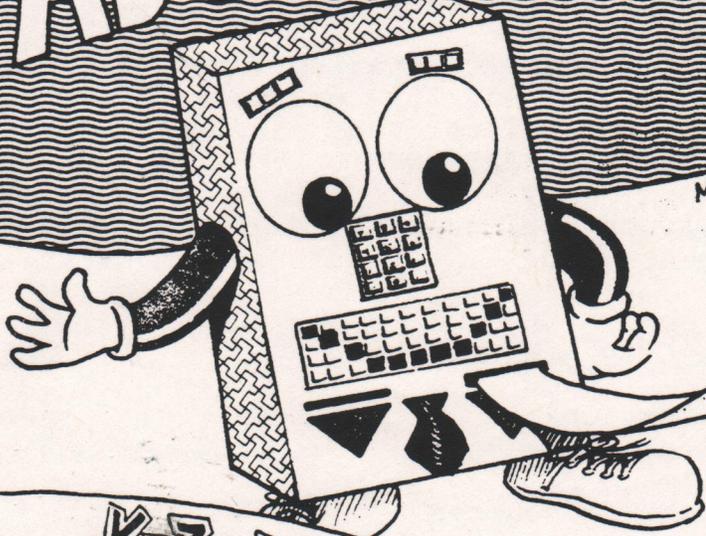


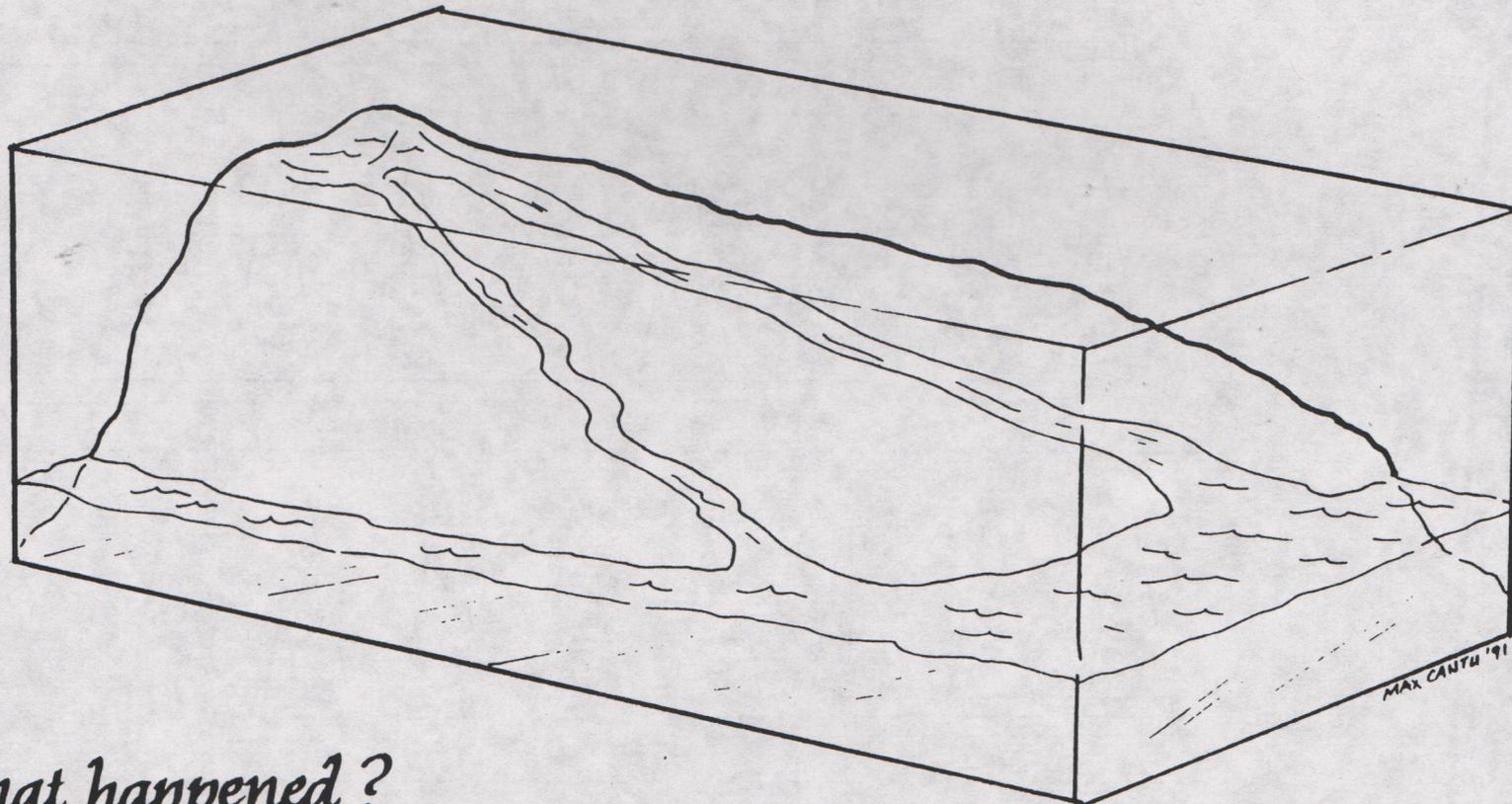
ALL ABOUT WATER

Max Cantu



K-3 WATER ACTIVITIES

What happened as the ice melted?

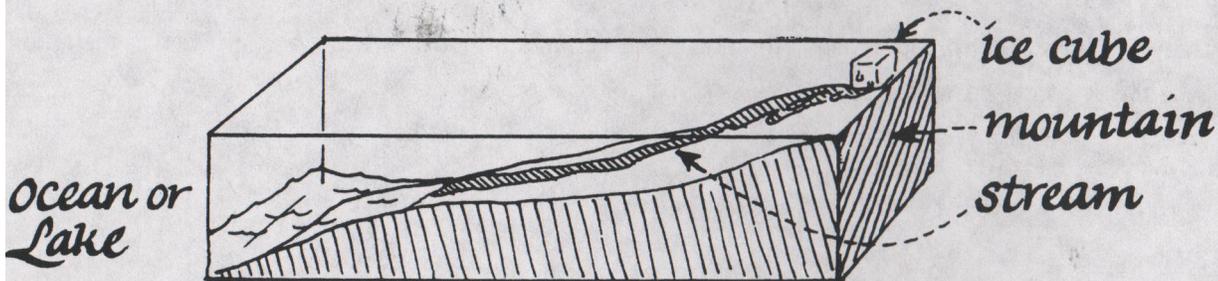


What happened?

LANDFORM MODEL ALTERNATIVES

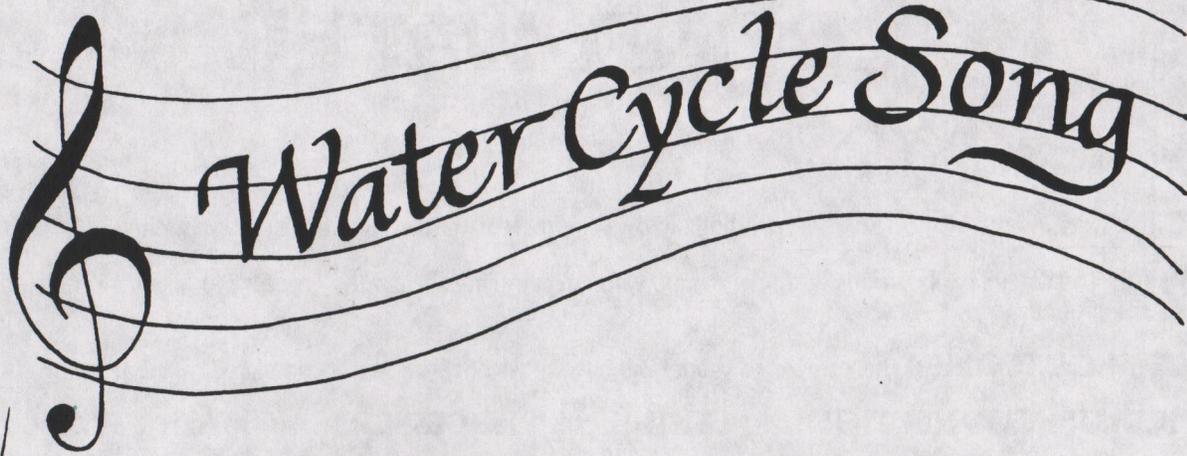
Containers:

- clear plastic salad containers with a cover.
- see-thru plastic storage containers such as: Rubbermaid brand.
- any deli/bakery aluminum pan with a clear plastic dome lid.
- aluminum foil folded into a pan with a plastic wrap cover.



Landforms

- plasticine clay stretched thinly and then placed over foil or paper that has been molded into a landform base.
- plasticine clay molded into landforms.
- aluminum foil molded into landforms.
- brown grocery bag torn and molded into the landforms.



Water Cycle Song

Where, oh where, does the water come from?
Oh where, oh where, could that be?
As the sun shines down, it heats up the sea,
And evaporates above me.

Where, oh where, does the water come from?
Oh where, oh where, could that be?
As the water cools down, it groups all around,
And condenses to clouds above me.

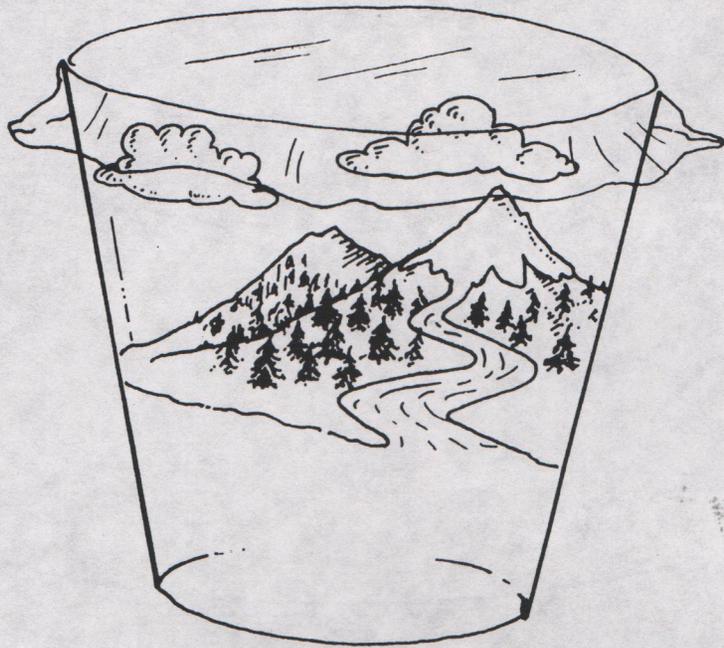
Where, oh where, does the water come from?
Oh where, oh where, could that be?
It precipitates down — onto the ground,
And rolls on back to the sea.

When the clouds come to town — the water falls down,
And gathers in streams, lakes, and sea.
It accumulates down — deep in the ground
'Til it's pumped through the pipes back to me.

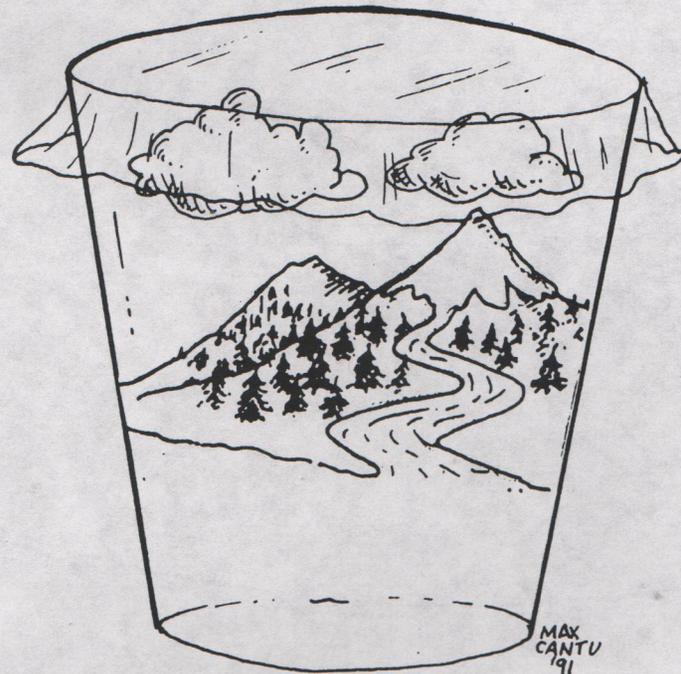


MAX CANTU '91

Water moves from the earth to the clouds and back again.
It is called the _____.



NOW



LATER

MAX
CANTU
191

FILTERING DIRTY WATER

QUESTION: How well do different materials filter water?

OBJECTIVE: Students will begin to learn about the scientific method by testing a variety of filter materials to see how well they filter dirty water.

ACTIVITY: Students will test three materials to determine which one will filter dirty water the best.

EXPECTED OUTCOME: The results will vary. The coffee filtered water should be the cleanest.

CURRICULUM CONNECTION:

Science

THINKING PROCESSES:

Observing
Comparing

Communicating
Ordering

BACKGROUND NOTES: Filtration occurs when water is passed through a filter and the suspended particles do not pass through the filter. In this activity, cloth, paper towel, and coffee filters are used to filter the water. The tightness of the weave of the material will control the amount of suspended matter that passes through it. Coffee filter paper will have tightly woven material and should be the most efficient filter. Different water districts may use varied filtering methods. Contact your local water district for specific information.

BEFORE YOU START:

1. This lesson is appropriate as a Science Fair Investigation because it includes a variable experiment.
2. Premix a large container of dirty water for all groups to use.
3. Students should work in groups of 3 or 4.

MATERIALS:

per group

3 plastic or paper cups
scissors

1 piece of cloth
1 coffee filter

1 paper towel
glue

1 container of dirty water (1 tsp. of soil stirred into 10 oz. or 300 ml of water)

PROCEDURES:

1. **Droid Link:** Take the question from H₂O, ... "Here's a real experiment to do. How well do different materials filter water?"
2. Show the class the 3 filter materials to be used. Demonstrate how the experiment will be set up as follows:
 - a. Place one filter material over the opening of the cup drooping it loosely into the cup. Do this for each test material.
 - b. Students will pour $\frac{1}{3}$ of the dirty water into each cup and observe the filtering process and results.
3. Once the students have heard the directions of what to do, introduce the word, "hypothesis," and discuss. Note that a hypothesis has a reason for why the results are expected.
4. Students cut out the 3 materials from the bottom of the page and make a hypothesis by gluing the pictures onto the "I think" section of the activity sheet.
5. Students will test the filter materials by following the directions given above.
6. Students will observe the filtration and make their conclusions by cutting the remaining pictures out and gluing them onto the "I found" section of the activity sheet.
7. Discuss the results. Emphasize that this was an experiment because the class tested different materials to see if the results were affected by using them.

CLOSURE:

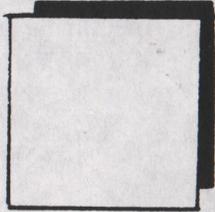
8. Hold up another container of dirty water and ask the class, "Which material should I pour this water through to get it the cleanest? Why?"
9. Answer H₂O's question and enter it into H₂O and the Student Droid Booklet.

FILTERING

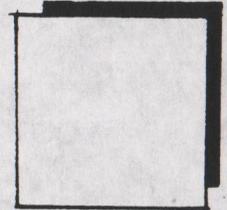
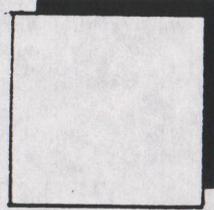
Name

Max Cartu '91

I think

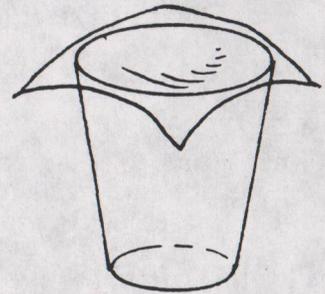
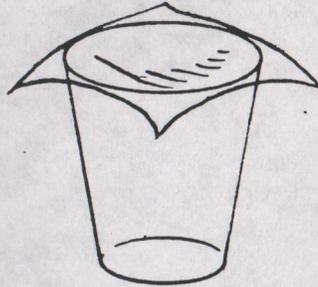


BEST FILTER 😊

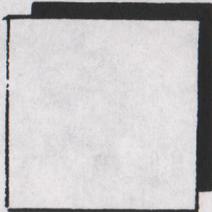


WORST FILTER ☹️

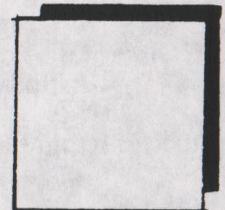
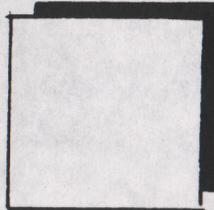
Testing



I found



BEST FILTER 😊



WORST FILTER ☹️

I think

I found

 Papertowel	 Cloth	 Coffee filter	 Paper Towel	 Cloth	 Coffee filter
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