Matter and Its Properties

Lesson: E1-1 Use physical prop's to ID matter
Author: Mr. Hilvers
Endorsed: St. Lawrence School
Level: Grade 5

Lesson Objective
Recognize that matter is anything that has mass and takes up space.
Conclude that an object's physical properties remain constant and can be used to identify it.

Teaching Procedure
Day 1: Lab: Do "Investigate"activity, P. E4. Get 25 apples, string. Set up scale. Have students measure, weigh and observe the characteristics of their apple, record these on paper, and place in a box. Then jumble apples in box and place on tables, and mark them with dry erase marker. Write the number on each apple beside it on the table. When all apples are placed and numbered, ask students to identify their apple, asking them how they know that that one is their apple.
Day 2: Read/discuss p. E6-7.
Day 3: Read/discuss p. E8-9.
Day 4: Read/discuss p. E10-11. Assign mixture/solution homework activity.
Day 5: Analyze student mixture/solution homework activities.
Day 6: Quiz on lesson E-1.


Microsoft Word Document

Homework Assignment
Day 3: WB263.
Day 4: Have students bring in two mixtures, one that is a solution, one that is not.

Lesson: E1-2 How does matter change?
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Correct Homework, if any

Lesson Objective
Compare and classify matter according to its physical state.
Recognize that heat is responsible for changes in the state of matter.
Identify melting and boiling points as constant temperatures at which substances change state.

Teaching Procedure
Day 1: LAB: Do "Investigate" activity, p. E12. Get ice, hotplate, thermometer, saucepan, antifreeze and plastic bag.
Day 2: Read/discuss p. E14-15.
Day 3: Read/discuss p. E16-E-19.
Day 4: LAB: Liquid nitrogen. Get N from Wright Bros., and do activites at
http://www.reachoutmichigan.org/funexperiments/agesubject/lessons/nitrogen.html
http://webs.wichita.edu/facsme/nitro.htm
http://webs.wichita.edu/facsme/nitro/tea.htm
http://webs.wichita.edu/facsme/nitro/ballo.htm
http://webs.wichita.edu/facsme/nitro/pong.htm
http://webs.wichita.edu/facsme/nitro/egg.htm
Day 5: Quiz

Homework Assignment
WB 268.

Lesson: E1-3 How does matter react chemically?
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Level: Grade 5

Correct Homework, if any

Lesson Objective
Compare a physical change with a chemical change.
Conclude that physical and chemical properties can be used to identify substances and to separate mixtures.
Observe that matter is conserved during both a physical change and a chemical change.

Teaching Procedure
Day 1: LAB: Do "Investigate", p. E20.
Day 2: Read/discuss p. E22-23.
Day 3. Read/discuss p. E24-25.
Day 4. Read/discuss p. E26-27
Day 5. Review for test.
OPTIONAL EXTRA LAB: Dehydrating sucrose using sulfuric acid.

Homework Assignment
WB 273.

Lesson: Test
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