Dream Catchers Science Program

January 31, 2020 – San Juan College Farmington

A hands-on science and engineering program designed for American Indian students in grades 6 through 12 who are interested in science, technology, engineering and math. There are no costs to attend the program and parents are invited to attend workshops with their student(s).

How Do You Code a Self-Driving Car?

Learn how computer programmers think about and solve problems by coding your own solution to a self-driving car challenge! Learn key concepts and skills that you’ll need to become a programmer and get resources that will help you on your journey. For complete beginners and those with some experience. Programming language is NetLogo.

Electrical Engineering with Circuit Boards

Come and learn about electrical engineering! Electricity is everywhere in nature and in the technology we use every day. In this course you will learn what electricity is and how we measure it. You will then design, analyze, and build electrical circuits on breadboards and project boards with integrated electrical components. By the end of the class you will have the skills needed to design your own circuit projects, such as an AM radio or sound amplifier.

The Power of Wind

In this hands-on workshop you will learn about the science and technology around wind turbines and blade design. We will explore what is wind energy and the pros and cons of this technology. Then, through a series of experiments understand the many factors that go into the design. This all leads to the challenge, you will design mini wind turbines and blades and put them to the test.

Light Waves

How does light behave? Students figure out the different ways that light can behave with hands-on activities. They will then perform a series of labs to confirm some basic rules.