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)