

ADDITIONAL INFORMATION FOR PARENTS

Biostore Biometric

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What is Biostore—How does it work?

Biostore is a central database that stores the information which identifies students uniquely to each of the applications used within the school. It requires each student to register only once by placing a finger on a scanner, although other identification methods are available.

Why use Biostore's biometric system instead of other existing identification methods?

Biostore's centralised system speeds up the registration process, each student needs to only register once, no matter how many applications requiring identification are in place in the school. With a biometric system, students cannot borrow or steal credentials from each other, reducing the opportunities for bullying. Queues are reduced, because the identification of students is quicker. Students no longer need to carry a card, remember PIN numbers, or use cash to buy a meal. Biometric systems save time and money for both the Academy and students because the need to replace lost cards and forgotten passwords is eliminated.

How secure is the stored data? What would happen if somebody stole the data in some form?

The database is protected by a license key, which means that the database and any backup of its contents can only be accessed on licensed hardware. The licensed hardware is stored in the Academy's own secure facility, so that the encrypted data is only available to the registered licensee.

Even if security was compromised and a backup of the database stolen, the encrypted data would still be unreadable, even by another school/college.

Does Biostore record images of fingers?

No. It is the policy of Biostore never to store images of fingers anywhere on their system.

Only mathematical representations of certain points of interest on are recorded, typically between ten and forty depending on the characteristics of the finger. This information is encrypted and called a template. This data is extremely secure in its encrypted form but even if it were not encrypted it is impossible to recreate the original image of the finger from this data.

Is it possible to recreate a fingerprint from the data stored on Biostore?

No. The Biostore system only stores a short string of encrypted numbers too few numbers to provide enough detail for the original print to be reconstructed. A simple way to think about how the system works is to consider an ordnance survey map of a given area. Imagine marking all the points where roads cross, then recording the coordinates of these crossing points. Use this information to examine a set of, say, 100 maps, and compare each map with the recorded information.

The original ordnance map will be identifiable with some degree of certainty. However, using only the recorded coordinates it would be impossible to recreate the original map with any accuracy more than 99.99% of the information will have been discarded, leaving only the few recorded points.

Even these points cannot be recreated because only a simple description of each has been kept.

Can my child's finger biometrics be used by the police or a court of law?

No. Biostore does not store an image of their finger. The recorded templates are comprised of a set of numbers which represent each person. This set of number will be unique within hundreds, or a few thousand people. However, in the wider population the system is not accurate enough for the template to be usable for forensic matching with any degree of certainty. A court of law would never be able to use this information as evidence.

If I lose my bank card then it can be replaced, but I can't replace my finger. If a template is stolen, have I lost my identity forever?

No. The finger template stored in the database is merely a string of encrypted numbers. If this string of numbers were to be removed from the database, it would be useless, because it cannot be recognised as a fingerprint. A finger scanner checks for a real finger—it does not recognise a string of numbers, unlike a bank machine, which will accept a bank card from anybody who happens to know the PIN number.

I have heard that Biostore is a central database. Where is the information kept?

The Biostore database is stored at the Academy's secure facility.

If I object to my child's finger biometrics being taken, what will happen?

The Academy will issue any student who wishes to opt out of the biometric system with an alternative method of identification.

What is False Acceptance and False Reject?

These terms refer to how accurate and reliable the system is in correctly identifying people. False Acceptance occurs when a person is wrongly identified as someone else. A False Reject occurs when a person's own finger is not recognised.