



A Question of Taste

Using PCR to investigate human evolution

A hands-on workshop for post-16 biology students

“The researchers delivering the workshop were great at explaining, assisting and encouraging.”

“It was great to be able to work with my own DNA!”

“Very interesting and now I actually understand the PCR process...”

“Interesting and engaging activities that were pitched at the correct level”

January - April 2017

In partnership with:



Manchester
Academic Health
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Strategic advice



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Research



Learning & development

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January – April 2017

This one-day workshop explores the evolution of an unusual trait, where some people taste a particular chemical as being horribly bitter, while others can't taste it at all. Why have we evolved these two responses? What evolutionary advantage could each have given us?

Students work with their own DNA to classify themselves into one of three common genotypes and then compare their DNA sequence with that of a chimpanzee, helping them to understand convergent evolution between the two species.

The workshop is delivered by research students from The University of Manchester. It takes place in the Nowgen Laboratory, on the Central Manchester University Hospitals NHS Foundation Trust site.

What the teachers tell us...

"Takes students on a journey from phenotype to genotype, allowing independent investigation."

"Helps to consolidate, motivate and inspire"

"Content extremely related to A2 and BTEC units"

Learning outcomes

- Key genetic terms (dominant, recessive, homozygote, heterozygote, and more)
 - DNA and the genetic code
 - Genetic variation
 - Classifying organisms
 - Variation, adaptation and evolution
- Practical experience of:
- Isolating DNA
 - Polymerase chain reaction (PCR)
 - Use of restriction enzymes
 - Gel electrophoresis
 - Interpreting DNA gels

Cost and booking

Cost: £375 per workshop
[maximum of 25 students]

T: 0161 276 8943

E: bookings.nowgen@cmft.nhs.uk

W: www.genomicsforschools.org

The Nowgen Centre
29 Grafton Street
Manchester
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2012-2016: 99% of students felt that attending the workshop successfully allowed them to develop their practical skills

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