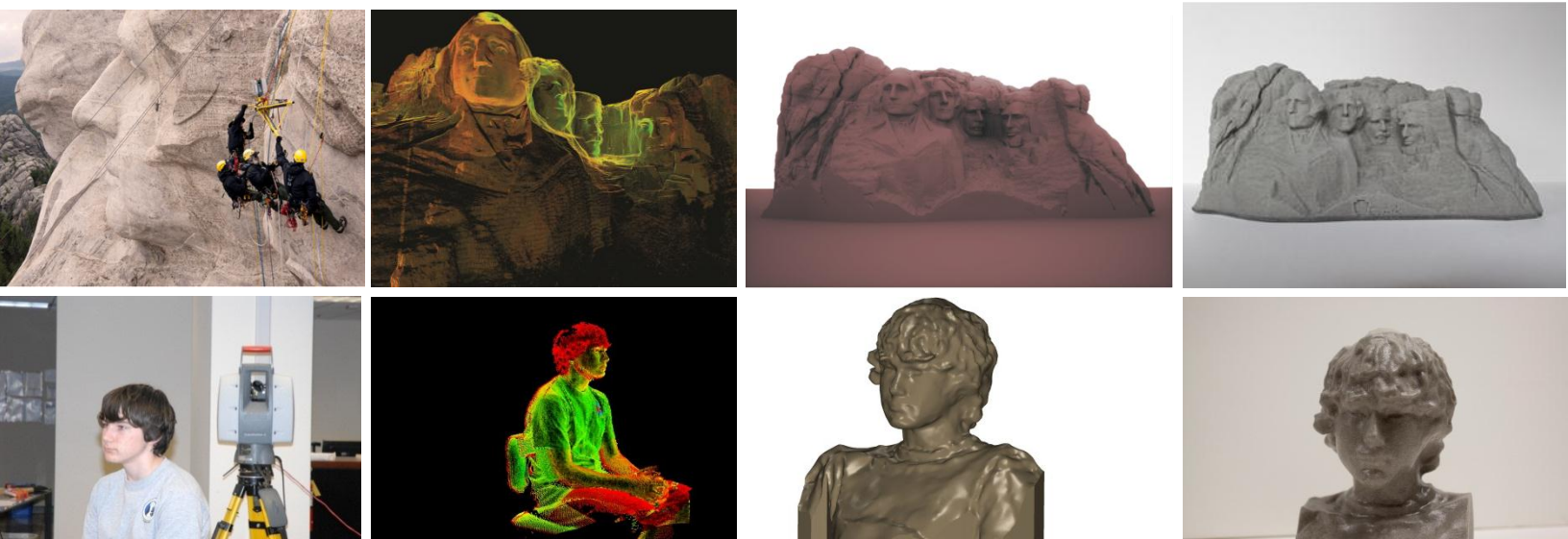


Use Photographs to Create 3D Models!

(This document should be opened in Adobe Reader, which can be downloaded for free [here](#))

This activity was created by CyArk as an offshoot of the educational blog entitled **How I learned about 3D printing from CyArk and Mount Rushmore**, where 8th grader, Zachary McDonald, recounts his experience visiting the CyArk office to learn about 3D modeling and printing in preparation for his science fair project.

By learning how CyArk scanned, modeled, then created a 3D print of Mount Rushmore, Zachary used a similar process to create a 3D model of his head and have it 3D printed. Click [here](#) to read his blog and learn all about his experience.



Zac got to learn how to create a 3D model from laser scan data, but as he says in his blog: “Laser scanners are hard to come by, [so] CyArk showed me a different way that you or I can create a 3D model of our heads or any simple objects at home.” There are many things you can do with a 3D digital model. For Mount Rushmore, CyArk used the model to create drawings of the mountain, kind of like a blueprint, so that the people protecting the sculpture can take measurements and study the mountain up-close.

On the next pages, you’ll find two tutorial presentations. The first will show you how to create the 3D model of your head and the second will show you how you can take your model and create measurable drawings, just like at Mount Rushmore!

Ready to start the 3D model of your head? Grab a partner! You’ll need the following materials:

- Digital Camera (your partner will need to help you take the photos of your head)
- Computer with internet connection
- USB Cable or card reader (to transfer digital photos to your computer)
- Printer
- Ruler
- Pencil
- Paper

Scroll to the next page to start the first tutorial. When you’re ready to go to the second tutorial, you’ll have to scroll down to the last page.

