

New!

Engineering Design Projects

Inspiring students to build their world.

The Science Companion Engineering Design Project series allows users of inquiry science programs to add engineering and technology to their current science classes to easily meet state engineering and technology standards.

Animal Homes Design Project

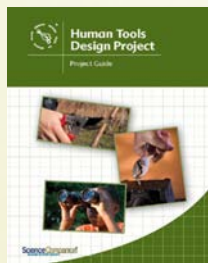
Comparing different animal homes.



Children note the materials the animal used to make the home, guess how the animal made the home, and think about how the home meets that animal's needs. Choosing an animal, they design, build, and construct a home for that animal. They reflect on the materials they used and what they might do differently with different materials.

Human Tools Design Project

How humans create and use tools.



Children identify the kinds of tools and technologies that humans have developed to expand our natural capabilities and meet our needs. They consider the limitations of tools and technologies, as well as the ways they improve our quality of life. Finally, children identify a need and design a simple tool to meet that need.

Simple Machines Design Project

Six types of simple machines.



Students learn about the six types of simple machines and how they make our tasks easier. They apply their knowledge of simple machines to design machines that utilize at least two simple machines. They plan and draw pictures of their designs, build their machines, and then demonstrate them for the class.

With Exploragear®

Moving Systems Design Project

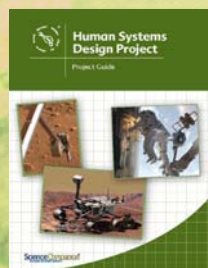
Practical physics for moving systems.



Students explore the effects of gravity, drag, friction, lift, and thrust on the motion of transportation systems and living things. They compare speeds of objects and investigate how changes in speed are caused by forces. They also design, build, test, and demonstrate a system that solves a real world problem.

Human Systems Design Project

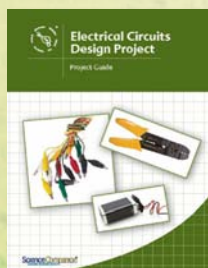
Robotic and human arms work the same way.



Students learn about recent unmanned spacecraft sent to Mars. They discover the challenges of remotely operating a Mars Rover and its robotic parts. Then they learn how their own arms move by looking closely at joints, bones, and muscles. Using this knowledge, they design and sketch a robotic arm to collect samples of material on Mars.

Electrical Circuits Design Project

Figuring out how to put electricity to work.



Students review concepts of electricity and circuits. They create series and parallel circuits, and build simple circuit boards. They learn to draw schematics of circuits, then plan their own circuit designs. They build and troubleshoot their designs, learning to convert electrical energy to other forms of energy within a circuit.

With Exploragear®

Science Companion[®]
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Engineering Design Projects

Introduce technology and engineering seamlessly to your students at an unbeatable price!

Get the S, T & E of your STEM education needs met easily and affordably. Our Design Projects can either stand alone or support both compatible Science Companion modules and curriculum from FOSS and STC, making it easy to add technology and design right onto your existing science lessons. They're accessible and engaging for both students and teachers. (And did we mention they were a great price?)

Use Science Companion Design Projects with your current inquiry science curriculum:

| Design Project | Science Companion | FOSS | STC |
|---------------------|---|---------------------------------|--|
| Animal Homes | Collecting and Examining Life Solids, Liquids, and Gases | Animals Two by Two | Organisms Animal Studies |
| Human Tools | Life Cycles Habitats | | The Lifecycle of Butterflies |
| Simple Machines | Motion Rocks | Levers and Pulleys | Balancing and Weighing Rocks and Minerals |
| Human Systems | Our Solar System Human Body in Motion | Human Body Planetary Science | Human Body Systems |
| Moving Systems | Energy Motion | Force and Motion | Motion and Design |
| Electrical Circuits | Electrical Circuits Energy | Magnetism and Electricity | Electrical Circuits Magnets and Motors |

Call us at 888-352-0660 or contact your rep to ask for a sample today!