTON.AC.UK

TRANSFORMING LIVES + INSPIRING CHANGE

University Strategic Plan 2010-2015

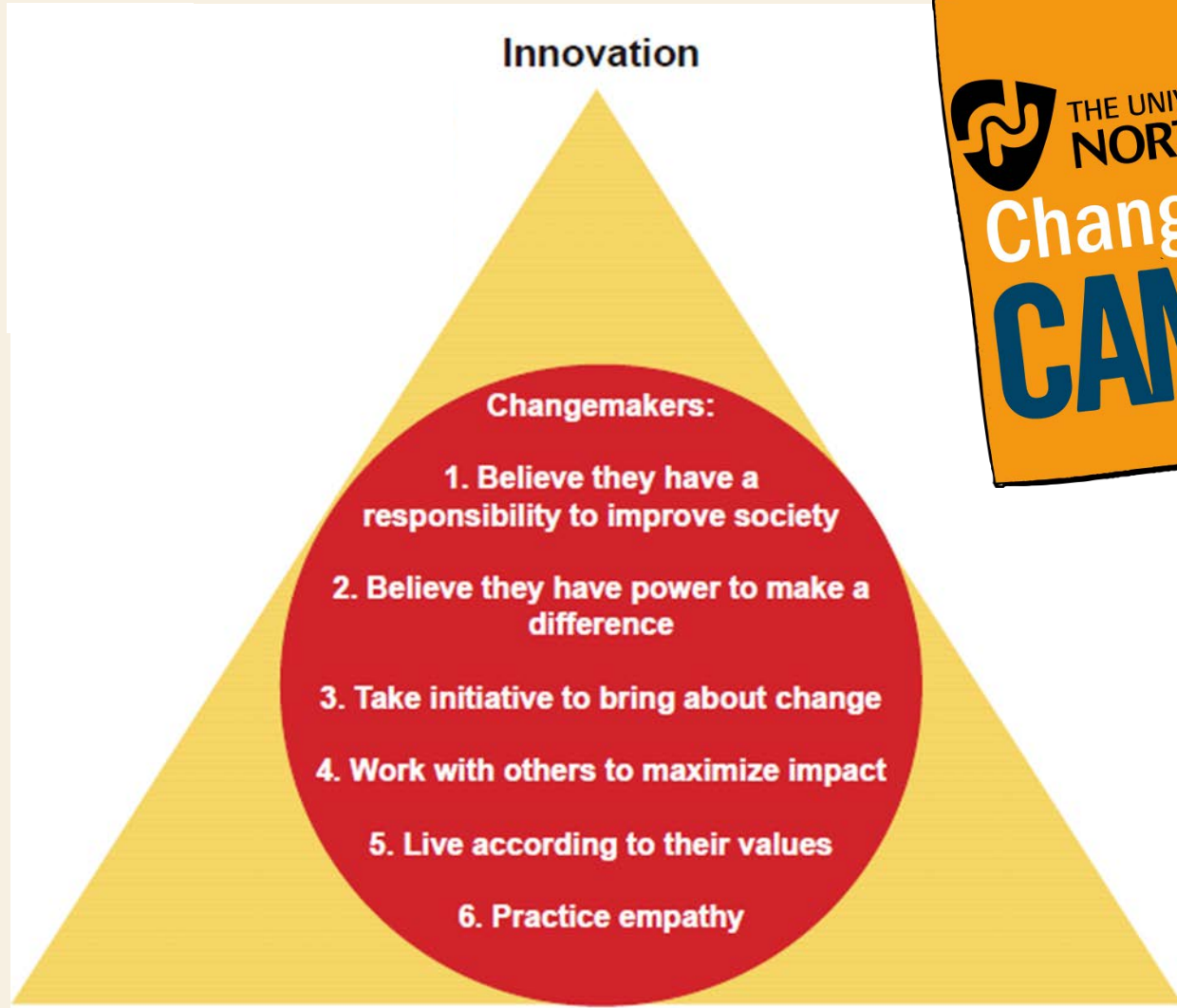
“Raising the bar”

The University Mission is to
“Transform lives and inspire change”
whilst its values include:

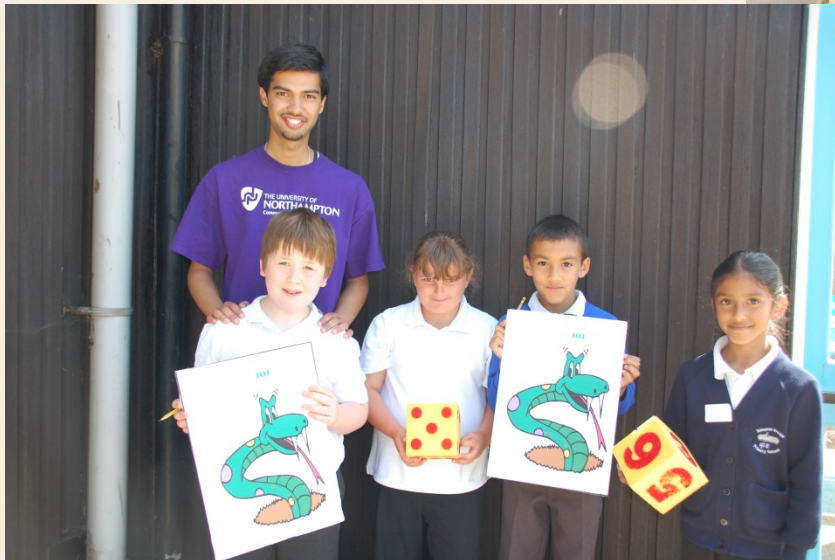
- A student experience of the highest quality
- Valuing diversity, inclusion and equality
- A culture of empowerment
- Innovation



Changemaker Campus since 2013



A decade of STEM experience.



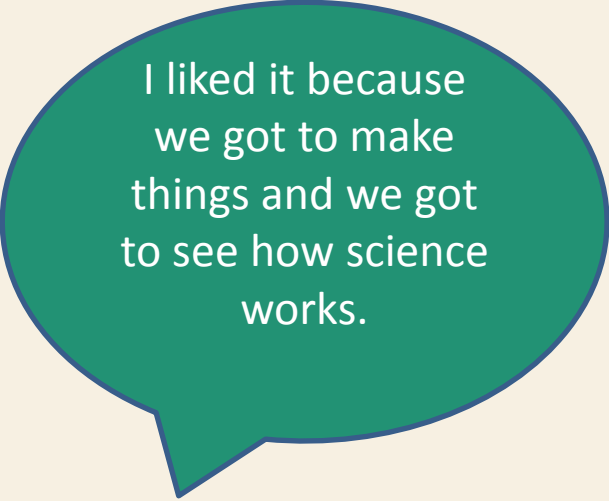
...across a range of STEM disciplines.

- *Lab-in-a-lorry* - 2009, 2010
(Chemistry/Physics);
- *Be.SwitchedOn* - 2010, 2011
(Computing); *Be.Biological* - 2010,
2011, 2012 (Biology/Health);
- *Darwin Day* - 2010
(Health/Psychology)
- *Junkbots* - 2010-2013
(Computing/Wastes Management).

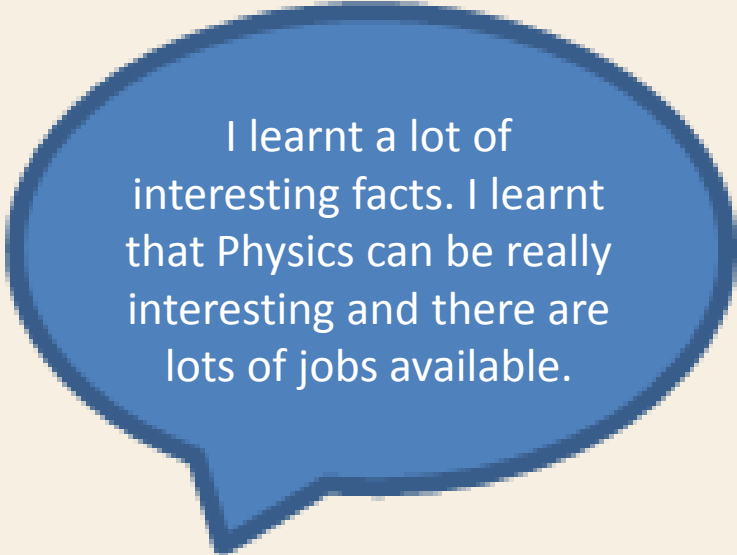
Promotion of diversity and inclusion:
Award-winning commitment to “Women
into Science and Engineering (“WISE”)
since 2010.



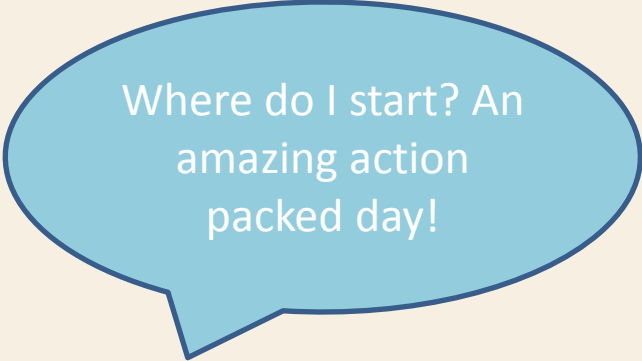
Participant feedback.



I liked it because we got to make things and we got to see how science works.



I learnt a lot of interesting facts. I learnt that Physics can be really interesting and there are lots of jobs available.



Where do I start? An amazing action packed day!

School students, 2011-2013

The value of student volunteering

- Students bring talent, time and enthusiasm
- a new demographic - broadening diversity
- Student volunteers challenge misconceptions and are positive ambassadors for their University
- Student volunteers gain confidence,
- skills,
- and high levels of satisfaction
- Students can try new things to clarify career options

Brewis, Russell and Holdsworth, 2010.

And what students think...

I have gained an appreciation of being able to apply and impart my knowledge to younger students.

Personally, I feel that I have developed in terms of my confidence, creativity and science-based skills. Working with STEM has further reinforced my passion for science.

Working with the children was amazing. Showing them that science was fun as well as interesting and getting them to interact with the experiments we did gave me an immense sense of achievement.

Being a STEM Champion has helped me improve my communication skills considerably. I believe I have enhanced my skill set.

Student STEM Champions, 2012/13

Cross-University Steering Group - Aims

- planning, co-ordination and promotion of STEM activities
- networking opportunities for students, staff, schools and community groups interested in STEM
- a single point of information for schools and STEM Champions
- promote interest and aspiration in STEM in local schools
- increase University student identification with their STEM subject
- provide University students with a coordinated programme of training to develop their skills (response to NSS 2011, 2012)



Coordinated training – gaining skills and confidence

- Working successfully with children and young people
- Safeguarding
- Benefits of being a University STEM Champion
- Identifying skills needed to be a good University STEM Champion/
identifying the skills gained through being a University STEM Champion



Coordinated training – networking and employability

- Recognition by the University - ie Changemaker Award
- Opportunities for peer mentoring and staff/student mentoring to develop student-led STEM workshops
- The University STEM network of staff and students
- Becoming a National STEM Ambassador enhancing employability



Feedback on training

I now have a better understanding of employability and how it will help me

Very useful to see how National STEM fits into the University

It has helped me to be more confident



University STEM Champions, 2014.

Metrics relating to events and impact, 2012/13

Years 3-6	Years 7-11	Years 12 - 13	Schools involved ("WP")	Student numbers from "WP" schools
2030	392	140	62 (12)	470

2562 school students in total; 18.3% from WP target schools

Student achievements 2013

Active STEM Ambassadors	National STEM recognition	Withdrawals cf. University benchmark	Progression cf. University benchmark	Graduation cf. University average
73	42	-1.3%	+5.1%	+0.2%

TRANSFORMING LIVES + INSPIRING CHANGE

Meet Aleksandra



BSc Computing, 2011.

- Women into Engineering, 2010, workshop leader.
- “Redefining Women into IT” project, 2011, workshop leader.
- International Women’s Day, 2013, careers workshop.

Aleksandra inspired



Aleksandra transformed



Aleksandra employed



Next steps

Website

- Student-designed (and maintained) portal for students, staff and schools, identifying:
 - Training
 - CPD
 - Workshops
 - Events

Track alumni careers

- Data set is still small at the moment
- Longitudinal study of the impact of STEM work is needed



- STEM volunteering is valued by all participants
- STEM volunteering provides enhanced experiences in schools and HE
- We need to ensure more systematic data collection in order to evaluate the impact on our students.

