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. Head to Code Studio for a list of useful sites to begin your search.

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

Special effects houses spend as much time on the software side as the artistic side.
3D animation started with Toy Story.
In most movies, computer science special effects are blended with non-CS special effects.
Interesting Information
Based on the research your group 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?
Special effects solve the problem of being able to show things in movies that aren’t real, like in Harry Potter or I am Legend. Computers are used because they can make very complicated things, like fur or people.

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?

Computer science saves time because you don’t have to animate everything individually. An example of this is in Lord of the Rings, when they made the battle scenes.

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?

Toy Story used toys for the first big movie because the technology wasn’t good enough to do real people yet. When it got better, they could do fur, and people, so they did Monsters, Inc. and The incredibles.

An Open Question
What questions are you left with after exploring the use of CS in your chosen field?
The article said that we are good at making people, but from what I’ve seen they still don’t look good close up. If they get good enough, then will everything just be animated, even though it looks real?