



PG ONLINE

Options talks

GCSE

Computer Science

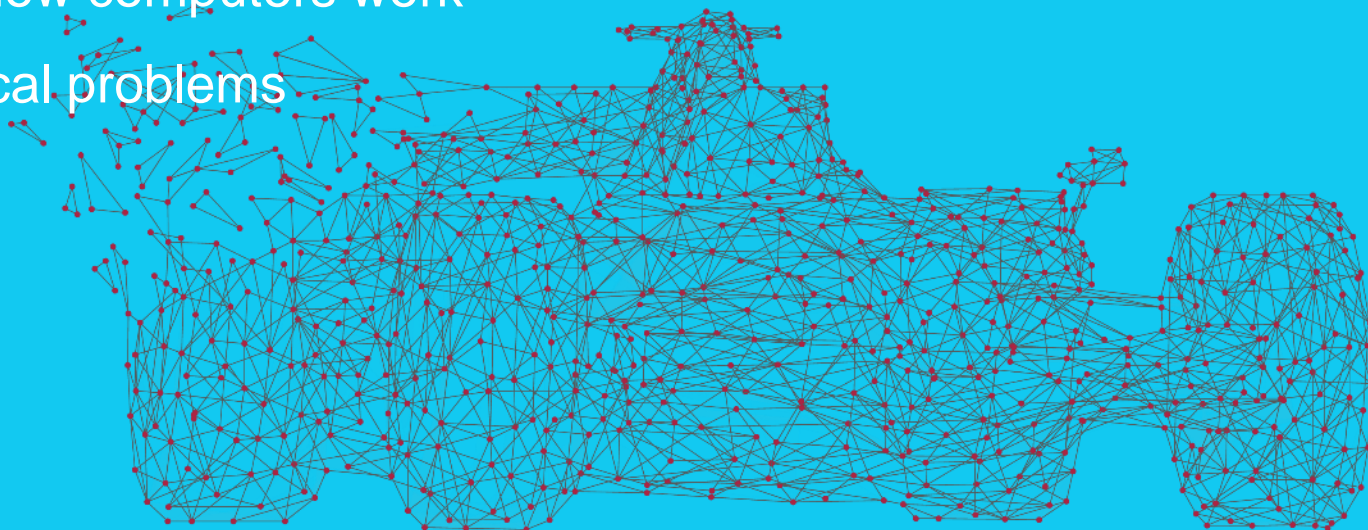
Do you like...?

Maths Creating
Programming
Logic
Problem solving
Technology Hacking
Internet



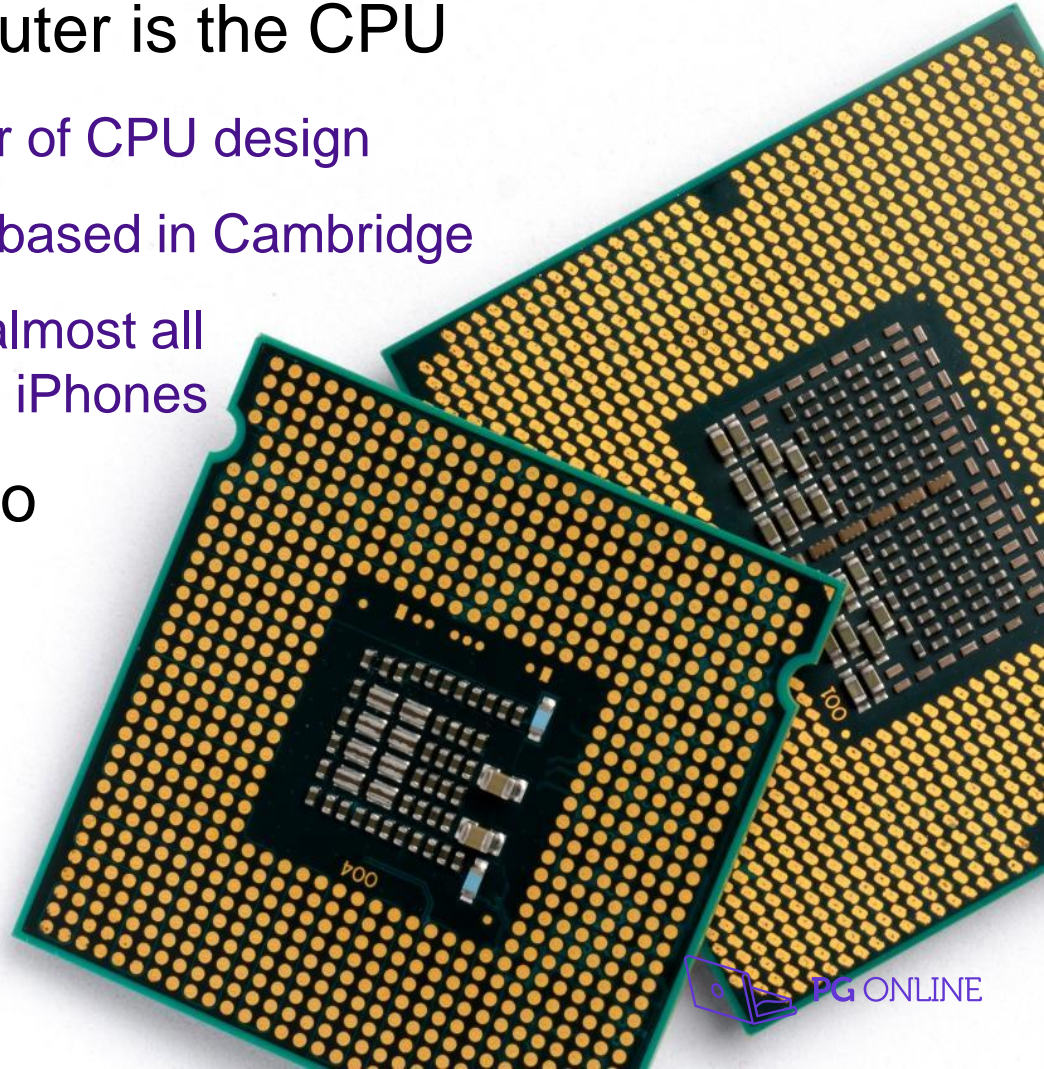
Why choose CS?

- Computers are changing every part of our lives at an ever increasing rate – why not drive the future?
- In this GCSE:
 - Experience programming and making new software
 - Find out how hackers attack computers
 - Discover how computers work
 - Solve logical problems



CPU design

- The brain of any computer is the CPU
 - The UK is a world leader of CPU design
 - Made by ARM, who are based in Cambridge
 - ARM chips are used in almost all mobile phones including iPhones
- Are you the person who will design the next generation of devices?



Drones

- Drones are already used for film making, search & rescue and surveying
 - In the future, deliveries to your house could be made by drone
 - They will need programmers to tell them where and when to go each day
- Would you like to be a part of this future?



Robotics

- We are finding more and more uses for robots
 - Robotic vacuums in the home
 - Car assembly
 - Clearing mines in a war zone
- To make a robot you need to have a good understanding of how computers work and how to program them



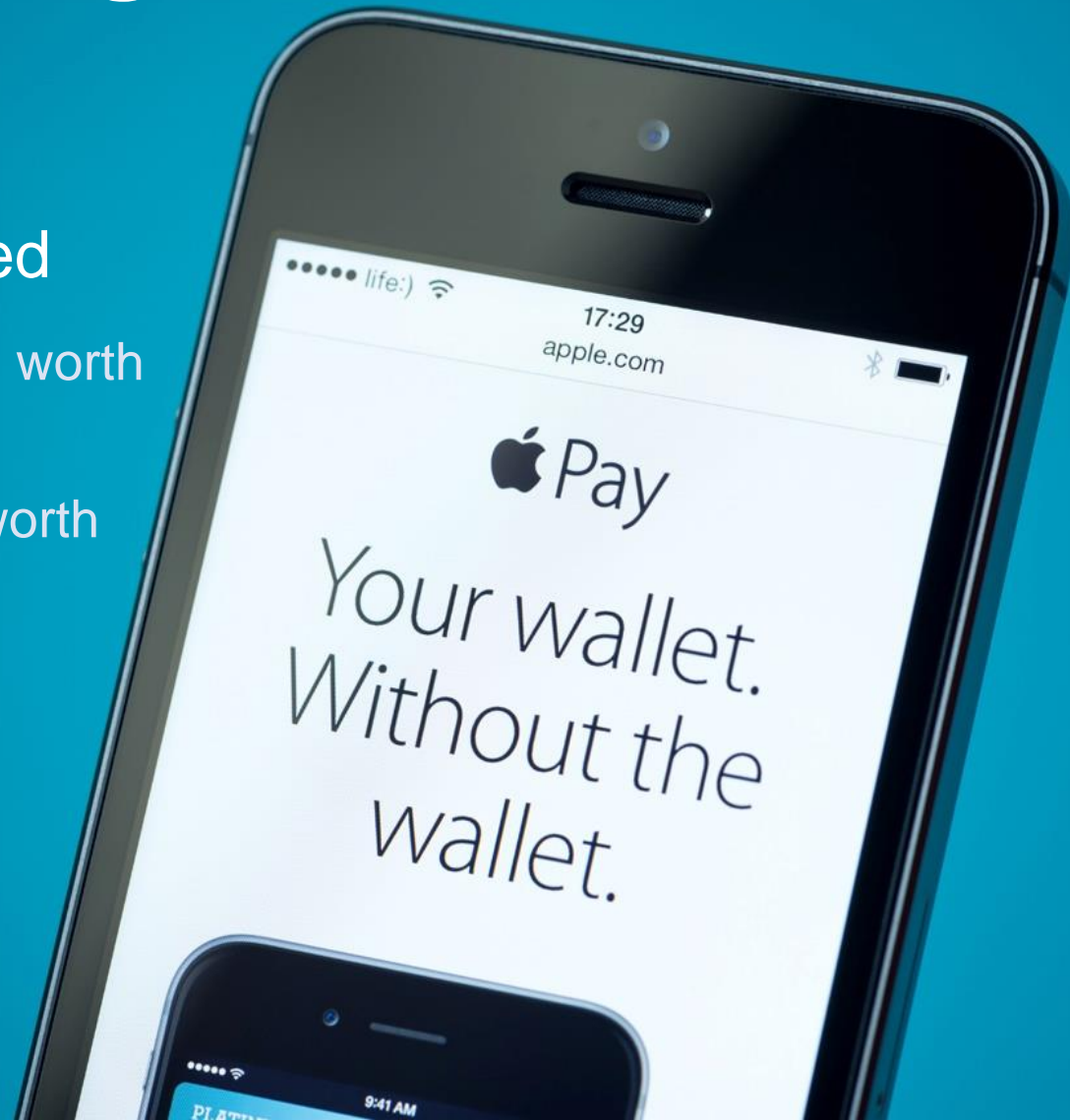
The World Wide Web

- Invented by British scientist, Tim Berners-Lee in 1989
 - More than four billion people now use it
 - Over 45 billion web pages have been written
- Every British business needs people with an understanding of how computing can help them



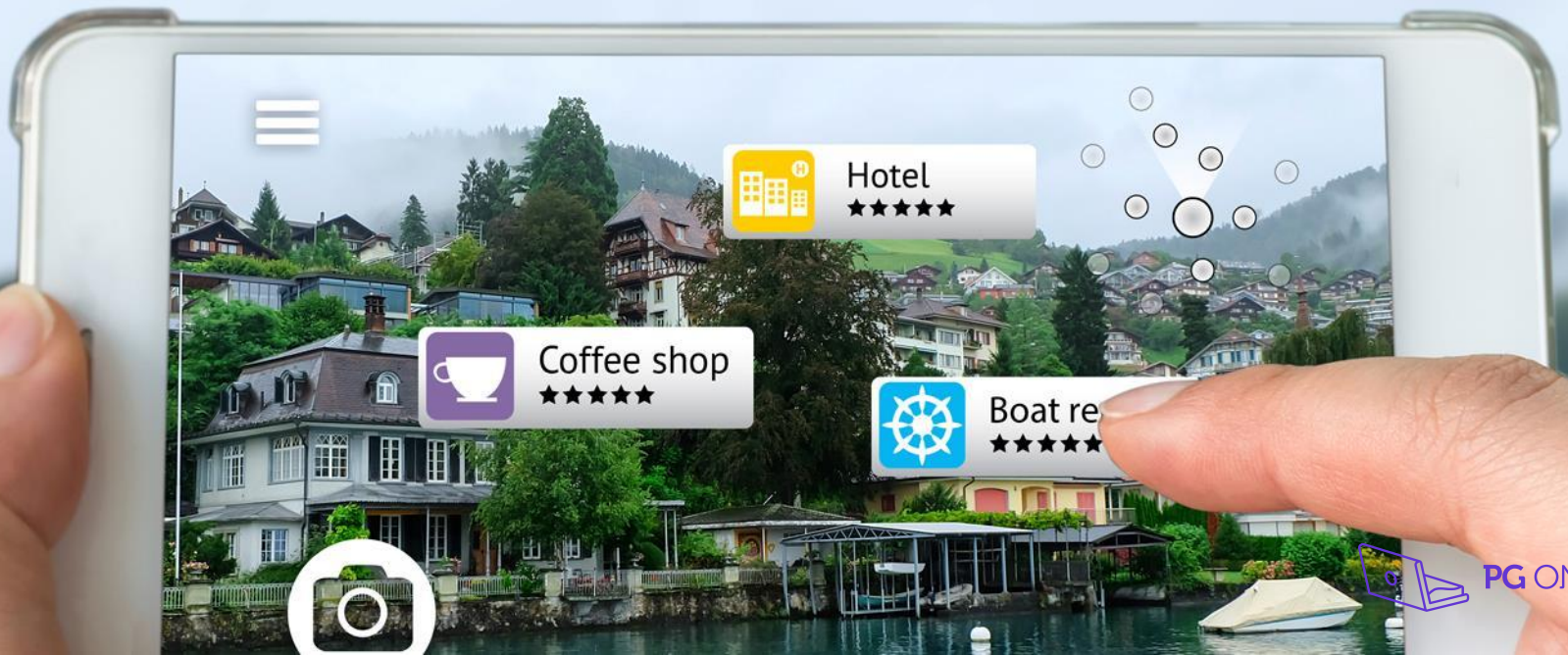
Game-changing E-commerce

- Shopping has been transformed since the web was invented
 - Online shopping was worth £1 trillion in 2014
 - It is predicted to be worth £3.7 trillion by 2021
- Want to know how it works?



Augmented reality

- By adding information to the world we can:
 - add reviews on shops and cafés as we see them
 - utilise a heads-up display when driving
 - or play Pokémon Go



Entrepreneurs & start-ups

- It took just three people to create Snapchat
 - Bobby Murphy was the programmer who coded the app
- Within four years the software was sending six billion videos per day
 - Most entrepreneurs can't imagine having made it without a knowledge of IT and Computer Science



Big companies in the UK

- Major international companies are present in the UK and looking for bright new talent
 - Google
 - Microsoft
 - Apple
 - Samsung
 - Facebook



A strong games industry

- The UK is well known for its games development
- The following were all made in the UK:
 - Grand Theft Auto (Edinburgh)
 - Elite Dangerous (Cambridge)
 - Candy Crush (London)
 - Batman: Arkham (London)
 - Sonic Forces (Leamington Spa)
 - Burnout Paradise (Guildford)



Course content

- The GCSE is assessed through two external exams
 - Each exam is worth 50%
- There will be ample opportunity to program during the course
 - You will be given a programming task to complete, but these are not externally assessed which takes the pressure off you as you code

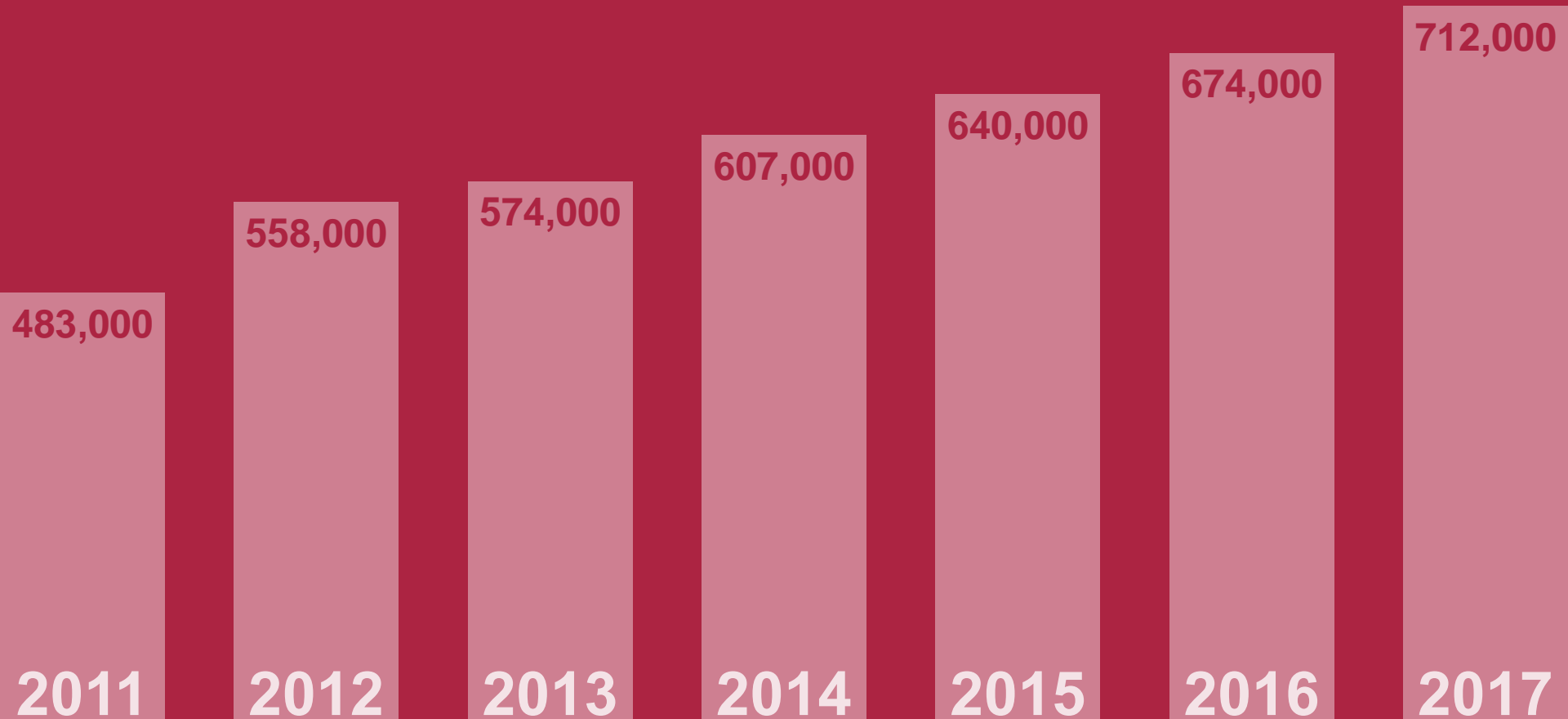
What will I learn?

- This GCSE will equip you with a range of transferable practical and theoretical skills:
 - Programming skills in a modern language
 - An understanding of how computers and networks work
 - Knowledge of cyber-security and how hackers attack systems



Equip yourself for success

- IT, programming and computer services have an ever-growing number of jobs in the UK



Will you make the next BIG app?



Big careers in...

Systems engineer
Design **Robotics**
Future careers electronics
Games **Web** Cyber-Security
Data **Entrepreneur** App
analysis UX/UI Programming
Consultant



The world needs **YOU**
to help develop the future.

Are you in?

