Experiments with Plants Storyline STC Sixth Grade

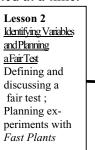
Unifying Concept: Systems, Order, and Organization; Evidence, Models, and Explanation; Constancy, Change, and Measurement; Evolution and Equilibrium; Form and Function

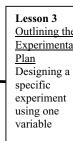
Big Idea: Science experiments include variables (conditions that change) and controls (conditions that remain constant). In a controlled experiment, only one variable is changed. Variables for the optimal growth of Wisconsin Fast Plants include continuous water and cool light, fertilizer, space, cross-pollination, and temperature between 70... F and 80... F.

Sub Concept I: Experiments Part 1

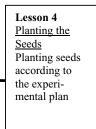
A good experiment is like a fair test, during which only one variable is tested at a time.

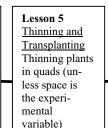
Lesson 1 What Do You Know About Experiments? Discussing characteristics of experiments; Reading about Fast Plants





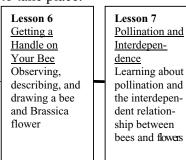


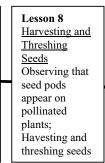




Sub Concept II: Plants Part 1

Pollination allows fertilization and seed production to take place.





Sub Concept III: Experiments Part 2

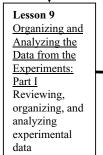
Conclusions from an experiment are based on careful record keeping growth from a seed.

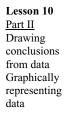
Sub Concept IV: Plants Part 2 Germination is the beginning of new

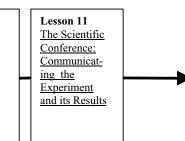
growth from a seed.

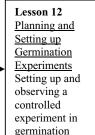
Sub Concept V: Plants Part 3

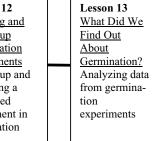
Tropism is the growing or bending of a plant in response to external stimulation.













Lesson 15 What Did We Find Out About Tropisms in Wisconsin Fast Plants? Analyzing data and drawing conclusions from experiments

Description of Assessment: Post unit assessment includes revisiting list from lesson 1, self-evaluation, evaluating student work (e.g. science notebook)

Science Process Skills: Observing, Questioning, Comparing, Communicating, Interpreting, Relating, Predicting, Inferring, Applying, Organizing National Science Standards: 5-8 Life Science; History and Nature of Science; Science as Inquiry

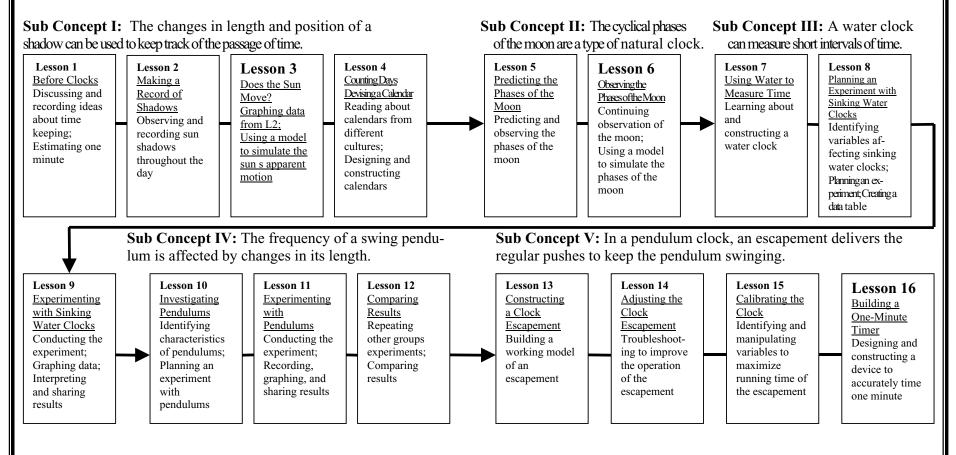
California Science Standards: Investigation and Experimentation 7a-c

VIPS 2000

Measuring Time Storyline STC Sixth Grade

Unifying Concept: Systems, Order, and Organization; Evidence, Models, and Explanation; Constancy, Change, and Measurement; Evolution and Equilibrium; Form and Function

Big Idea: Time can be measured by observing the natural cycles of the sun and the moon. Mechanical devices can be constructed and used to consistently measure specific intervals of time.



Description of Assessment: Pre-unit assessment (L 1), revisiting lesson 1, final assessment: self-assessment, questions about clocks, new predictions on moon s phases, review student work (e.g. science notebook)

Science Process Skills: Observing, Questioning, Communicating, Interpreting, and Applying

National Science Standards: 5-8 Physical Science; Science & Technology; Science in Personal and Social Perspectives; History and Nature of

Science; Science as Inquiry

California Science Standards: 6: Investigation and Experimentation 7b-e

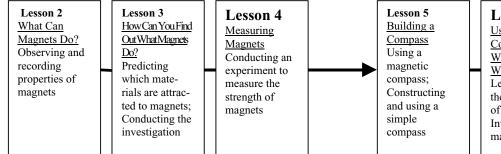
Magnets and Motors Storyline STC Sixth Grade

Unifying Concept: Systems, Order, and Organization; Evidence, Models, and Explanation; Form and Function **Big Idea:** Magnets attract and repel each other; this attracting and repelling can be used to cause motion.

Sub Concept I: Magnets attract certain materials. Magnets have a north and a south pole.

needles point to the Earth magnetic

Sub Concept II: Magnetic compass Sub Concept III: An electric current passing through wire produces magnetism.



Lesson 6 Using a Compass: Which Way is Which? Learning about the useful-ness of a compass; Investigating magnetic poles

Lesson 7 Creating Magnetism Through Electricity Creating an electric circuit Observing how an electromagnet causes a compassto rotate

Lesson 8 Lesson 9 Making Designing an magnets with Experiment to Electricity Test the Strength of Building and an Electromagnet Identifying using an variables of electromagnet electromagnet strength Planning an

experiment

Sub Concept IV: Motors use electromagnetism to convert electricity into mechanical work. Lesson 10 Lesson 11 Lesson 12 Lesson 13 Lesson 14 Lesson 15 Lesson 16 Testing an Showing Making a Building a What is Inside How Does a Generating Electromagnet Others What Spinning Coil an Electric Motor Work? Electricity Motor Conducting the You Have Observing how Motor Motor? Exploring ways Using motors a an electromagexperiment Learned Building a Investigating to change generators from L9 Discussing, working motor the components motor function net causes a graphing, and of a motor Reassembling a compass to sharing data rotate motor

Description of Assessment: Pre-unit assessment (L 1), four post-unit assessments cover various concepts from lessons 7, 12, 13, measurement and revisit of L 1, review student work (e.g. science notebooks)

Science Process Skills: Observing, Questioning, Comparing, Communicating, Inferring, and Applying

National Science Standards: 5-8; Physical Science; Science & Technology; Science in Personal and Social Perspectives; History and Nature of Science; Science as Inquiry

California Science Standards: Science; Investigation and Experimentation

VIPS 2000