**Careers and Mathematics**

Mathematics is in every job - we all know that but do our students? We will explore a different job and the mathematical activities involving this job from the website “On the Job”.

Let’s have a look at the Biometrician. Detailed information about the Biometrician can be found here: [Biometrician - Research and Development - On The Job](https://onthejob.education/research/biometrician.htm)

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**Context and relevance**: There are several *Types of Biometrics* and today our culture is using them more and more for security:

* DNA Matching
* Ear
* Eyes - Iris Recognition
* Eyes - Retina Recognition
* Face Recognition
* Fingerprint Recognition
* Finger Geometry Recognition
* Gait
* Hand Geometry Recognition
* Odour
* Signature Recognition
* Typing Recognition
* Vein Recognition
* Voice - Speaker Recognition
* Voice - Speaker Verification/Authentication

**Activities for the Classroom:** <https://onthejob.education/classhome_activities/research/biometrician.htm>

**Activity 1: Your Ear: A Medical & Technical Illustration: Intercepting with Biometrics!**

**Primary MiddleMiddle  High SchoolSecondary**



This activity looks at Biometric Verification using the ear**.** Students are to measure different parts of their partner’s ear and photograph it. The students are to submit their measurements into a class   
  
Excel spreadsheet to see if any ear is the same. They are to then work out what other factors/characteristics could differentiate the ears.

**Activity 2: 1984: A Comparison with today**An activity for **High SchoolSecondary** studying Literature.

**Activity 3: Voiceprint & the ATO. This activity is linked to the Call Centre Operator.   
High SchoolSecondary**An activity for students studying Technology.

**Activity 4: Hand Biometrics Technology** (from TryEngineering.org)  
Primary**Primary MiddleMiddle  High SchoolSecondary**

This lesson on engineering applications of biometric technologies for identification or security applications. After exploring hand geometry biometrics, students work in teams of “engineers” to evaluate pros and cons of incorporating a hand recognition biometric technology into a new security system for a museum.

**Careers & Mathematics can be found at** <https://onthejob.education/teachers_parents/Mathematics_Teachers/Careers_Mathematics_Index.htm>

**Contact Information**

If you are investigating a job or person in that job, please contact me Frances Moore – I would be happy to hear from you.

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