

<b>Lesson Plan Outline</b>		Teacher: Audrey Bergmann and Dagmar Wabel School: Elmcrest Elementary	
<b>Subject: Science Skills</b> <b>Date: 4/4/11</b> <b>Time: 2:00 pm</b>	<i>Students will engage in:</i> <input type="checkbox"/> Independent activities <input checked="" type="checkbox"/> Cooperative learning <input type="checkbox"/> peer tutoring <input type="checkbox"/> Visuals	<input type="checkbox"/> Simulations <input type="checkbox"/> pairing <input checked="" type="checkbox"/> hands-on <input type="checkbox"/> centres	<input checked="" type="checkbox"/> whole group instruction <input type="checkbox"/> lectures <input type="checkbox"/> a project <input type="checkbox"/> technology integration
<b>Standards/Objectives met:</b> N.5.A.1 – Students know that scientific progress is made by conducting careful investigations, recording data, and communicating the results in an accurate method. N.5.B.3 – Students know the benefits of working with a team and sharing findings.			
Time	Procedures followed		Material
<b>10 Min.</b>	Engagement: Read a riddle to the students ("A Real Killer of a Riddle" page 21 from 'Science is...') and try to solve it together. Discuss with the students how scientists have to think 'outside the box' and that this is what we will practice today: Science Skills.		"Science is..." Susan V. Bosac Scholastic page 2
<b>20 Min.</b>	Exploration: The children receive their notebooks and go through all the five stations and try to solve the tasks. The tasks will most likely be very difficult for the children and it is important to give them ample time to solve them.		notebooks work stations
<b>20 Min.</b>	Explanation: Gather the children and the materials from the stations together and hold a group discussion. Together discuss if it was hard to solve the tasks, if it was impossible and share the solutions. It is important to address frustrations and explain how we sometimes need specific knowledge to solve tasks. Encourage the children to ask their parents to try the tasks!		notebooks work stations
<b>5 Min.</b>	Elaboration: Science is a lot about asking the right questions. Introduce "Questions, Questions" (Science is.... page 20) as a fun game that teaches us to ask useful questions. If there is time left, the game can be played until the end of the lesson. Encourage the children to play this game in during break time!		"Science is..." Susan V. Bosac Scholastic page 20
-	Evaluation: Thoughtful, thorough completion of the notebooks!		student notebooks

Name:


---

Class:


---



## STEP – BY – Step

**Step 1:** Look at the materials. 

**Step 2:** Find the instruction in your notebook! 

**Step 3:** Try to solve the challenge. 

**Step 4:** Take notes in your notebooks. 

## RIDDLE ME

Science is about answering difficult questions. These 2 riddles are quick to read, but it takes time to solve them.

**Too difficult?** Ask your teacher for a clue!

Solution for riddle number 1:

.....

.....

.....

.....

.....

.....

Solution for riddle number 2:

.....

.....

.....

.....

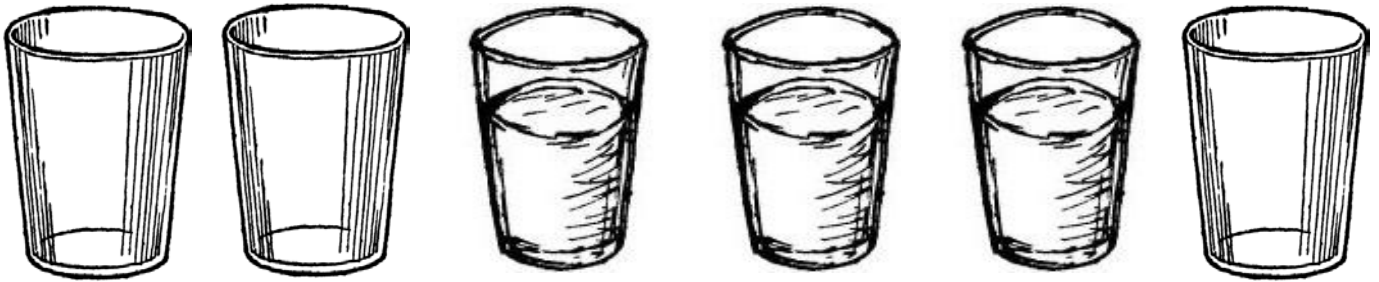
.....

.....

# THE GLASS PUZZLE

One way to solve a problem is to see it differently.

**Materials:** Six paper cups; water



**Doing it:**

Arrange the cups so that they stand alternately: one full, one empty, one full, one empty, one full, one empty.

You can only move or touch one cup one time.

Done? Put the cups back into the original position for the next group.

How did you do it?

.....

.....

.....

.....

.....

.....

## HEAVY FINGER

Sometimes we have to guess to solve a problem. Sometimes you are surprised by what actually happens.

**Materials:** two cups with water, a pencil and a ruler.

**Doing it:**

1. Balance the ruler across the pencil.
2. Balance the two cups of water on opposite ends of the ruler. The ruler must not touch the table.
3. **What will happen** if you dip your finger into the water in one of the cups?



.....

.....

.....

4. Dip your finger in one of the cups. Don't touch the cup! Then dip your finger into the other cup. **What happens?**

.....

.....

.....

# PAPER BRIDGE

Sometimes we must know how things work so we can solve the problem.

**Materials:** two cups, a piece of paper, Mrs. Martha the Owl



**Doing it:**

Put the piece of paper across the two cups to make a bridge that can carry Mrs. Martha the Owl.

**How did you do it?**

.....

.....

.....

.....

.....

.....

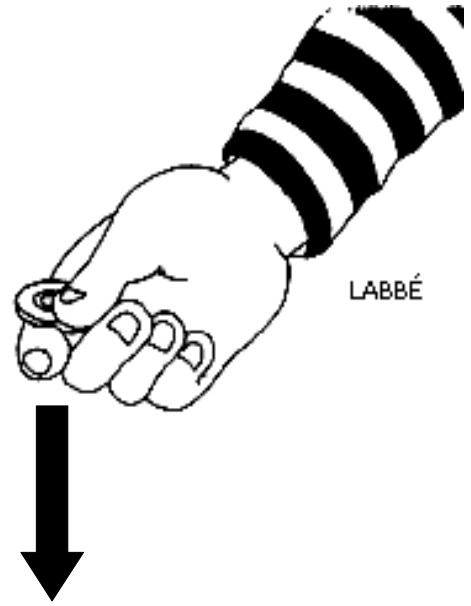
# THE RACE!

**Materials:** A coin and a piece of paper

**Doing it:**

Drop the coin and the piece of paper,  
from the same height,  
at the same time.

The paper and the coin must reach the  
floor at the same time.



What is the trick?

.....

.....

.....

.....

.....

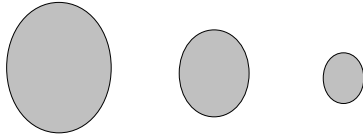
.....



**A change in direction riddle**

The man was almost out of breath. But home  
Was in sight. Then he spotted a masked figure.

The figure came towards him. The  
Running man stopped and quickly  
Turned around. He ran all the  
Way back to where he started.  
Why?



**A traveling riddle**

A girl with a fox, a goose, and a bag of corn wanted to  
cross a river. She could take only one animal or object  
at a time. The fox would eat the goose if they were  
left alone together; but if the girl took the fox first,  
the goose would eat the corn.

How did the girl get all  
three safely across?

