

STEM Ccareers Infographic Project (SCIP): Teaching Media-Based Computational Thinking Practices

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The STEM Career Infographic Project (SCIP) was a 4-week exploratory project deployed in an 8th grade classroom at Mountain Vista Middle School (MVMS). SCIP was poised to address the growing focus on STEM fields at MVMS and within the school district. We piloted SCIP in Spring 2014 with six science classes or about 180 students. SCIP allowed for students to explore their own STEM interests, while simultaneously engaging in the 6 Computational Thinking Practices (CTP) outlined by the College Board.

Students were required to research a STEM career in-depth, then report on their careers using infographics (CTP #2: Creating Computational Artifacts and CTP #3: Abstracting). We used free and online programs to create the infographics; this provided the students the opportunity to learn software they were not previously exposed to and to explore new communication tools (CTP #1: Connecting Computing and CTP #2: Analyzing Problems and Artifacts). SCIP also provided many occasions for the students to work together by sharing career information or helping each other with the software (CTP #6: Collaborating). At the end of the project the students presented their infographics in front of the class and taught their classmates about their career (CTP #5: Communicating).

The project was incredibly successful. The students had a positive affect through the duration of the project and many also expressed an extreme level of interest in doing similar projects in the future. We will be repeating this project in Spring 2015, with a few adaptations and formal evaluation scheme.

ACM Categories & Descriptors: K.3.2 [Computer and Information Science Education]: Computer Science Education

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