### Physical Sciences:

**Simple Machines and Industrial Engineering-- Marvelous Machines: Making Work Easier**
1. Aisha Makes Work Easier
2. Assembly Lines
3. Using Simple Machines
4. Improving a Factory Subsystem

**Solids and Liquids and Chemical Engineering-- A work In Process: Improving a Playdough Process**
1. Michelle’s MVP Award
2. Get the Creative Juices Flowing
3. All Mixed Up

**Electricity and Engineering: An Alarming Idea-- Designing Alarm Circuits**
1. A Reminder for Emily
2. It’s Electric!
3. Representing Circuits
4. Designing an Alarm Circuit

**Magnets and Transportation Engineering-- The Attraction is Obvious: Designing Maglev Systems**
1. Hikaru’s Toy Troubles
2. Steering Clear of Danger
3. A Magnetic Personality

**Balance, Forces, and Civil Engineering-- To Get to the Other Side: Designing Bridges**
1. Javier Builds a Bridge
2. Pushes and Pulls
3. Bridging Understanding
4. Designing a Bridge

### Geosciences:

**Air, Weather, and Mechanical Engineering-- Catching the Wind: Designing Windmills**
1. Leif Catches the Wind
2. Who are Mechanical Engineers?
3. Test Sail Designs
4. Designing a Windmill

**Landforms and Geotechnical Engineering: A Stick in the Mud: Evaluating a Landscape**
1. Suman Crosses the Karnali River
2. The Core of the Issue
3. Selecting a Site
4. Evaluating a Landscape
5. Designing a Maglev System

**Earth Materials and Materials Engineering: A Sticky Situation: Designing Walls**
1. Yi Min’s Great Wall
2. Materials and Their Uses
3. Testing Mortar
4. Designing a Wall

**Water and Environment Engineering**
1. Saving Salia’s Turtle
2. Who are Environmental Engineers?
3. Exploring Filter Materials
4. Designing a Water Filter

### Biological Sciences:

**Bioengineering: Just Passing Through: Designing Membranes**
1. Juan Daniel’s Fútbol Frog
2. Biology Meets Technology
3. Exploring Membranes
4. Designing a Model Membrane
5. Improving a Play Dough Process

**Sound and Acoustical Engineering: Sounds Like Fun: Seeing Animal Sounds**
1. Kwame’s Sound
2. Shh! Damping Sounds
3. “Seeing” Sounds
4. Representing Bird Sounds

**Plants and Package Engineering: Thinking Inside the Box: Designing Plant Packages**
1. A Gift From Fadil
2. Who are Packaging Engineers?
3. Evaluating Needs and Creating Criteria
4. Improving a Package Design

These curricula have great lessons that fit well with the three dimensional approach of the Next Generation Science Standards (NGSS)

*Binders may be checked out for a period of two-weeks.*

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To request a Binder or Teaching Box call 707-826-4479