**Impact On computing**

9-12 IC 1 Evaluate the impact of computing technologies on equity, access, and influence in a global society.

Students will be asked to research an assigned computer scientist and research them. They will discover what their impact is either regarding programming, algorithms, software, hardware, internet and many other topics that this person was involved in. They will be asked to create a presentation to their classmates so that all will gain some knowledge on the history of these computer scientists and their impact in those fields.

Example portion of the lesson below:

| ***Directions: Choose one of the famous computer scientists listed below. Create a PowerPoint presentation about this person and what they helped to create or design. Your PowerPoint should have the following.***   1. There should be a minimum of 5 – 8 slides in your presentation. 2. When were they born? Where were they born? 3. Where did they receive their education? 4. What are they famous for in the computer science field? 5. Did they receive any special awards or achievements? 6. How can you relate the impact of what they created to what we use in society? 7. There should be 4 to 5 lines of information per slide. The intro slide does not need to have this many lines. 8. Have at least 3 images of the computer scientist you have been assigned.     Save your work as: **Computer Scientist**    **Listing of Famous Computer Scientists**   |  | Alan Turing | | --- | --- | |  | Edsger W. Dijkstra | |  | Donald Knuth | |  | Ada Lovelace | |  | Niklaus Wirth | |  | Fred Brooks | |  | Grace Hopper | |  | Peter Naur | |  | Alonzo Church | |  | Hal Abelson | |
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**Career Paths 9-12 IC.7**

**Investigate the use of computer science in multiple fields. The focus on making connections between computer science and the fields of interest of individual students.**

**Summation: Students will be asked to research two computer fields they have an interest in. Once making the presentation they will search what the job is, the skills, knowledge, education involved as well as the pay scale. This will help to broaden the students’ knowledge of the various occupations in the computer science field.**

*Example of the lesson given below.*

| **Create a PowerPoint Presentation based on your answers for the questions below. You are not limited to these questions in creating your presentation. You should do a compare and contrast for your two Computer Science jobs in your presentation.**  **Minimum 10 slides.**  Save as **Computer Science jobs**   1. What are the duties/responsibilities of the job? Describe in detail what they are.   2. Who or what do they interact and work with directly?  3. What must they have an understanding of? (Examples; Hardware, software, programming languages, networks etc.)  4. What type of degree can they have outside of computer science if any?  5. What is the salary range?  6. Show images of the work environment and or equipment that they use incorporated into your answers above.  7. Reference the websites by making a bibliography page. You must have a minimum of 3 websites.  **Computer Science Careers**  If you’re considering pursuing a computer science career, or just curious, here is a list of some of the top-paying jobs in the field. While salaries for some roles vary widely by location, industry, experience level, demand and sometimes as the wind blows, this list should give you a rough idea of the more financially rewarding IT-related     | Systems Analyst or Systems Engineer | Data Modeler | | --- | --- | | Business Systems Analyst | Project Manager | | CRM Business Analyst | Web Developer | | Software Systems Engineer | Product Manager, Software Development | | Solutions Architect | Data Security Analyst / Information Security Analyst | | E-Commerce Analyst | Applications Developer | | ERP Business Analyst | Technical Support | | Pre-Sales Engineer / Technical Engineer | Manager, Design & UX | | CRM Technical Developer | Manager, Technical Services/ Help Desk/ Tech Support | | Portal Administrator | Information Technology Manager | | Programmer Analyst | Business Intelligence Analyst | | Network Analyst or Network Engineer | Mobile Applications Developer | | Wireless Engineer | Information Technology Auditor | | Business Continuity Analyst | Quality Assurance Associate / Analyst | | ERP Technical Analyst / ERP Functional Analyst | Database Manager | | Database Administrator | UX Designer | | Software Developer | Manager, Software Quality Assurance (QA) / Testing | | Telecommunications Manager | Data Architect | | ERP Technical Developer | Manager, Data Warehouse | | Network Manager | Network Architect | | Network Security Administrator | Software Engineer | | Project Manager, Applications Development | Manager, Information Systems Security | | Systems Security Administrator | Manager, Applications Development | | Network Security Engineer | Applications Architect | | Data Warehouse Developer / Analyst | Database Developer | | Technology training Specialist | Desktop Support Team Lead | | Cyber security engineer | IT Auditor | | Computer Hardware Engineer | Information researcher | | Professional Hackers | Computer Programmer( Base it on a specific programming language) | |
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