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Arts Integration Paper  
The Arts in STEM  
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Animations is the featured art form on which I plan to focus for my unit about simple machines. Animation is a visual art form that gives life to still drawings and pictures when a series of varying still frames are combined and played in succession. Animation can be achieved in numerous ways, from the most basic flipbook-style animation, to stop-motion animation, to computer animation. For the purpose of my arts integration lesson, I will allow my students to choose the method of animation with which they are most comfortable and best fits the concept they need to show. I chose this art form for the simple machines unit because simple machines illustrate forces and motion in action. Because motion is an essential understanding in the unit, it is important to give it a starring role in the project.

Using the art form of animation requires students to break the simple machine's process down into pieces. Therefore, if there are any misunderstandings about the given simple machine it will be obvious, as this project is essentially a formative assessment performed in slow-motion. For example, if students choose to animate the use of a wedge, they will have to understand what happens the entire time the wedge is used in their given situation—from the beginning to the end of when the work is performed. If they animate a lever, they will have to show where the load is in relation to the fulcrum and the force, and it will need to make sense with what would happen in real life. The animation would reflect what really happened in a lab exercise. In a sense, the animation project will bring the lab notes to life.

This art form can certainly be used to create interdisciplinary lessons. In addition to demonstrating the motion, students would show the math in the animation. They could also bring in the ELA component by writing a script for a voice-over of the animation, or they could even create a story where the simple machine solves the problem in their story. That would welcome the introduction

of other art forms. Students could create background music for the story animation; I can imagine a suspenseful orchestra playing when there appears to be no solution for moving a load, and that music could change to a light-hearted tune as the load movement is made possible by the simple machine. Perhaps social studies could be included if students research how certain wonders were created (like the Egyptian pyramids). Using the art form of animation will allow students to demonstrate learning across the curriculum, and can add meaning and value to otherwise siloed subject-area concepts. Actually, I believe that integrating any art form will act as the glue to help students connect concepts from across the curriculum to their own real-world experiences. Arts integration will, in turn, lead to deeper learning experiences for our students.