

Activity Guide - CS in Entertainment

Transition work for Cambridge Technicals In IT.



This transition unit will involve you doing some research into how Computer Science has impacted on the entertainment Industry, followed by a practical course in computer Animations and Games.

There are TWO parts:-

1. **Entertainment Exploration-** You are to use this document to carry out research and document your findings. You should spend around **2 Hours** on this part. Try to make it visual by including images and screen shots to augment your written findings.
 - **When you have chosen your focus area, use the question prompts to guide and organise your research evidence.**
2. Creating Animations and Games. In part 2, you will program animations, interactive art, and games in Khan Academy- Pixar in a box.

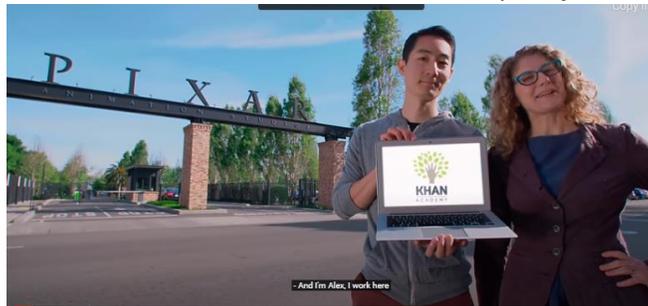
Key Skills Development

An opportunity to begin looking in more depth at the subjects you have chosen, preparing for the greater independence required in Year 12

PIXAR IN A BOX! (KHAN ACADEMY)

<https://www.khanacademy.org/join/DBGWEKR8>

Click the link above and you will be able to create an account with Khan Academy and join the Rushcliffe Group.



Pixar in a Box is a behind-the-scenes look at how Pixar artists do their jobs. You will be able to animate bouncing balls, build a swarm of robots, and make virtual fireworks explode. The subjects you learn in school — math, science, computer science, and humanities — are used every day to create amazing movies at Pixar. This collaboration between Pixar Animation Studios and Khan Academy is sponsored by Disney. If you have questions or ideas, email us at piab@khanacademy.org.

Mr Cottee
Leader of Computing and E-Learning- Rushcliffe School.

Entertainment Exploration

Computer Science has played a huge role in the evolution of many (if not all) fields of entertainment. To better understand how CS has changed these fields, and to get a feel for how you might use programming to create entertainment with your programming skills, you're going to look into some of the ways people are developing software that entertains.

Topics (check the one you've selected)

- Movies and Television** (eg. programming 2d or 3d animations, computer generated special effects)
- Music** (eg. computer generated music, digital instruments)
- Games** (eg. video game programming, animation)
- Art** (eg. interactive art, algorithmic art)
- Other** (describe) _____

Researching your Topic

With your chosen field as guidance, go online to search for how computer science has impacted your field of entertainment. Try to focus on how CS or programming is used to *create* entertainment, instead of just places where computers are *used* in entertainment.

As you move beyond the provided sites, consider using the following patterns to find information (use your topic in place of the blank):

Programming for _____
Computer Science in _____
Algorithmic _____
Creating _____ with code

Use the space below to record notes about interesting products you find, patterns that you're seeing, or problems within your chosen topic that people are trying to address.

Research Notes

Interesting Information

Based on the research you did on the last page, select **one** of the uses of CS you found to focus on. Answer the following questions for your chosen use.

You may need to head back online to gather more details about your chosen use.

What Problem Does it Solve?

Why is CS used in this way? How is it solving a problem in the creation of entertainment?

How is it an Improvement?

What makes the use of CS better than prior approaches? Does it allow creators to do things easier, faster, or in ways that were impossible before?

An Interesting Fact or Use

What's an interesting fact about the use of CS in this field, or an interesting product that was created with CS?

An Open Question

What questions are you left with after exploring the use of CS in your chosen field?

- When you have completed your research. Proceed to Part two of the transition work.