Cyber Security Initiative for Nevada Teachers

Erik Wilson, Patrick Kelley, Deppak Gurune, Dr. Shamik Sengupta, and Dr. David Feil-Seifer
Department of Computer Science, University of Nevada, Reno
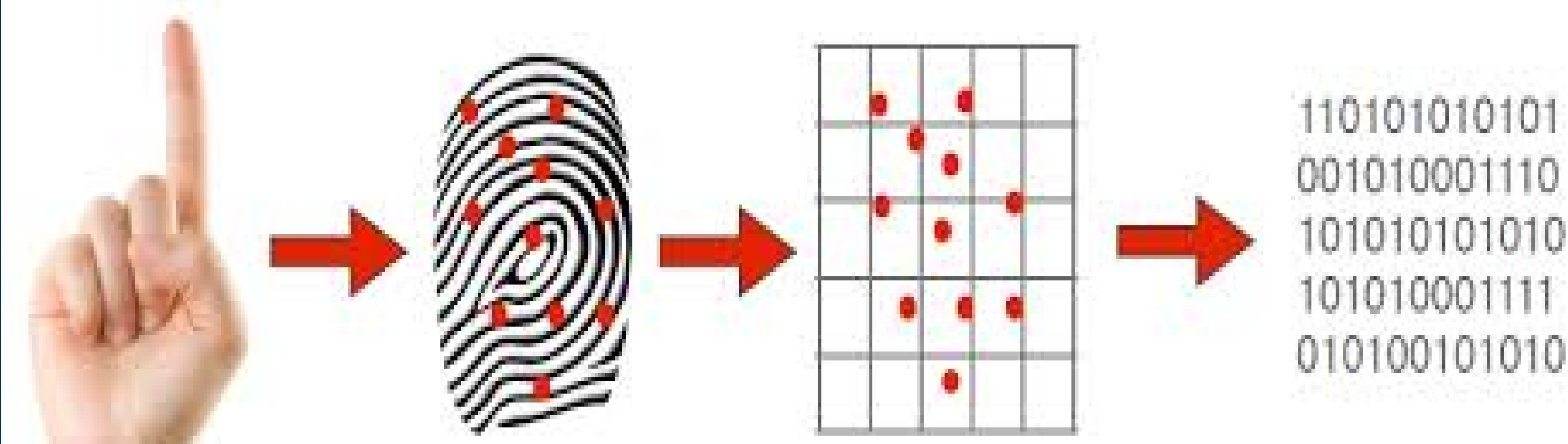
Introduction

I teach at Damonte Ranch High school in Reno, NV. I have three Environmental Science classes that I teach along with a credit recovery class and a class every day for 50 minutes at the end of the day we call IC. It is a class set up like a study hall but we also do whole class lessons.

Implementation

information for three class periods. The first day will be a survey to see what the students know about biometrics. The second day will be going over the information with them through a power point and class discussion. The last class period will be a post survey and discussion to see how their ideas have changed and where we could take the information they have learned.
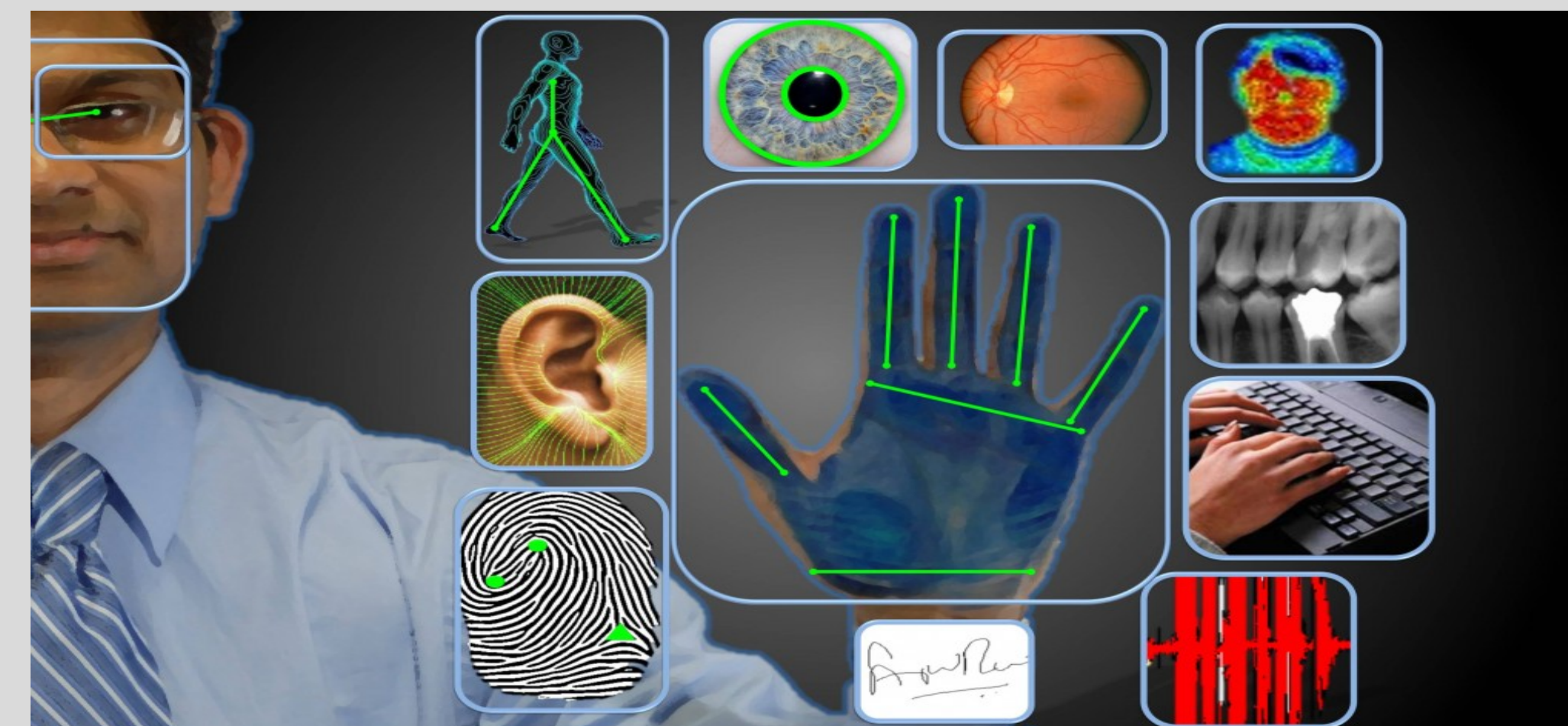
For my Environmental Science class I will be incorporating small parts from the summer workshop throughout the year. The very first day I plan to introduce password safety and biometrics through a demonstration using their own phones. I also plan to share with them the dangers of what they post online and how people can locate them just by what they post on the internet.

After the lesson, I will talk to students to see how to improve the lesson so we can share it with the entire school second semester.
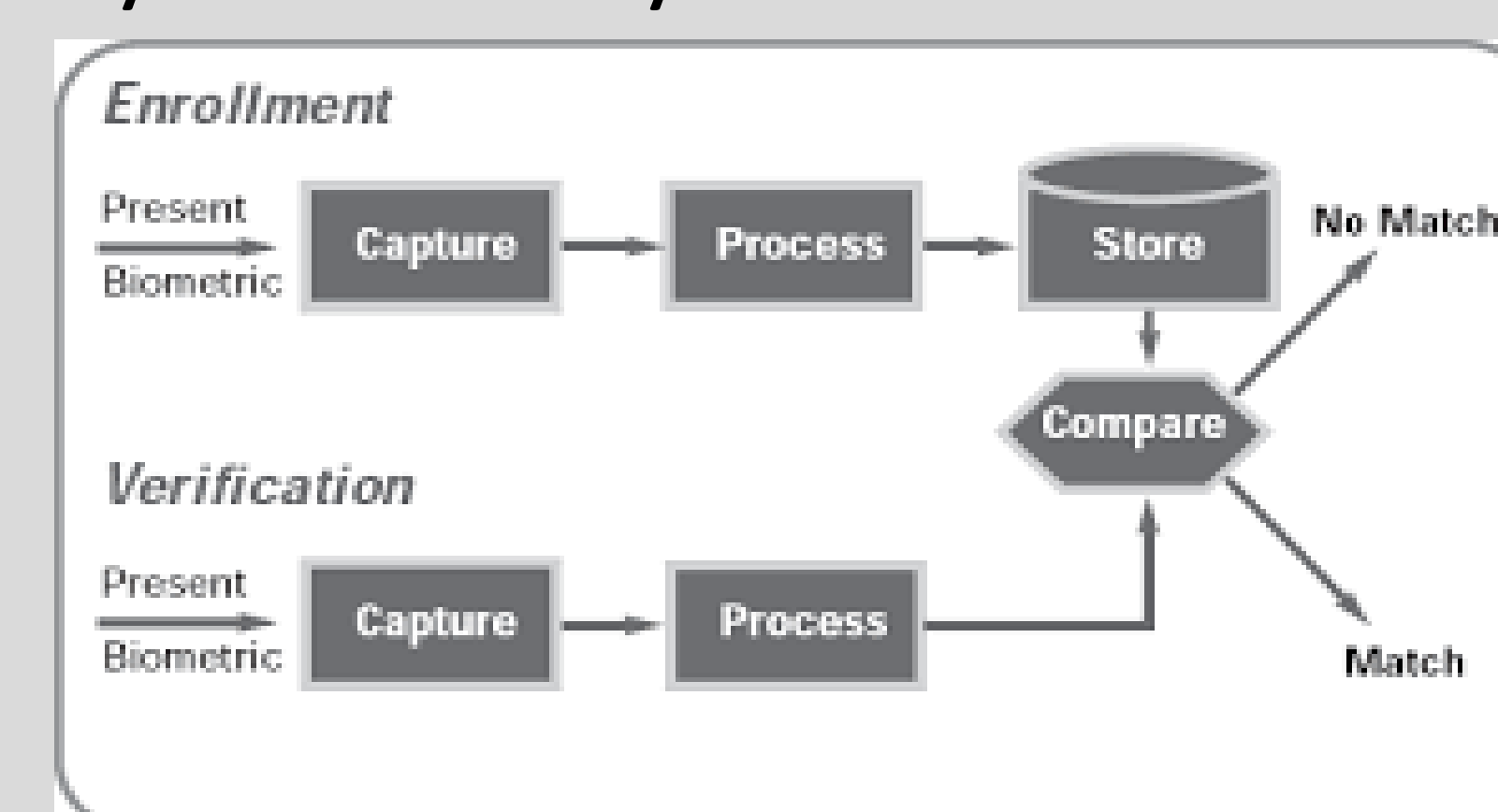
Biometrics Information

During the presentations on biometrics, the students will be learning the basics about biometrics. We will look at the anatomical features(facial recognition, thumb print, iris scans and hand geometry). as well behavioral features(Speaker/voice recognition, signature or handwriting and keystroke patterns). We will also look at the advantages and disadvantages of biometrics, encryption of biometric information and how biometrics could be used by them as they get older.

Cyber Security quick hits

Security vs. Privacy
Passwords- how easy they are to hack and how to develop better ones.
Protection vs. Security
Computer forensics
Dangers of pictures on the internet- how people can get your location and how pictures never go away
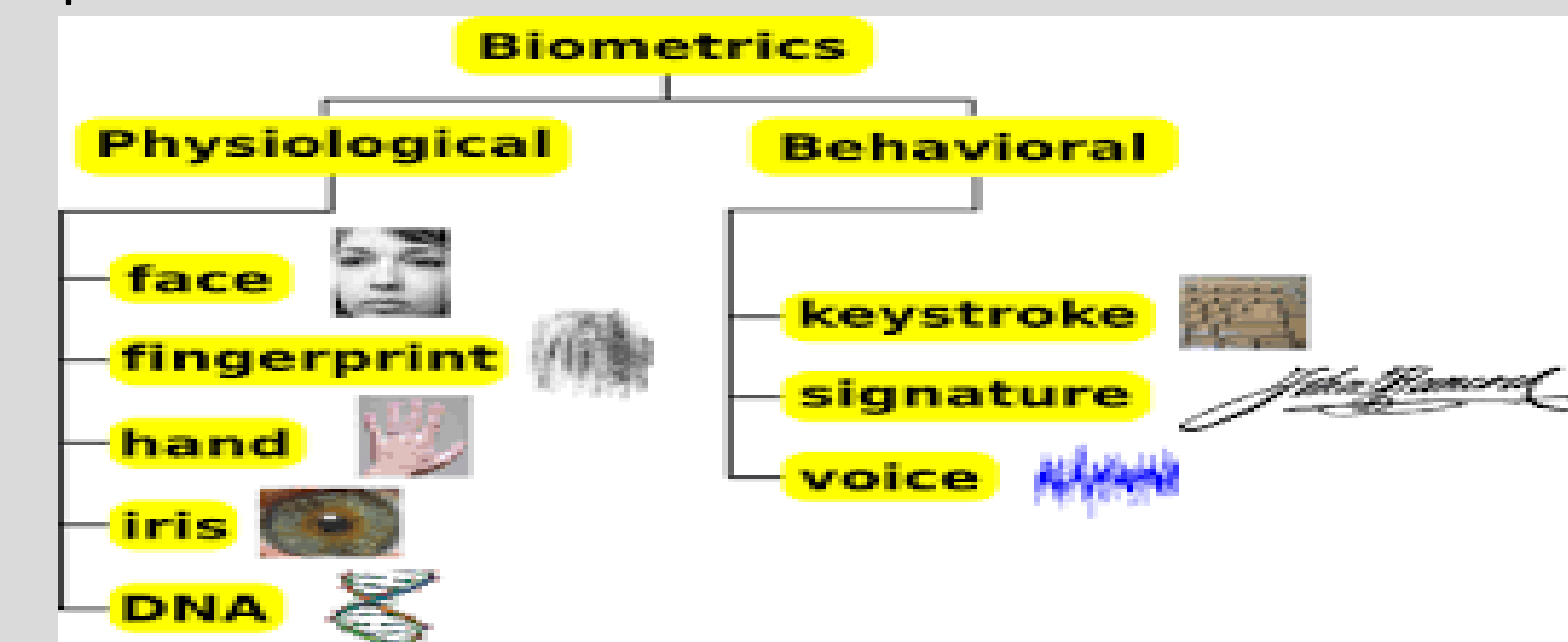Possibilities of cyber security education

Activities

Show students the benefits of having biometrics by using thumb print to log in to their phone compared to using a 4 digit code that anyone could shoulder surf and steal.
Have small group discussions on the ethical areas of using biometrics.
Class demonstration on how quickly a basic password can be stolen or hacked

Survey

Questions I will be asking at the beginning and the end of the presentations to see how their ideas of biometrics have changed.
Your bank does not need more protection
Nobody uses biometrics
Keys and cards are more efficient
The police/government can check me out
Biometrics is an invasion pf privacy
Biometrics spreads germs
Biometrics is hard to install
Do you lock your computer screen when you leave the classroom?