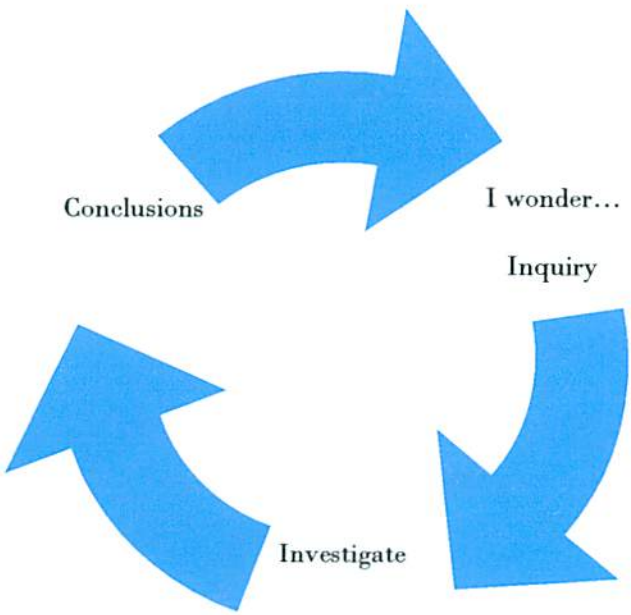
Ashaway School Science Journal

December of 2009
Trimester 1

The Ashaway School Science Journal highlights the observation and investigative work of our school's young scientists.



Ashaway School Science Teachers

Grade 1

Christine Austin
Patience Breault

Grade 1/ 2 Split

Annie Campbell

Grade 2

Kim Allen
Gina Lee

Grade 3

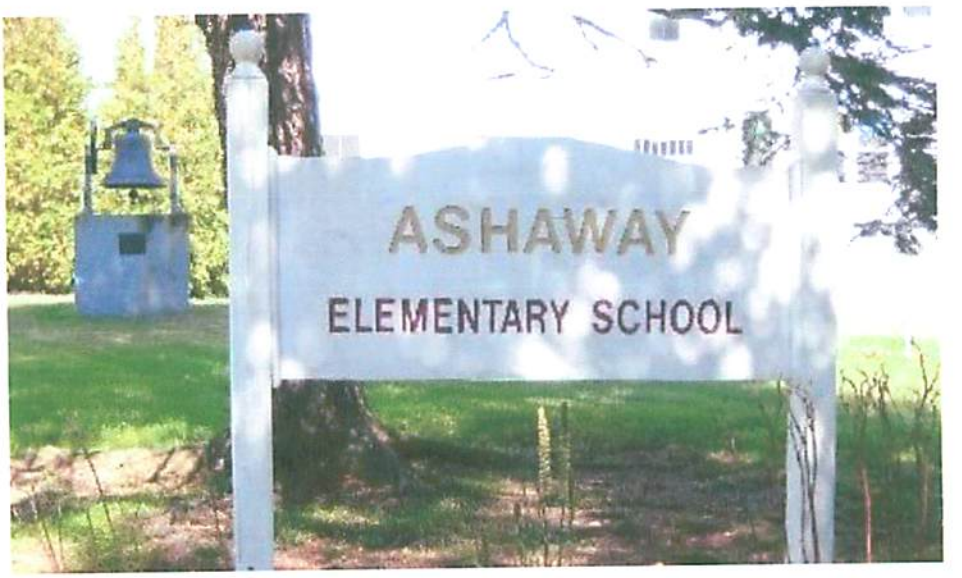
Patricia Pearce
Kelly Vocatura

Grade 4

Clare Ornburn
Julie Young

Published by Principal Steven Morrone

This journal is dedicated to all of the students and teachers of Ashaway Elementary School.



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First Grade Science

Pebbles, Sand, and Silt

Overview:

The pebbles, sand, and silt kit consists of four sequential investigations, each designed to introduce concepts in earth science. The students investigate rocks as earth materials and natural resources.

Goals:

*The students observe, describe, and sort earth materials based on properties.

*The students separate earth materials by size, using different techniques.

*The students observe the similarities and differences in the materials in a river rock mixture: silt, sand, gravel, and small and large pebbles.

*The students organize and communicate observations through drawing and writing.

Mrs. Christine Austin
Mrs. Patience Breault
Mrs. Annie Campbell

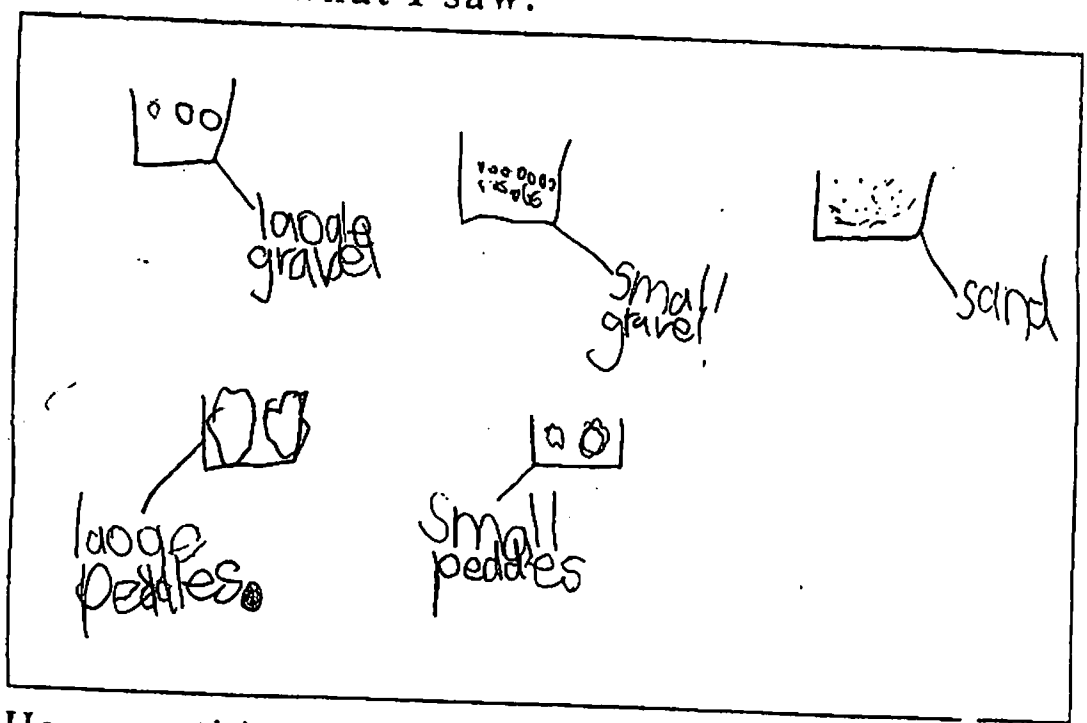
The following pages display first grade student work around making observations. Students sorted different types of materials and classified them into groups. Students also are in the developmental stages of observation. They are learning to use prompts such as I observe or I noticed.

Samantha Snyder Observation

10-26-01 Date

I looked at: river roks.

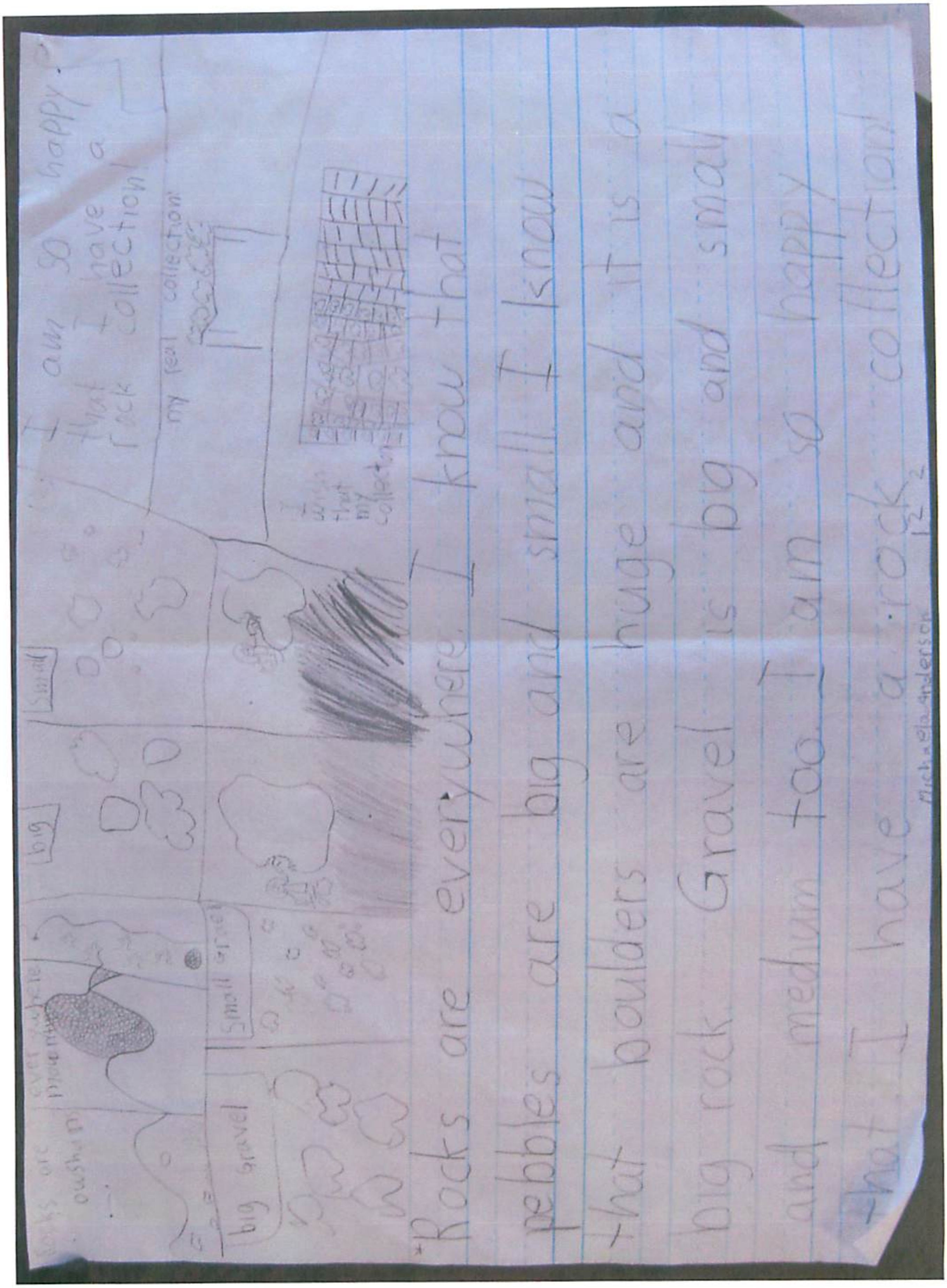
A picture of what I saw:



Here are things I noticed:

laoge peddles small peddles laoge gravel small gravel. sand.

Samantha Snyder
Grade 1



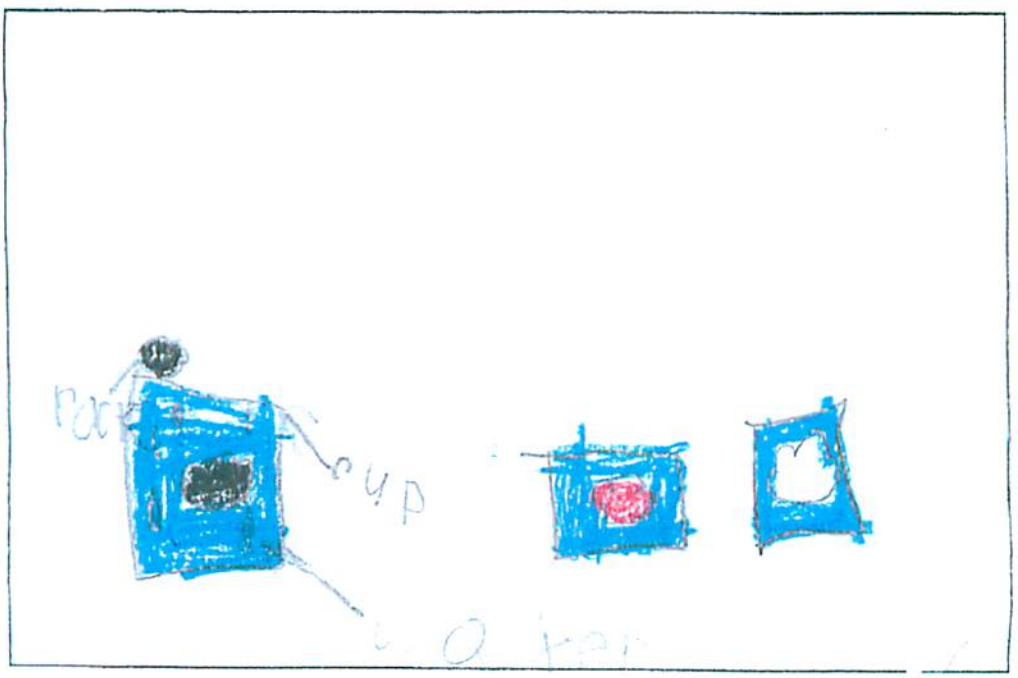
Michaela Anderson
Grade 1

AYA's Observation

10-14-09 Date

I looked at: 3 rocks in water

A picture of what I saw:

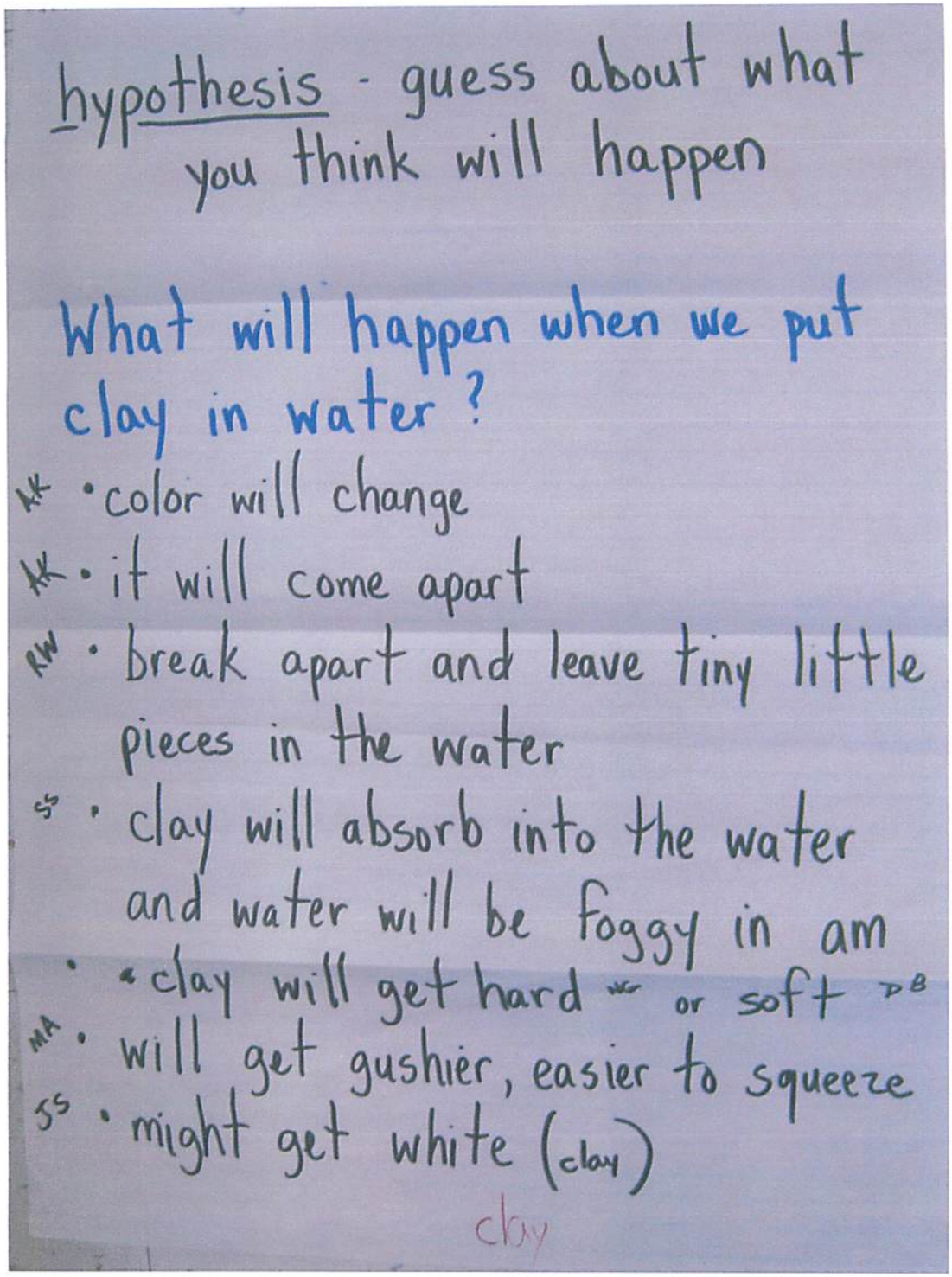


Here are things I noticed:

I noticed that bubbles were coming

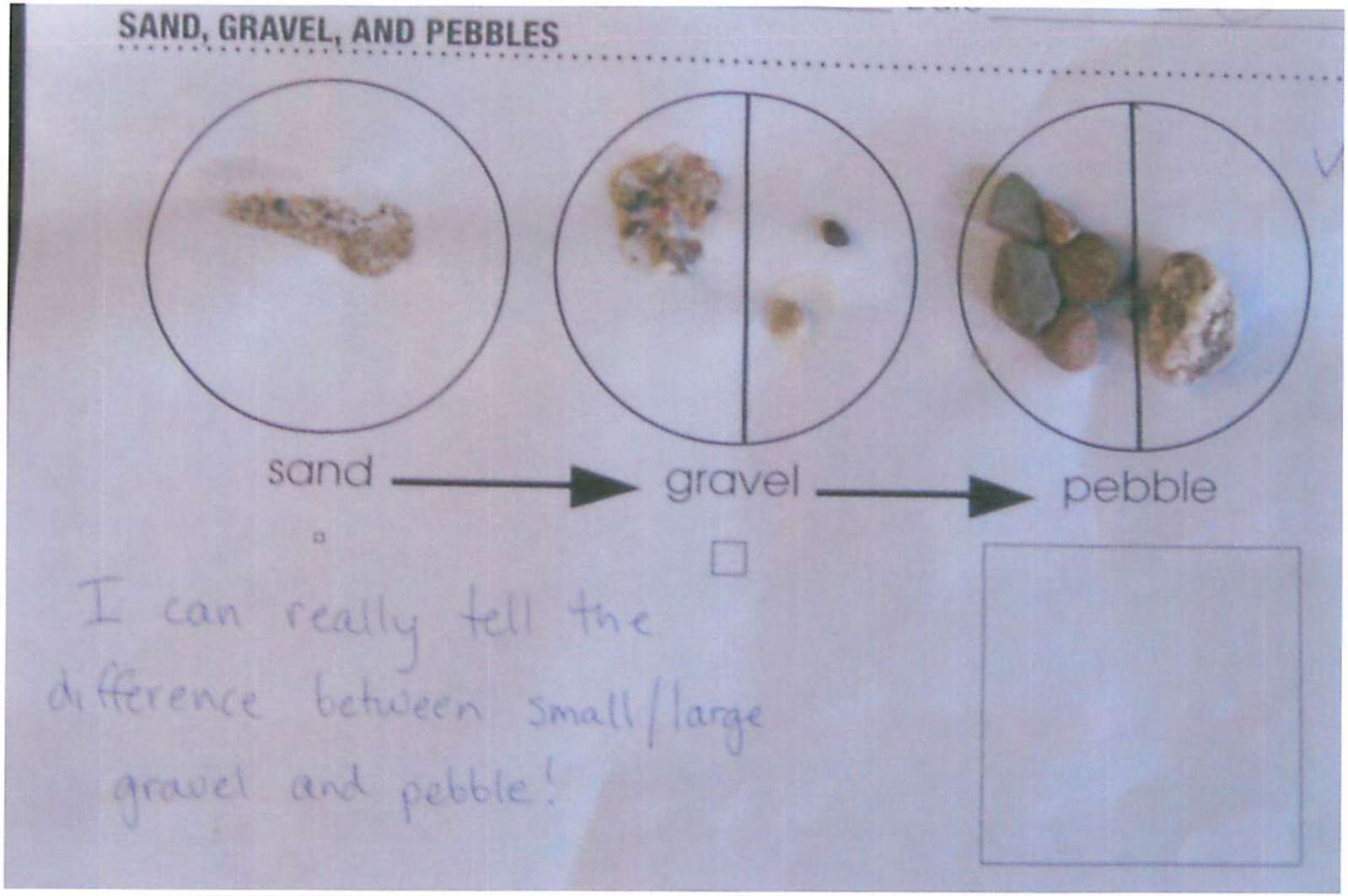
I saw that water stuff was making the egg

Ayla Angrisani
Grade 1



Students in a first grade class made predictions about what would happen when they put clay into the water.

-Mrs. Austin's First Grade Class



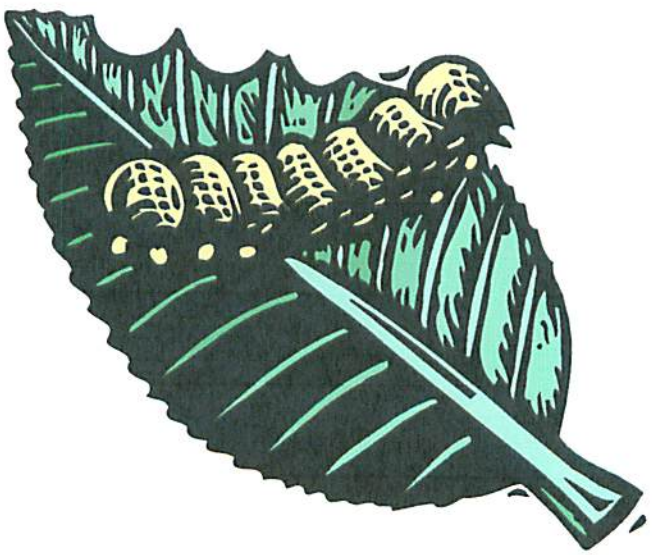
A first grade student sorted the materials into three categories, sand, gravel, and pebbles.

Faith Ells
First Grade

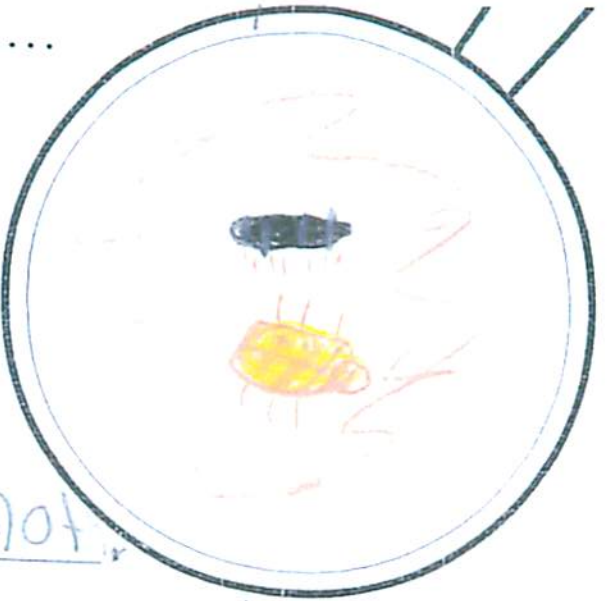
Second Grade Science

Our second grade science unit is the study of insects. Students learned the basic needs of different types of insects through hands-on experiences. They used inquiry by observing, noticing and collecting data on these insects. Students recorded their observations in a science notebook. They were able to observe each life cycle, noting each stage of its development. Students compared and contrasted the mealworm and wax worm using a Venn diagram. They were required to label a diagram of an insect using the correct vocabulary words. At the end of the unit, each student wrote an informational report on a specific insect. We now have a published book for view in the Ashaway Library.

Mrs. Kim Allen
Mrs. Annie Campbell
Mrs. Gina Lee

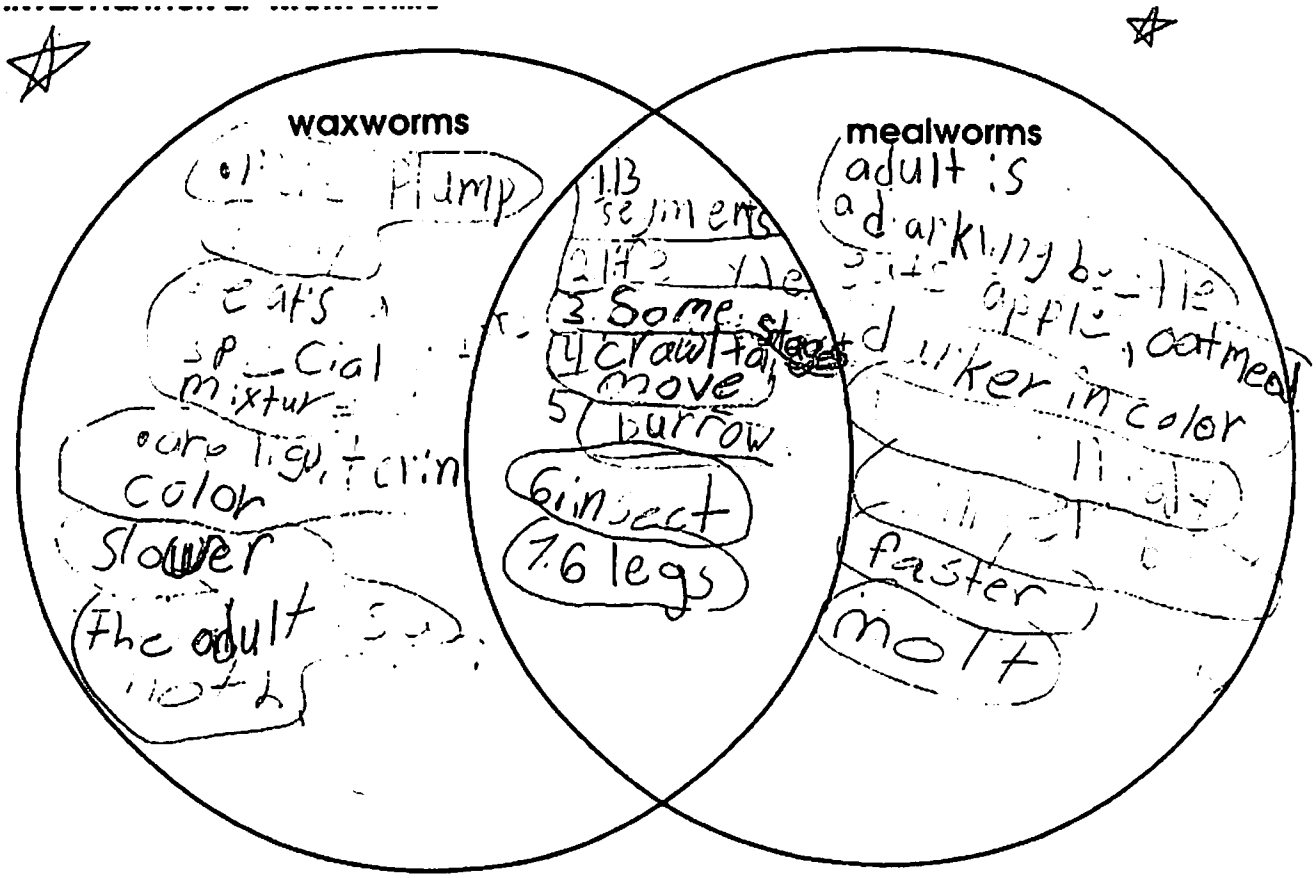


INSECT RECORD ..... WAX MOTH .....



I observe the wax moth.
I noticed some of them were black
and hanging I am gesing it is in the
pupa. We saw two in the adult. I saw
no eggs.

Megan Bradley
Grade 2



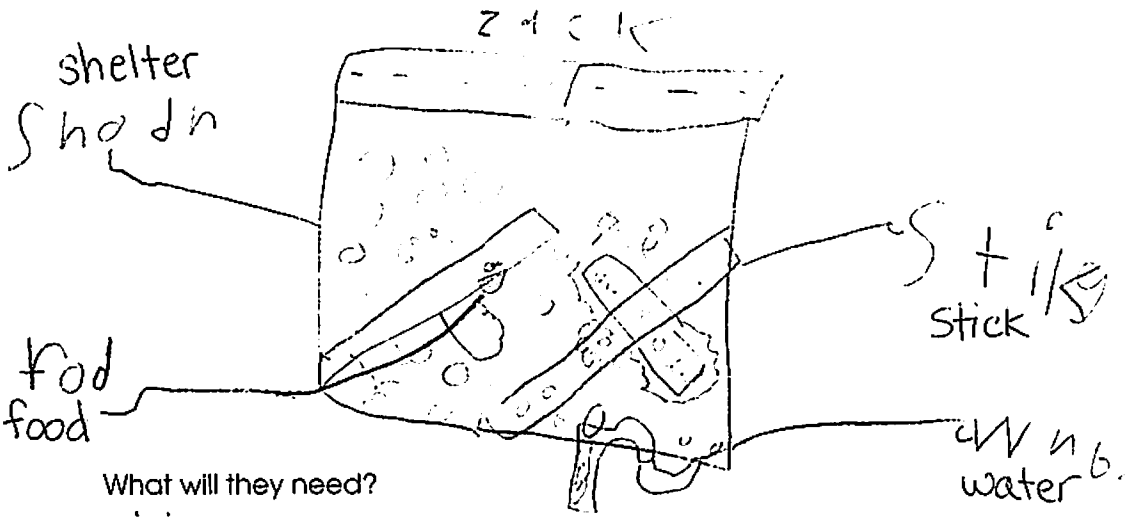
VENN DIAGRAM

Second grade students compared and contrasted the wax worm with the mealworm.

Tia Sardelli
Grade 2

MILKWEED BUG HABITAT

Draw the home you have made for the milkweed bugs.



A second grader's labeled diagram of a milkweed's home.

Zack Thompson
Grade 2

Cricket Facts

When you here chirp chirp it might be a cricket! They would rather call at night for mating. The stages of the cricket's life cycle are egg, nymph, and then adult. The first stage is the egg. The female has an ovipositor that the eggs come through. The next stage is the nymph. The nymph looks like an adult, but smaller. Finally it's an adult cricket. The adult dies in the fall. They are from two to five centimeters to one inch long. The ant loving crickets are wingless. They live in ant's nests. That kind of cricket is tiny. I love crickets and they were fun to study.

Chloe
Grade 2

Grade 3 Science

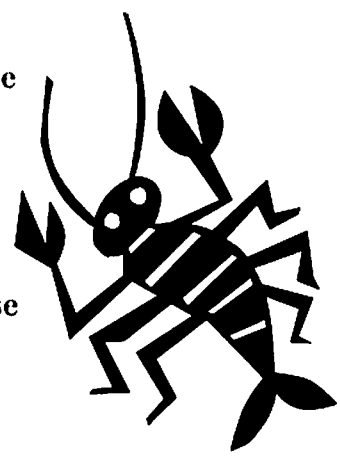
Structures of Life

Our third graders have completed the Gems Net Structures of Life unit. In an effort to incorporate science writing, graphic organizers, lab report formats and science related prompts were used.

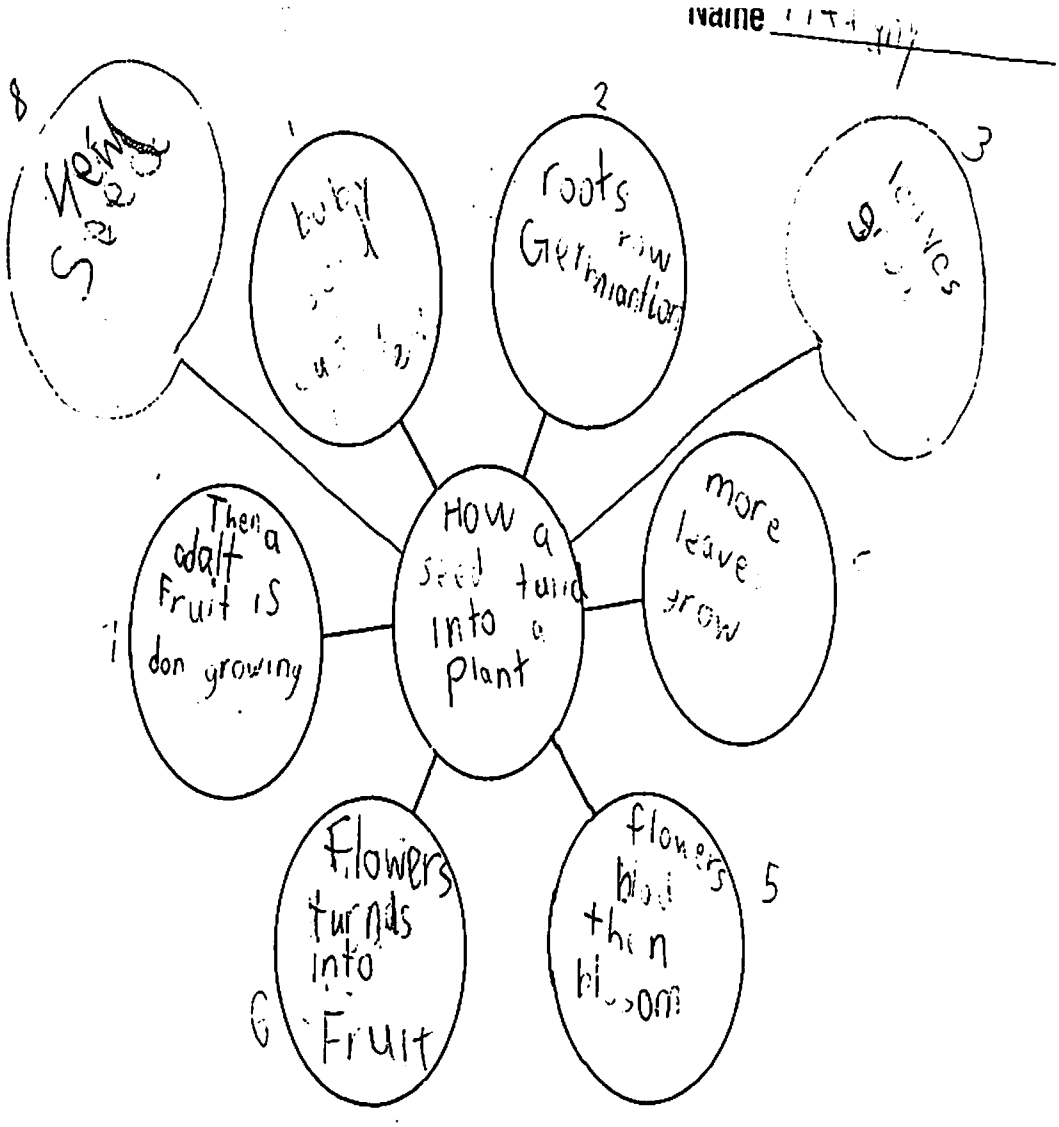
We began our unit with the sequence of plant growth and tapped into prior knowledge. This group of students also studied plants in first grade. After we finished, the students were asked to fill in a bubble map using the sequence of growth they had just learned. They then turned the bubbles into sentences and completed a paragraph explaining plant growth.

The third graders were then exposed to the lab report format as they set up the experiment with plants. The hypothesis was to answer the question: Do plants need soil to grow? As the plants grew, data was recorded. After a set amount of time, the students then wrote the results and conclusions using writing prompts from the book, Writing in Science. They were asked to accept or reject their hypothesis and come up with an "I wonder what would happen if....." at the end of the lab experiment.

Lastly the students had the opportunity to set up a habitat, observe and care for crayfish. To end our unit, the students were presented with a Venn diagram and asked to write the similarities and differences for plants and crayfish. After the diagram was completed and discussed. The classes wrote a paragraph, followed a rubric, and shared their paragraphs with each other. These essays were used to assess the science unit.



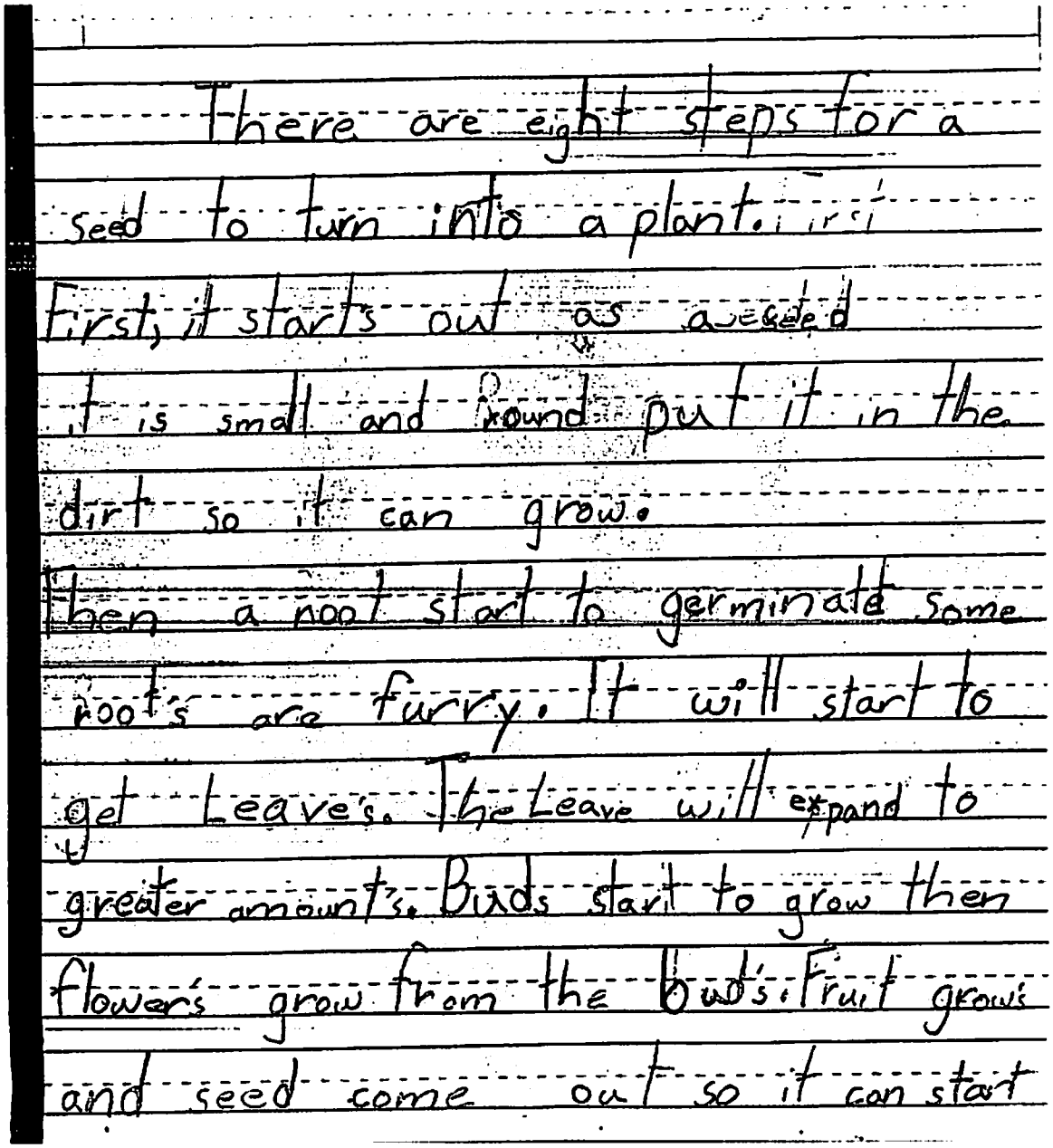
Mrs. Patricia Pearce
Mrs. Kelly Vocatura



A third grade student lists the steps of how a plant grows in the form of a bubble map.

Tiffany Buck
Grade 3

How a seed turns into a plant?



There are eight steps for a seed to turn into a plant. First, it starts out as a seed it is small and round put it in the dirt so it can grow. Then a root start to germinate some root's are furry. It will start to get Leave's. The Leave will expand to greater amount's. Buds start to grow then flower's grow from the bud's. Fruit grow's and seed come out so it can start all over again.

Gillian Mitkowski
Grade 3

Lab Report Format—Do Plants need soil?

Name Grace Date _____

Growing Further Lab Report

Observations: Staple to this sheet

Problem: Do plants need soil?

Gather Information:

What do healthy plants need to grow?

1. Minerals
2. Sunlight
3. water

Hypothesis: *(What do you think? Make a smart guess!)*

Do plants need soil?

yes, Because Minerals is Soil and Minerals is 1 of the three things they need.

Experiment: *(Fair Test)*

Materials Needed:

2 bucket ; Seed Supporter
H2O
minerals

Procedure: 1. Fill bucket of water let sit Overnight 2. and minerals to one bucket 3. Carefully Slide Seeds into Supporter 4. Place Supporters in both buckets 5. Observe for five days. 6. Record Observations.

Grace Bueno
Grade 3

Analyze Results: *(Outcomes and Why)*

I Observed that the plants in bucket #1 (minerals) grew 3¼ cm. the plants in bucket #2 (no minerals) grew 6 3/4 cm.

Results:

It reminds me of When I went in my mom's garden because the plant grew tall. soil When we added minerals it did not help.

At first I thought that the minerals plants would grow taller. But now I Know they did not. It Surprised me that the plants grew taller in the plain water because I thought more minerals would help the plants grow better. I wonder what would happen if you gave them really hot water.

Draw Conclusions:

1. *Restate Hypothesis*
2. *Explain out come*
3. *Accept Hypothesis*
4. *Reject Hypothesis*

yes plant need soil

My hypothesis was wrong I was wrong because plants do not need soil and I gatves. I reject my hypothesis. I now know that my hypothesis was wrong.

Reflection: (What would you do differently? How would you improve the experiment?)

I would put no minerals in the buckte, I will improve by lising more to the techer.

Grade 3 students used Venn diagrams to compare and contrast plants and crayfish. The following pieces of student work are examples of their conclusions.

Versus

Avery Moody

3V

The crayfish and the plant are similar because They both need water. If they dont have water cant survive. Also they are both alive. They are alive because the crayfish are able to eat, pinch, walk, and swim. The plants are qually alive to because they are able to move and you have to take care of it so it can germinate. they also have a lifecycle. The crayfish will only last for a few days. Plants can last for a long time but some could be just like a crayfish.

Plants are diffrent because they grow fruit. After the leave grow they grow fruit on the leaves and then you can pick the fruit and eat it. Also plants can grow with, minerals. When they have minerals they can germinate. Plants are also green. It would be weird if there was a green crayfish.

Crayfish are diffrent because they have a mouth. they have a moth so they can eat. If they didint have a mouth what would they do? Also they eat catfood. Catfood is a crayfish favorite food. Crayfish need homes. If they dont have homes then they could go extinct.

Avery Moody
Grade 3

-> The crayfish and the plant are Similar because they both need Somewhere to live, water and Sometime die. If the crayfish and the plant didn't have a place to live they would sure die. If the crayfish and the plant have water Sooner or later they would die. Sometime in a crayfish and a plants life it comes to an end and they die. This is the end of the life cycle.

-> Plants are different because they stay in one place unlike the crayfish. Plus it grows fruit and crayfish don't. The plant is also different because they grow roots instead the crayfish grows legs.

-> Crayfish are different because they have pinchers to protect themselfs and plants don't. They also lay eggs to have babies. But a plant drops a seed instead. The crayfish is brown and a plant is green.

Malese Fanning
Grade 3

Grade 4 Science

Land and Water

"This unit challenges students to learn more about the relationship between land and water in their natural environment by conducting a series of classroom investigations that center on a stream table. Using this model, students study the properties of earth materials and observe how runoff causes stream formation, how soil is deposited, and how water shapes land. They study groundwater, learn about the source of their drinking water, and how plants control erosion. They also test the effects of land formation on water flow by placing rocks and hills on the land and building a dam. The stream table also serves as a basis for investigations of the water cycle. Students create and use aerial diagrams to examine the parts of a stream system in their models. In a final embedded assessment, students apply their knowledge gained in the unit by creating their own landscapes and selecting an appropriate place to situate a home site." (Gemsnet Kit)

Mrs. Clare Ornburn

Mrs. Julie Young

Christian Sardelli
Grade 4

Question
Answer

11/19/09

How do rocks and other natural dabry effect the path of the water?

I think that the water will push the small debry to make a dam wile the big debry stays. The water will eventualy go under the big debry because it go fend up the land underneath it. Once all the water goes by, the big debry will sink into the land.

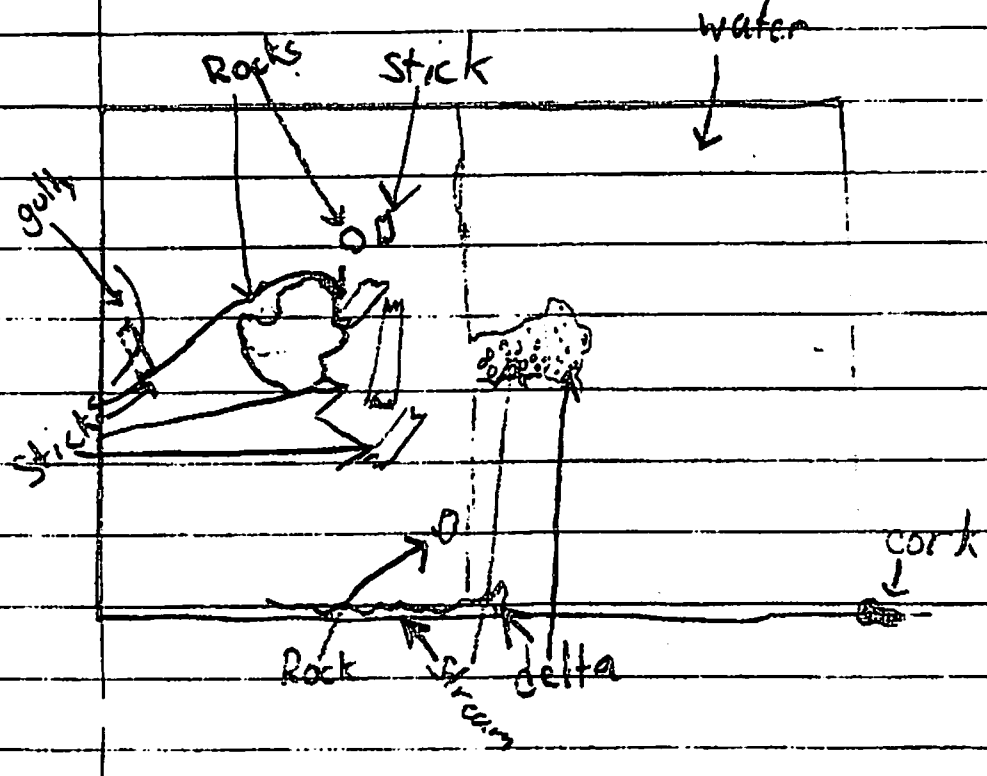
11/23/09

Same: land scape, procipr, amount of water, multiple trys, matierials,

Fiffernt: whats in land (debry)

11/23/09 Experament/observation

- went under sticks (softend sand underneath)
- small rocks were absorbed by sand
- 2 streams (one down side, other middle
- delta has lots of gravel, so does stream
- under rocks too (same reason as 1)
- sticks fell in stream and gulf



Devon DiPalma
Grade 4

11/25/09 Conclusion

The rocks and natural debris affected the path of water by causing the stream to make two different paths. For example, our stream that had debris curved around, while the stream with no debris was straight. For example, the stream with debris had several streams, while the stream with no debris had only one stream. Also the stream with debris had a smaller area while the stream with no debris had a larger area. Therefore, rocks seem to effect the path of water, but sticks didn't seem to effect the path of water. The data do not support my prediction because I thought water would carry the sticks but instead the water went under the sticks.

I think that happened because the sticks are to heavy to carry. I wonder if I had pushed the rock down into the soil if the water would still go under it?

Nikki Drake
Grade 4

11-25-09 Conclusion

The rocks and natural debris affected the path of water by going slower because of the debris in the way and the force wasnt hard enough so it had to split the path of water.

For example, are stream with debris seemed to wind around the debris, but the stream with no debris was straighter. Also the stream with debris had a small delta, while the stream with no debris had a larger delta.

Therefore, rock affected the path that the water toke and the sticks didnt do any thing.

The data did support my prediction because it did go around the rock. but not the sticks but I did think it would go around all debris.

I think that happend because the s- were lite and there wasnt much force so it went under instead of over a

around and I think it went around the rocks because it was heavy so it went around and there wasn't much force so it went around the rock.

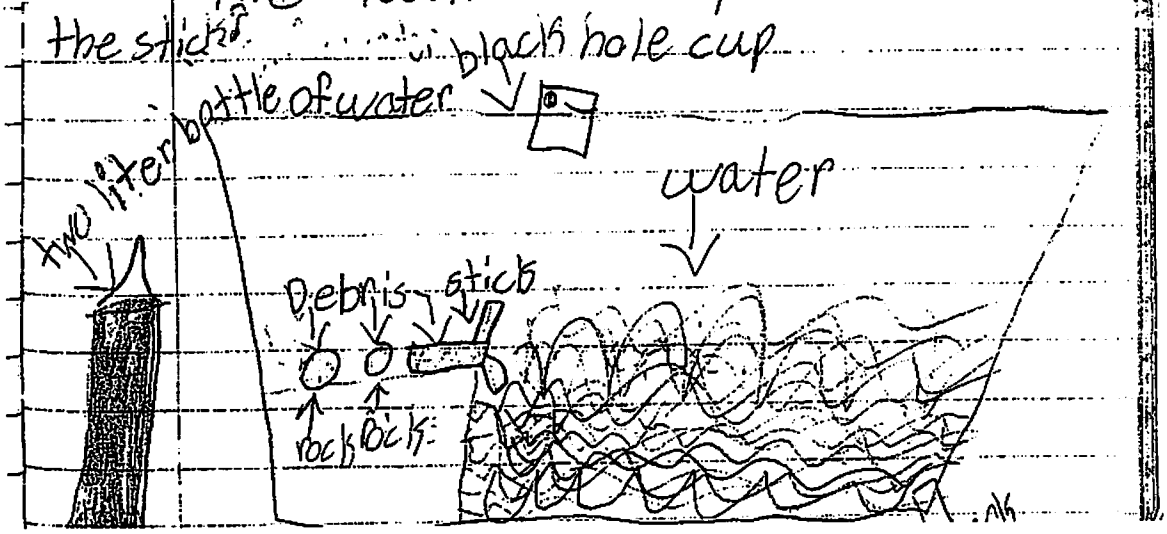
If I had more time I would change the slope to see if the force of water would be able to move the rock.

Luke Elson
Grade 4

11/25/09 Conclusion

The rocks and the natural debris affected the path of the water by causing the paths to go two or three different ways. For example, the stream we did before the delta was longer and this one was smaller because the debris made the force slower. Another example is there was more run off before, and this time there was less because the debris blocked the water like a dam. Therefore, rocks seem to effect the path more then the sticks seem to effect the path. The data did not support my prediction because the water went around

the rocks or under the rocks and sticks but I thought it would go through the cracks. I think that happened because rocks got pushed down so it would of gown around the rocks. It went under the sticks because the sticks weren't pushed down. I wonder if we used two liter of water and used the black hole cup if it will move the sticks?



"I never did anything worth doing by accident, nor did any of my inventions come by accident; they came by work."

-Thomas Edison