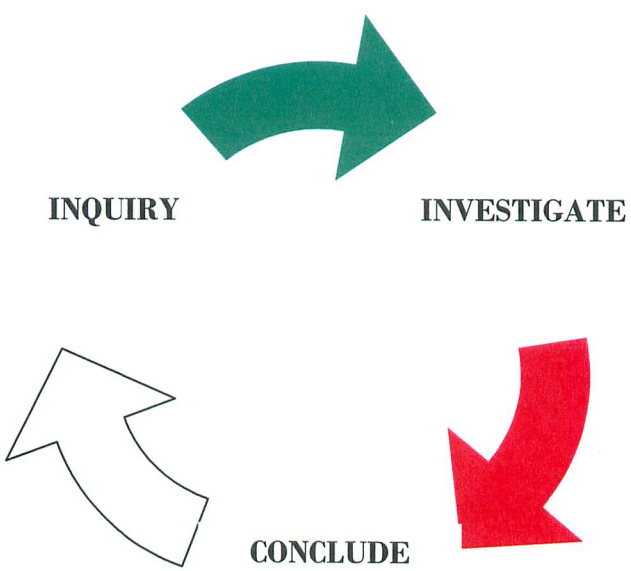
Ashaway School Science Journal

December of 2010
Trimester 1
Volume 2

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



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Kindergarten

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Grade 1

Laurie Gigliotti
Patience Breault

Grade 1and 2 Split

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Grade 2

Patricia Pearce
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Grade 3

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Grade 4

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Julie Young

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Edited by Lori Bouchard

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Extended Day Kindergarten Science Observations

Students in Extended Day Kindergarten completed different observation investigations. The purpose of these investigations was for students to learn how to make accurate observations and use the sentence frames, "I notice and I observe."

Mrs. Koukas

Extended Day Kindergarten students are practicing making accurate observations. They are learning how to make observation statements with connections. This lesson involved students observing their thumb prints and discussing their observations and connections as a class.

Observation

I observed

a thumb print

I noticed

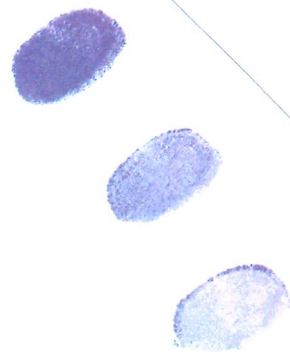
it is an oval, it has stripes and dots (lines).

It reminds me of

a paw print and baby bird eggs balloon Like in Cards Christmas

because

it is part of the hand and the shape.



When

You press your thumb in the ink, it will make a thumb print on the paper.

At first,

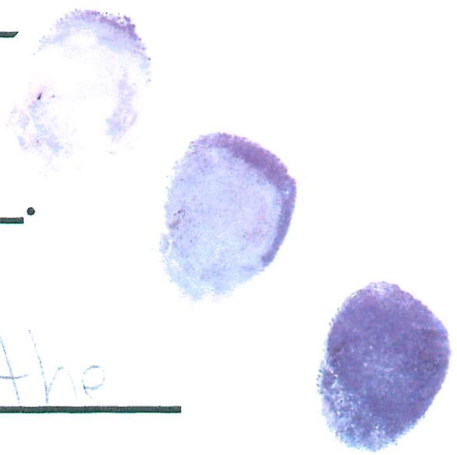
we did not see the lines.

But now

we can see the lines.

I am curious about

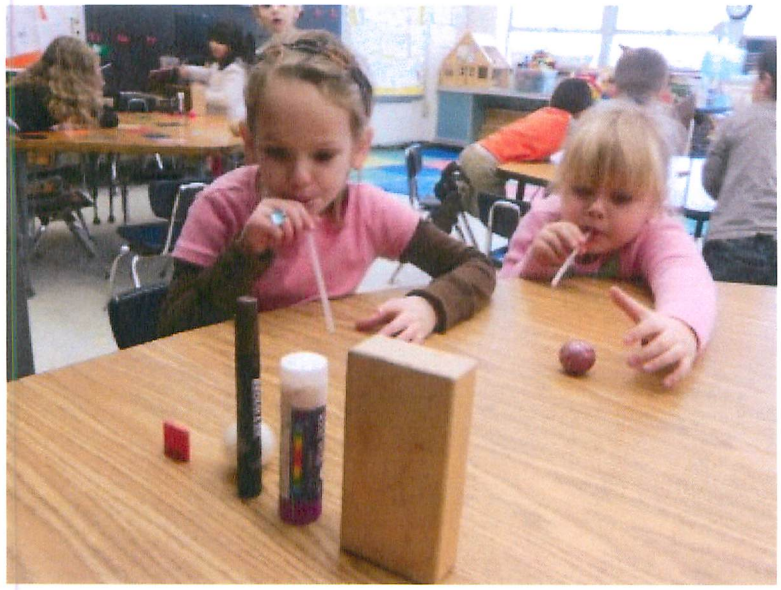
how the police find the thumb print and match it.



Kindergarten Science
Balls and Ramps

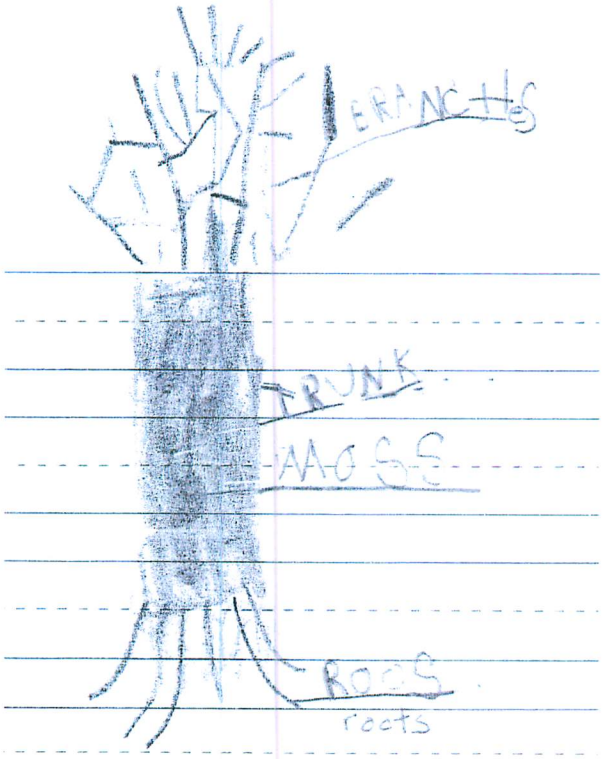
Kindergarten students at Ashaway School investigated the characteristics of different types of balls and their motion. They explored the physical properties of the balls and their behavior on inclined planes. Children learned about gravity, friction, and momentum.

Mrs. Smith

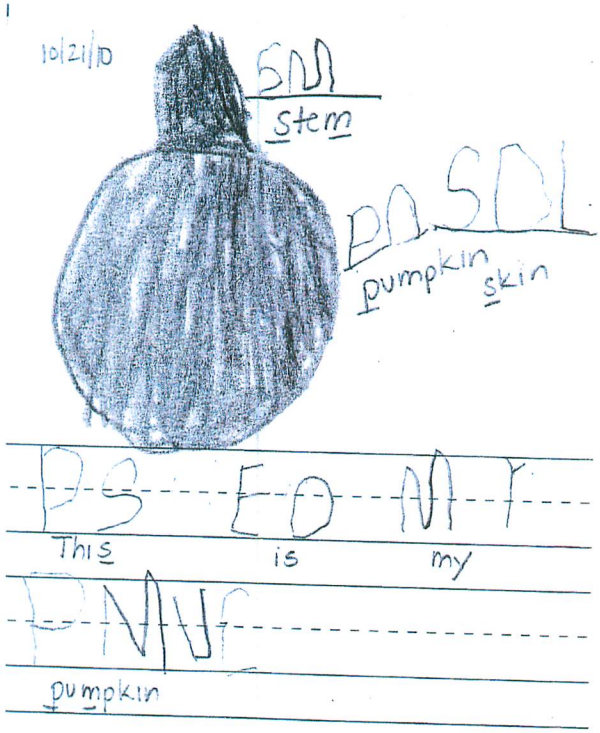


Kindergarten students have scientific illustration journals. The sole purpose of these journals is for students to learn how to draw accurate illustrations of what they observe and to label them. Our kindergarten students understand the difference between a picture and a scientific illustration. Scientific illustrations should include everything they see from color, shape, texture, etc...

Loreli S.
Kindergarten



Kyle A.
Kindergarten

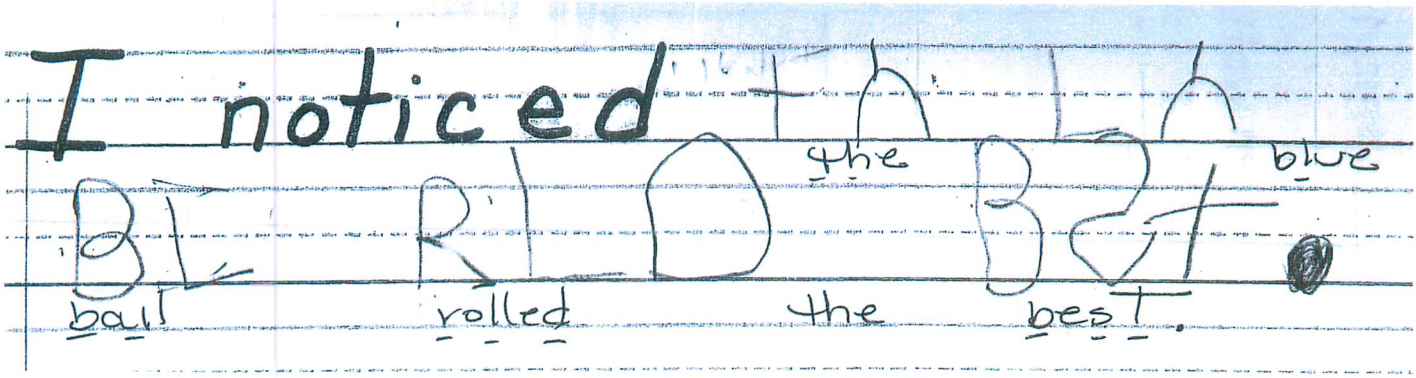


During one of the Balls and Ramps investigations students had to observe two different balls from their size to the way they bounce. This student noticed that the green ball was bigger than the blue ball. The green ball was heavier and more bouncy. After doing the investigation and recording their data in the chart below, they wrote an observational sentence.

Sofie S.
Kindergarten

Comparing Balls

bigger 	smaller 
heavier 	lighter 
more bouncy 	less bouncy 
best roller 	worse roller 



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.

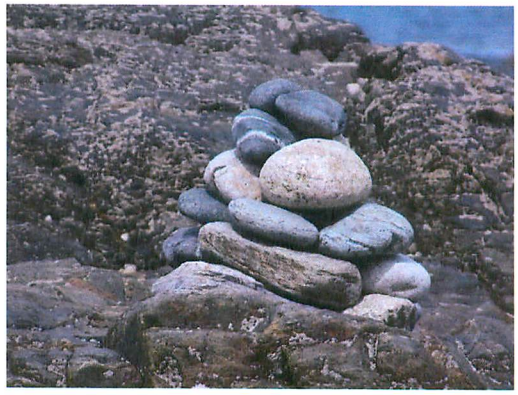
Goals:

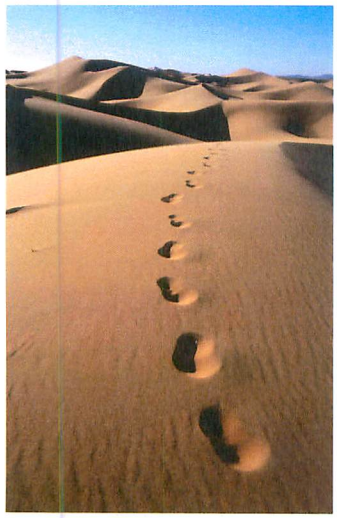
*The students observe, describe, and sort earth materials based on properties.

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

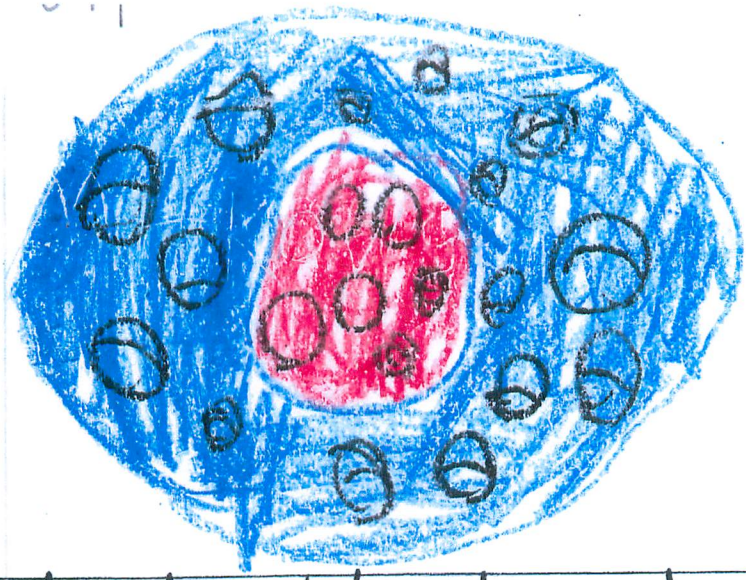
*The students observe the similarities and differences in the materials in a river rock mixture: silt, sand, gravel, and small and large pebbles.

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





Mrs. Breault
Mrs. Campbell
Mrs. Gigliotti



I predict that when I put the Red rock in water it wil Bbbrl.

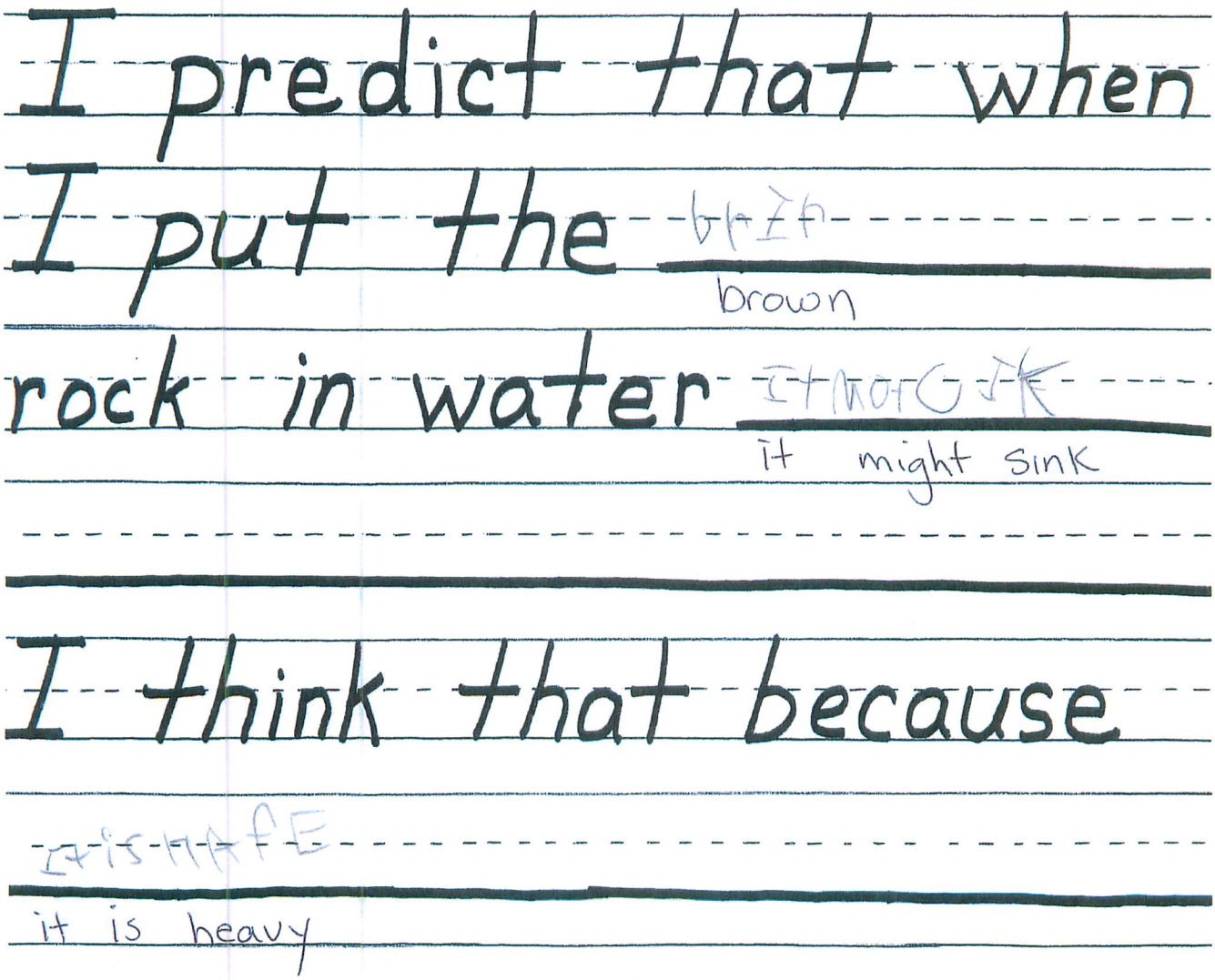
bubbles

I think that because it has orons

holes

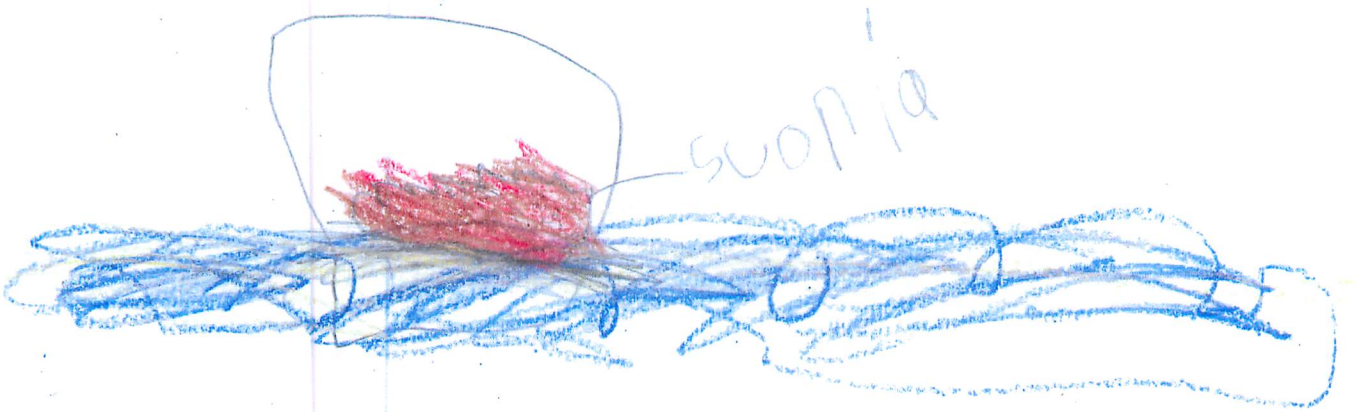
Each student had to observe a colored rock. After their observations, they predicted what would happen if we put the rock into a cup of water and state why they predicted what they predicted. Everett has a great prediction because his explanation is based on one of the attributes of his rock.

Everett M.
Grade 1



During one of the first investigations, students predicted what would happen if volcanic rocks were placed into water. Gabrielle thought about what she already knew about rocks to make her prediction.

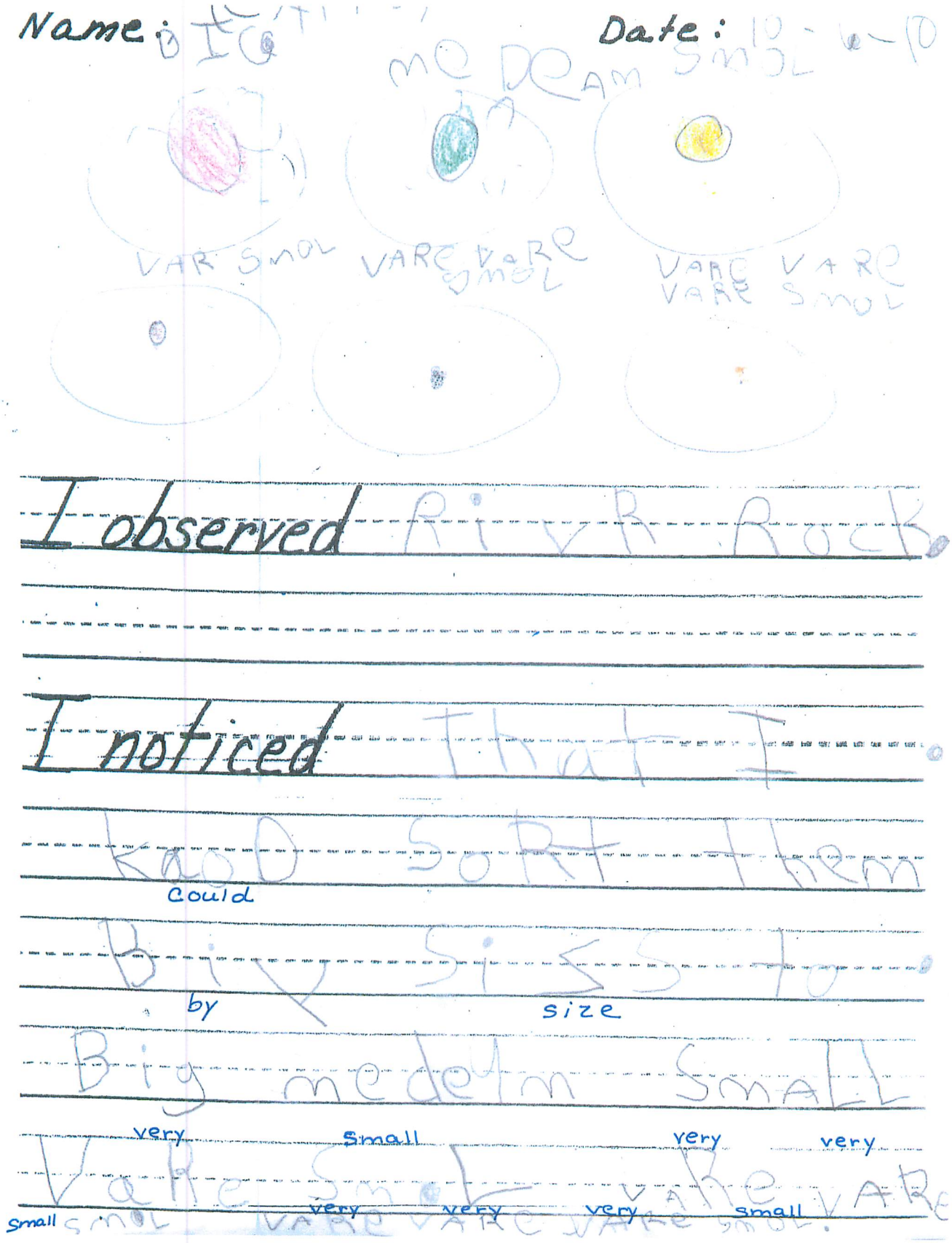
Gabrielle B.
Grade 1



I observed scoria
water in water. bubbles
I noticed scoria
that color brown
changed.

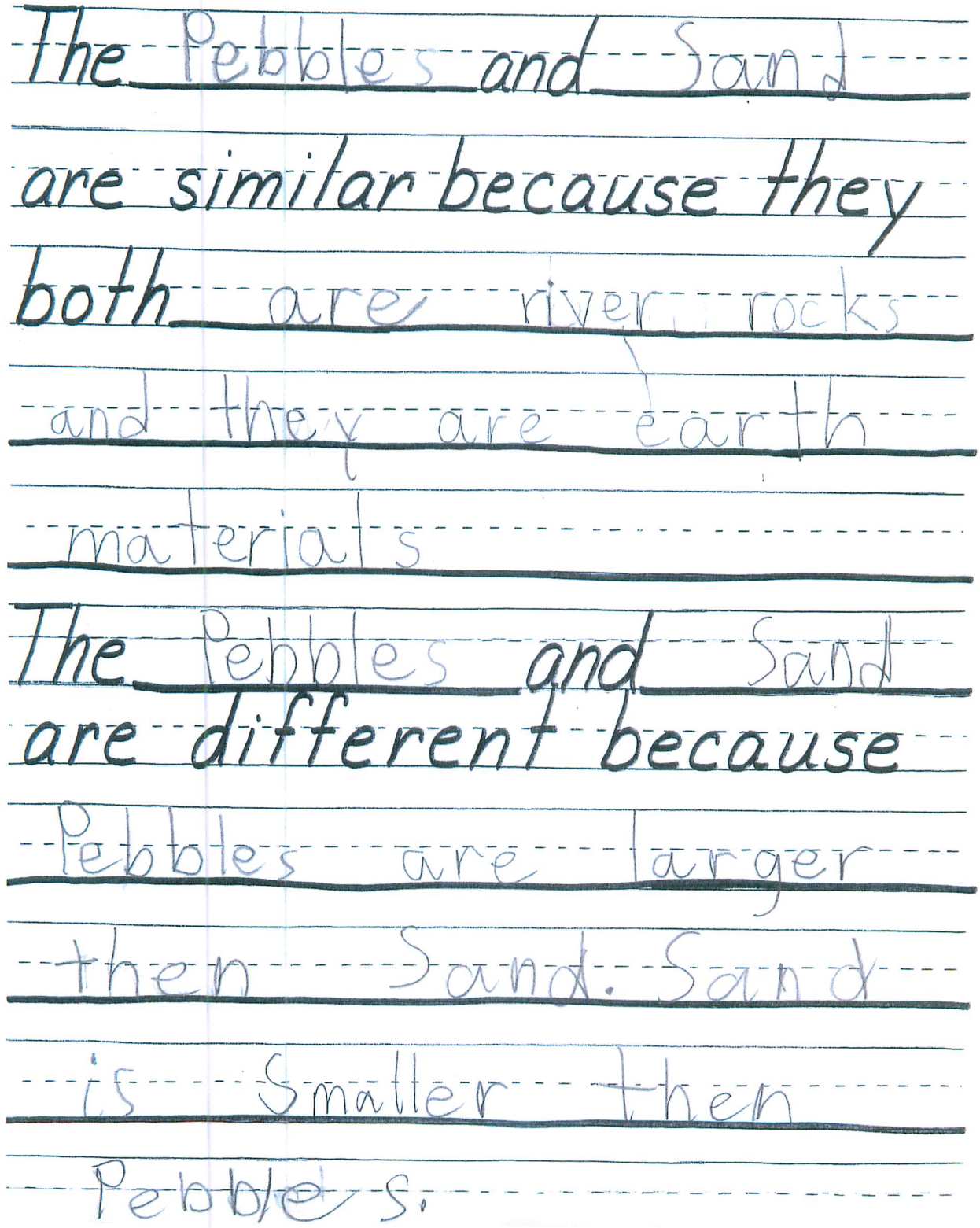
After students placed volcanic rocks into the water, they recorded their predictions. Nick noticed that the porous rock, scoria, gave off bubbles in water and also changed color. He also had a scientific illustration to go along with his writing.

Nick N.
Grade 1



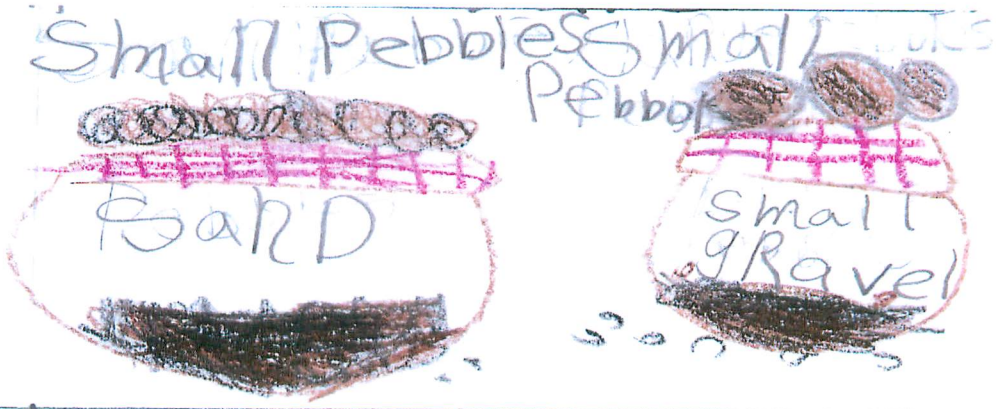
During this activity, students were asked to sort a group of river rocks according to one attribute such as color, size, or shape. Katelyn chose to sort her group by size. She provides an accurate scientific illustration of the rocks and labeled each group. She is also clear on how she separated them in her explanation.

Katelyn P.
Grade 1



Mrs. Gigliotti's class did a box and T chart together. They compared and contrasted pebbles and sand. Halina's writing piece has two details to show what is similar between the two rocks and what is different between the two rocks.

Halina S.
Grade 1



What happened when you screened the river rocks?

I NoDi S the SaND went to Roe the Screen.

Tell why that happened.

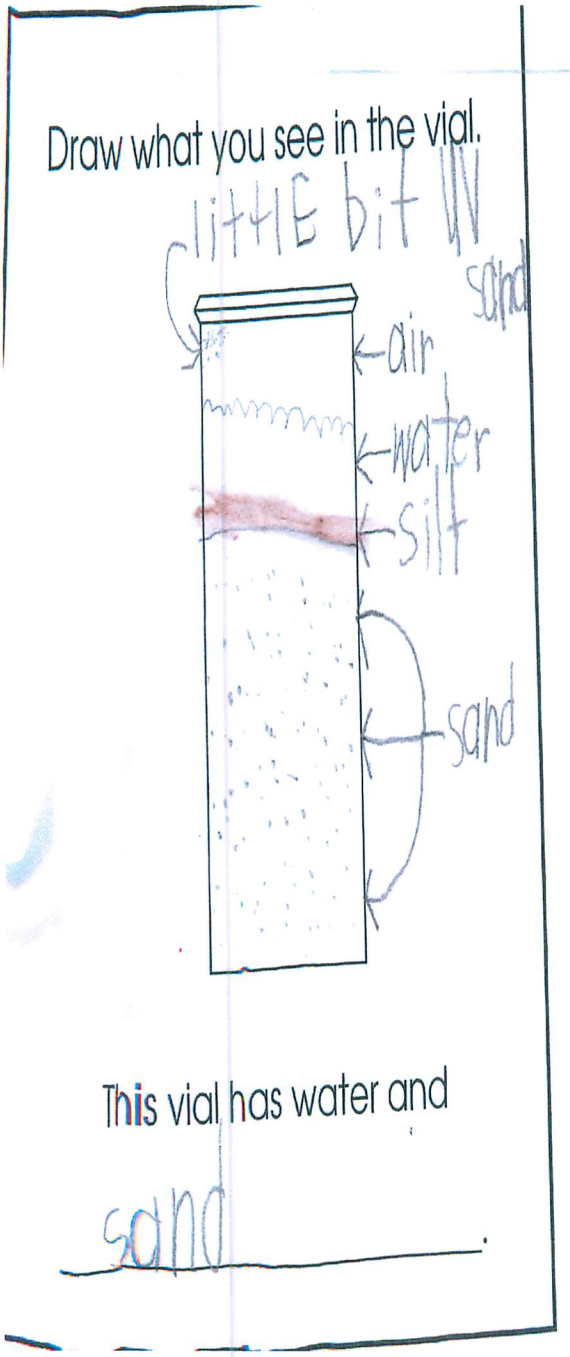
becas thay were Small.

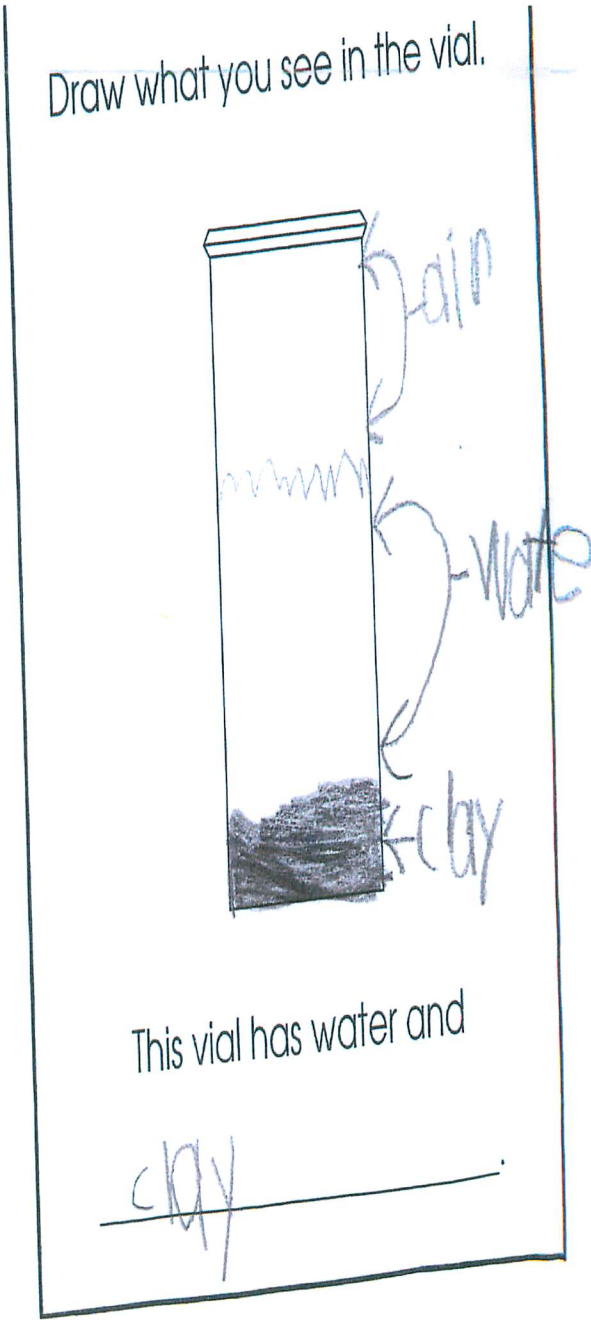
The students used mesh screens to separate a rock mixture. The different sized screens allowed smaller rocks to pass through, while the larger rocks remained on top. Cali showed two different screens in her scientific illustration. Sand went through the smallest screen and the small gravel went through the larger screen.

Cali C.
Grade 1

Students observed the contents of two vials. One had water and sand and the other had water and clay. They sat overnight in the classroom. The students had to draw a scientific illustration of their observation and then write a compare and contrast piece. Rocco's illustration is precise and accurately labeled. His written piece reflects his observations.

Rocco S.
Grade 1



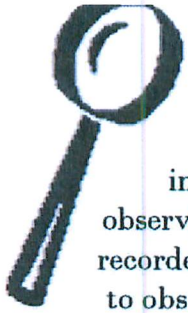


The sand vial and clay vial are similar because they both are earth material.

In addition, they both are discovered by geologist.

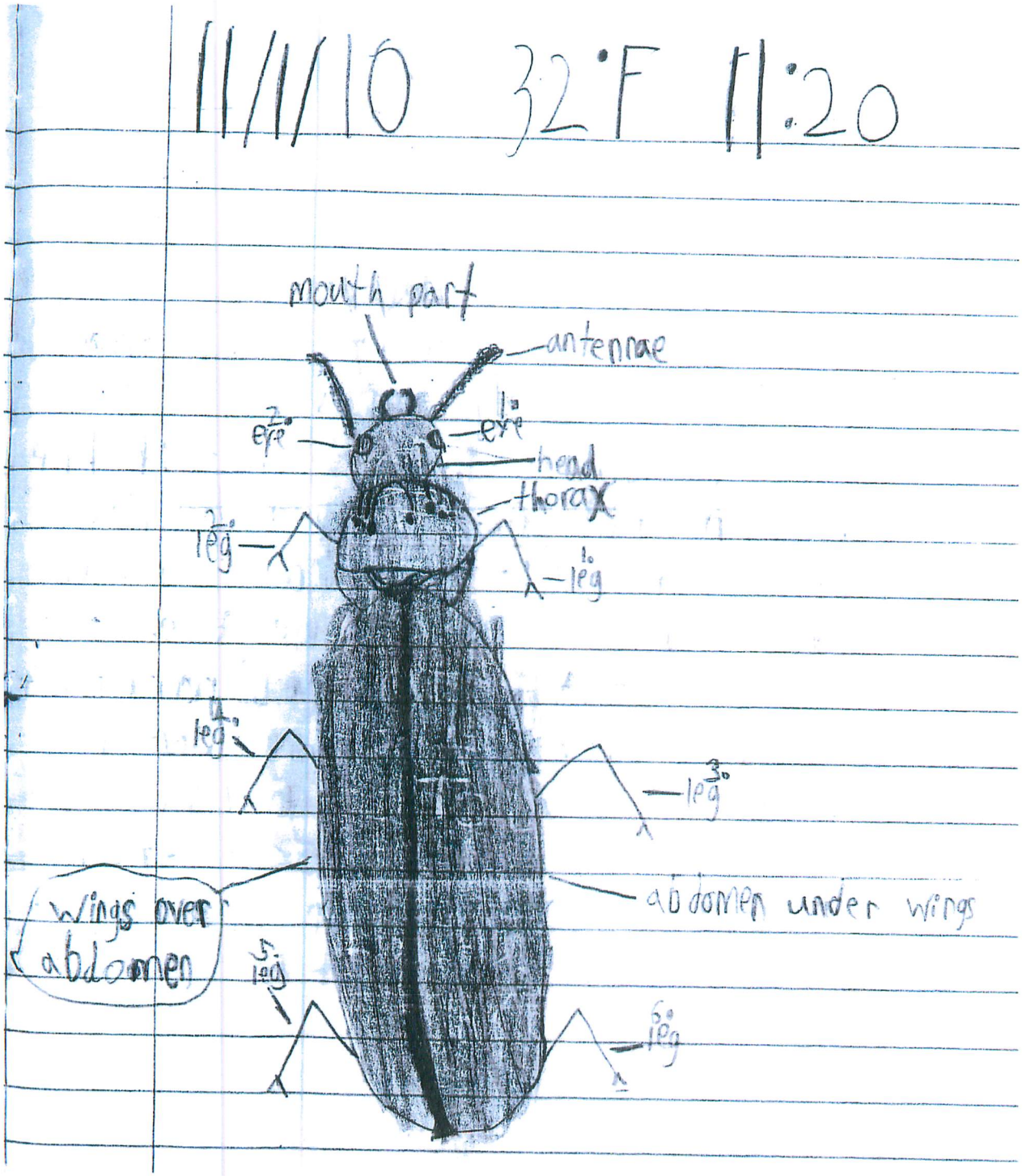
The sand vial and clay vial are different because they have difrit ms. names whereas one has silt and other does the utr one dus not.

Second Grade Science
Study of Insects



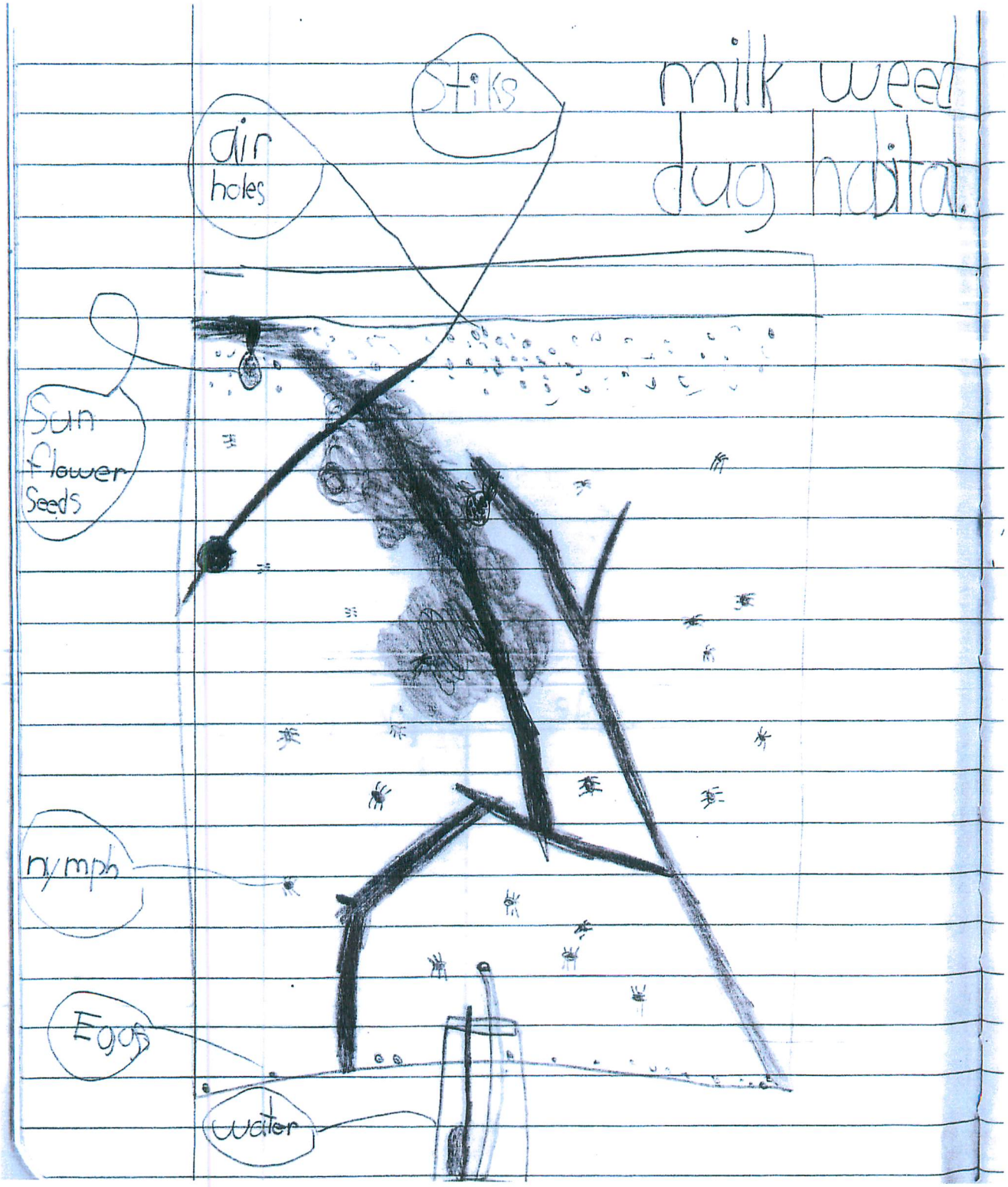
Our second grade science unit is the study of insects. Students learned the basic needs of different types of insects through hands-on experiences. They used inquiry by observing, noticing and collecting data on these insects. Students recorded their observations in a science notebook. They were able 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. Campbell
Mrs. Lee
Mrs. Pearce



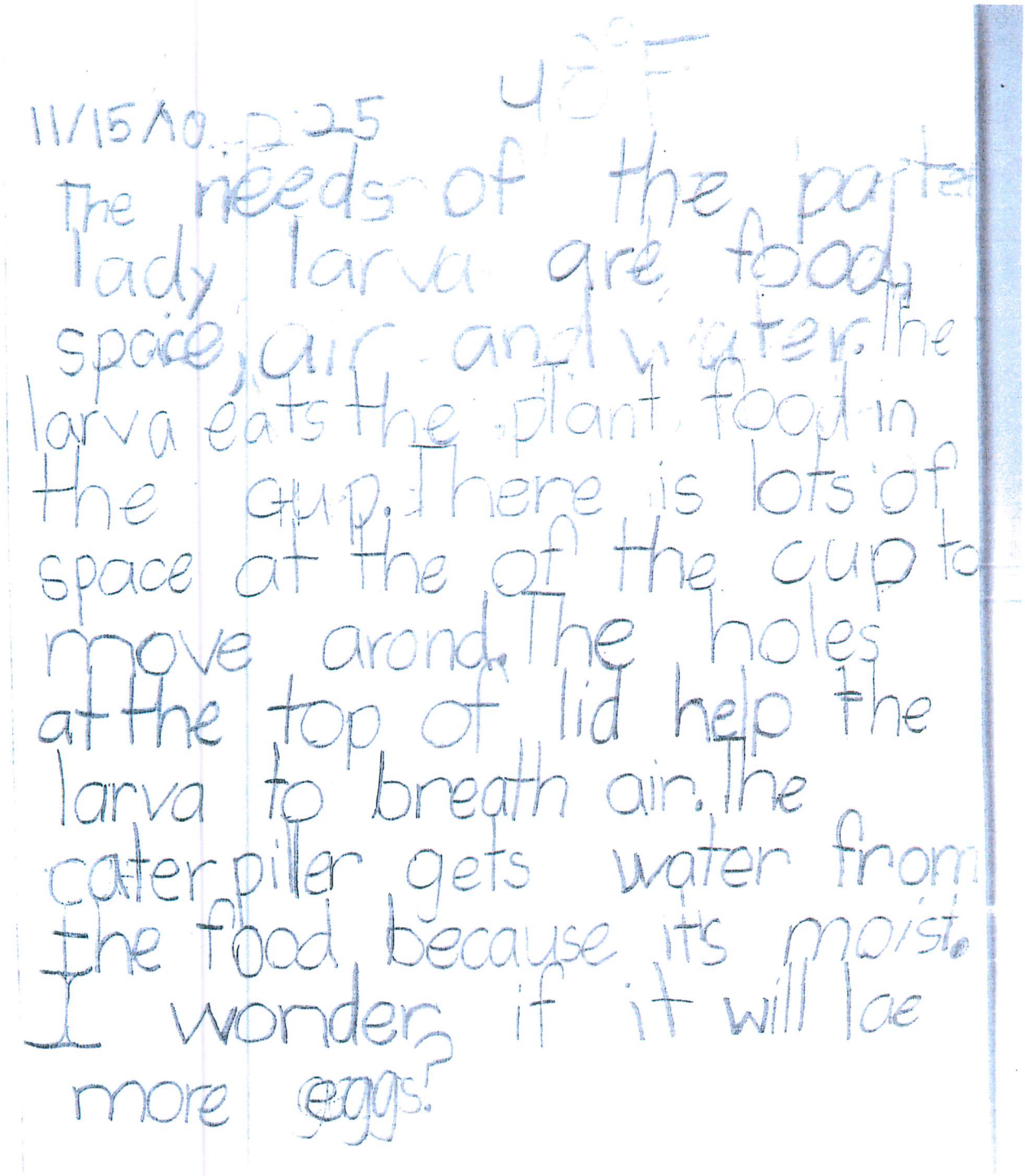
This is a scientific illustration of a darkling beetle. He included accurate labels for each of the sections of the insect's body.

Grade 2



Maya worked carefully to include details in her accurate scientific illustration of the milkweed bug habitat. She uses labels to explain what she drew.

Maya M.
Grade 2



Second grade students asked fourth graders questions about insects. One of the questions that the second graders asked but had to answer first was " what are the needs of the Painted Lady Larva?" Julia did a nice job answering the question using details and ending it with an I wonder statement.

Julia K.
Grade 2

The crickets and beetles are similaer because they are both insects. In addition they have 6 legs. They also have a head, thorax and abdomen. They have an exoskeleton. An exoskeleton is a skeleton outside of your body. And they also have a life cycle. they have in comon wings, but they dont fly. They are diffrent because the cricket has an incomplete metamorphisis and the beetle has a complete metamorphisis. The crickets Jump/hop and the beetles walk/crawl. Also the beetles are black as an adult and the crickets are tan/light brown and greenish, the crickets chirp and the beetles don't chirp. the crickets have long enntenea the beetles have short enntenea. They both molt which is where there skin sheds.

Students created a box an T chart to compare and contrast the beetles and crickets. This written product is a result of their graphic organizer.

Lady bugs are interesting insects. A Lady bug has a head, thorax, abdomen, two antenna and six legs. Lady bugs can be different colors like yellow, orange, red and some have spots. Lady bugs' wings look very hard and they have mouth parts to suck and chew. Lady bugs have two sets of wings, one is hard and the other is soft.

A Lady bug has a complete metamorphosis. The four stages are first egg, then larva, next pupa, and finally adult. Lady bugs stay 7 to 10 days in their pupa. A Lady bug can live in wood land, meadows, gardens and even crawl in homes and live there. Most animals do not like to eat Lady Bugs because they have a bad taste. A Lady bug can lay up to 300 eggs and these eggs are yellow. Lady bugs look like a beetle when they come out of their egg. A Lady Bug takes up to 3 to 5 days to hatch. The larva stage is a stage that the Lady Bug goes through when it comes out of the egg. A Lady bug makes a huge family.

A Lady bug is an interesting creature. It's very weird that the Lady Bug has an exoskeleton and it's weird that the Lady Bug uses his antenna to feel. It is interesting that Lady Bugs eat up to 50 insects a day.

Students researched a particular insect. They used a graphic organizer to shape their research. They collected and synthesized information about their insect and wrote a report.

Victoria S.
Grade 2

Samantha did a great job with her writing piece. Her voice is clear in the first paragraph. She included details from some of the readings about honey bees. After conferencing with her, she was able to add more transition words. To end the unit, students were asked to compare and contrast an insect to the human. The following two pieces show the transition from the T chart to the final product.

Samantha D.
Grade 2

How am I and the Honey Bees alike and different?

Same

* like honey ✓
* we need air, food, water, and space ✓
* like flowers ✓
* have eye ✓
* have mothes
* both have skin

Diferint

* flys ✓
* anteries ✓
* ectoskeleton ✓
* make honey ✓
* honey bees have 6 legs ✓
* hair coffering body ✓
* have stinger ✓
* live in hive

Diferint

* do not fly ✓
* ears ✓
* do not ectoskeleton ✓
* do not make honey ✓
* I have 2 legs ✓
* do not have hair covering body ✓
* no stinger ✓
* live in house

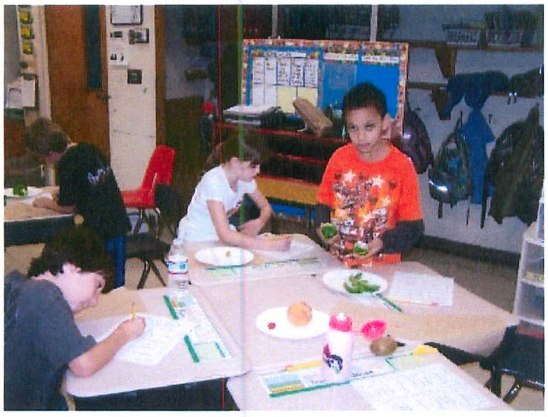
→The honey bee and I are the same because we both like honey. We both have eyes and hands. We both need air, food, water, and space. We both really really like pritty flowers. We both have mouths but it is really more like the honey bee has a togha. We both have skin.

→The honey bee and I are diffrent because the honey bee flys and I do not because I do not have wings like the honey bee does. The hony bee has antenes but I have ears. Also, The honey bee colects neetar I do not colect nectar. I add it in The honey bee makes honey I do not make honey but I do like to eat it. Furthermore, Honey bees have six legs and I only have two legs. Honey bees have hair cofering there bodys I do not have hair cofering my body. The honey bee haves a stinger I do not have a stiner. Honey bees live in hives and I live in a house.

Third Grade Science
Structures of Life

The Structures of Life kit consists of observable characteristics of organisms. Students observe, compare, categorize, and care for plants, crayfish, and Bess beetles. In doing so, they learn to identify properties of plants and animals and to sort and group organisms on the basis of observable properties. Students investigate structures of organisms and learn how some of the structures function in growth and survival.

Mrs. Allen
Mrs. Bliven
Mrs. Vocatura



After using different text structures to organize information effectively, Haley was able to accurately sequence the life cycle of a bean. Haley was able to accurately use scientific vocabulary to explain the stages.

Haley S.
Grade 3

The cycle of the bean transforming into a plant. The bean begins as a bean. It startes as a bean because you just planted in the ground. The second stage is that the bean has just began to sprout. It started to sprout because bean soaked in nutrients. The third stage is when the bean soaked enough nutrients it starts to grow roots, a stem, and some leaves. The bean is not fully a plant yet. The fourth Stage is that the bean has grown more leaves. The next stage is stage five, stage five is when the bean has grown nice red flowers. Stage six is that the bean has now grown bean pods. The bean is not fully grown yet. The next stage is stage seven. Stag seven is when the bean pod has nice green seeds. Now the bean is fully a plant! But there is one more stage, stage eight it is the whole lifecycle starts all over again.

Haley used a bubble map graphic organizer prior to writing her written product. She was able to use information to write a paragraph about the life cycle of a bean. It includes a well written explanation of each stage.

Haley S.
Grade 3

The crayfish and the bess beetle are similar because they both have leg joints. In addition they both have an amdomen and a head. There two eyes are located on their heads. So are their antennae which, they use to sense things, and their mouth, which they use to eat. They also can walk and move backwards. They both have an exoskeleton, which is located on their back.

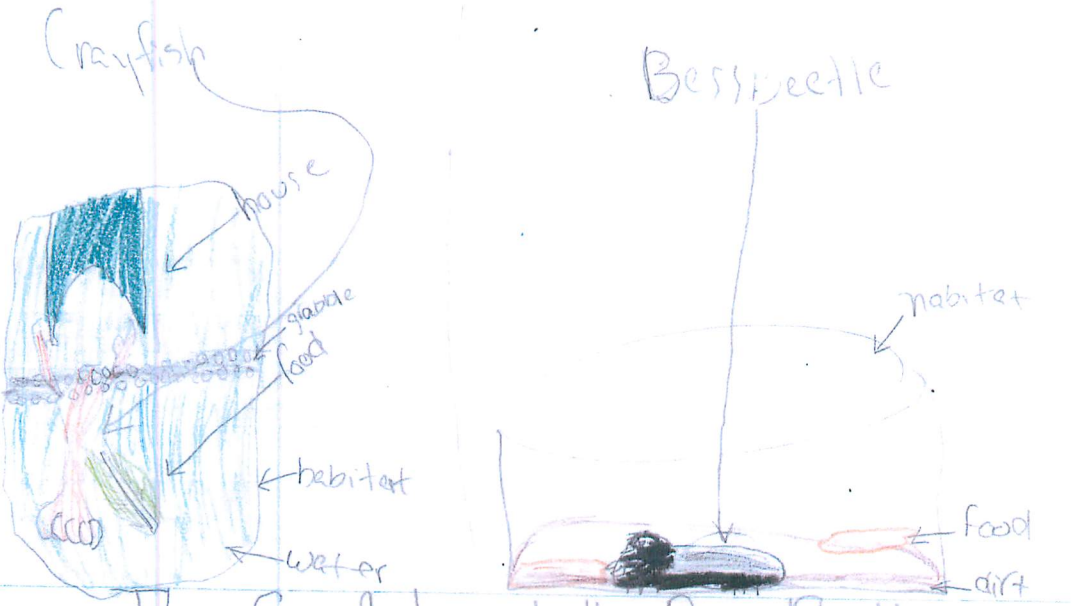
They are different because the crayfish has eight legs, but the bess beetle only has six. Also, the bess beetle lives on land whereas, the crayfish lives in water. The crayfish eat catfood whereas, the bess beetle eats wood. Also, the bess beetle has a horn to defend it's self whereas, the crayfish has pincers.

by. chloe shitale

Chloe S.
Grade 3

After making accurate and full observations with complete records, Isabella and Chloe used a box and T-chart to compare and contrast the crayfish and Bess beetle. They supported their explanations with appropriate data. Notice the detailed and labeled scientific illustration included.

Isabella C.
Grade 3

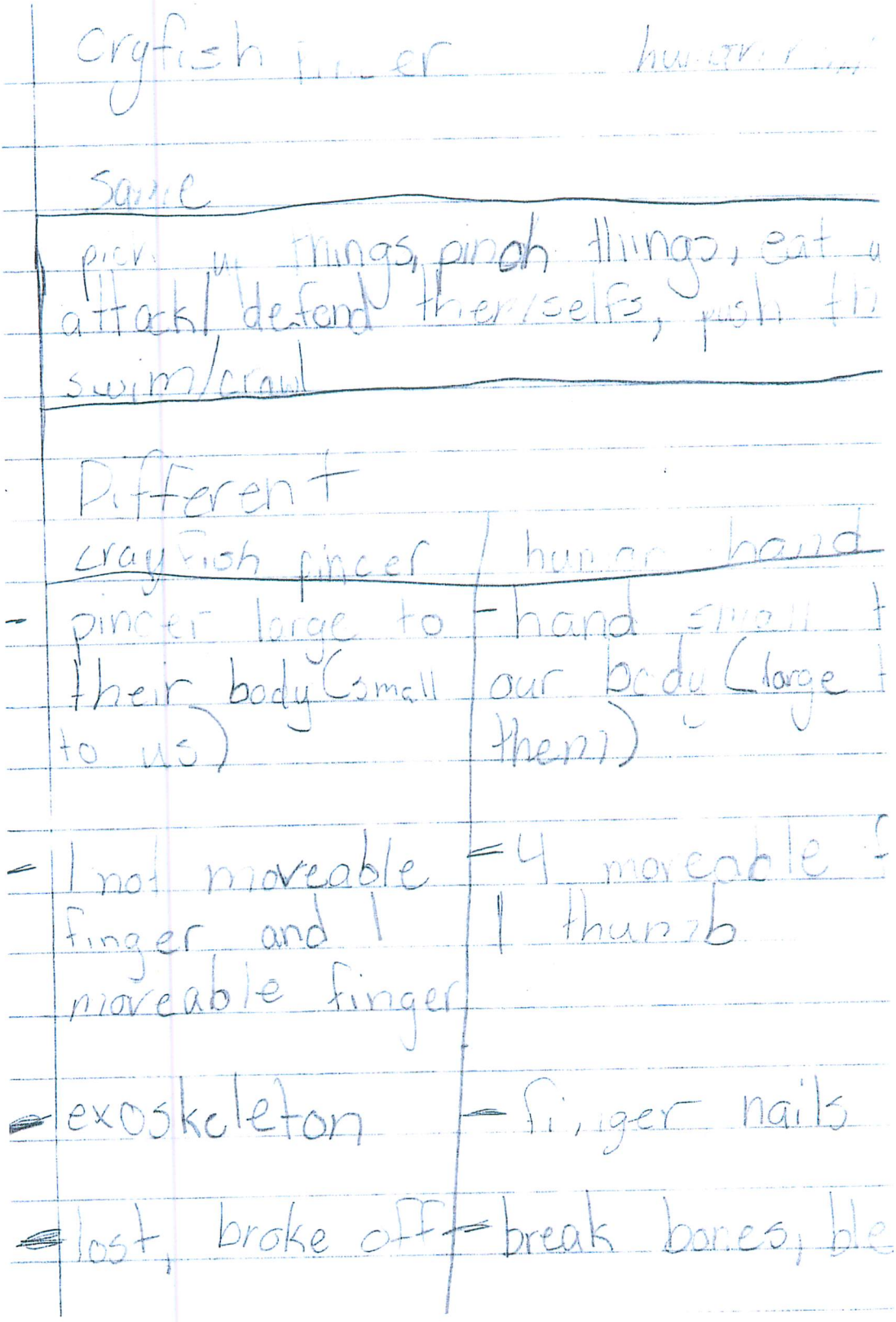


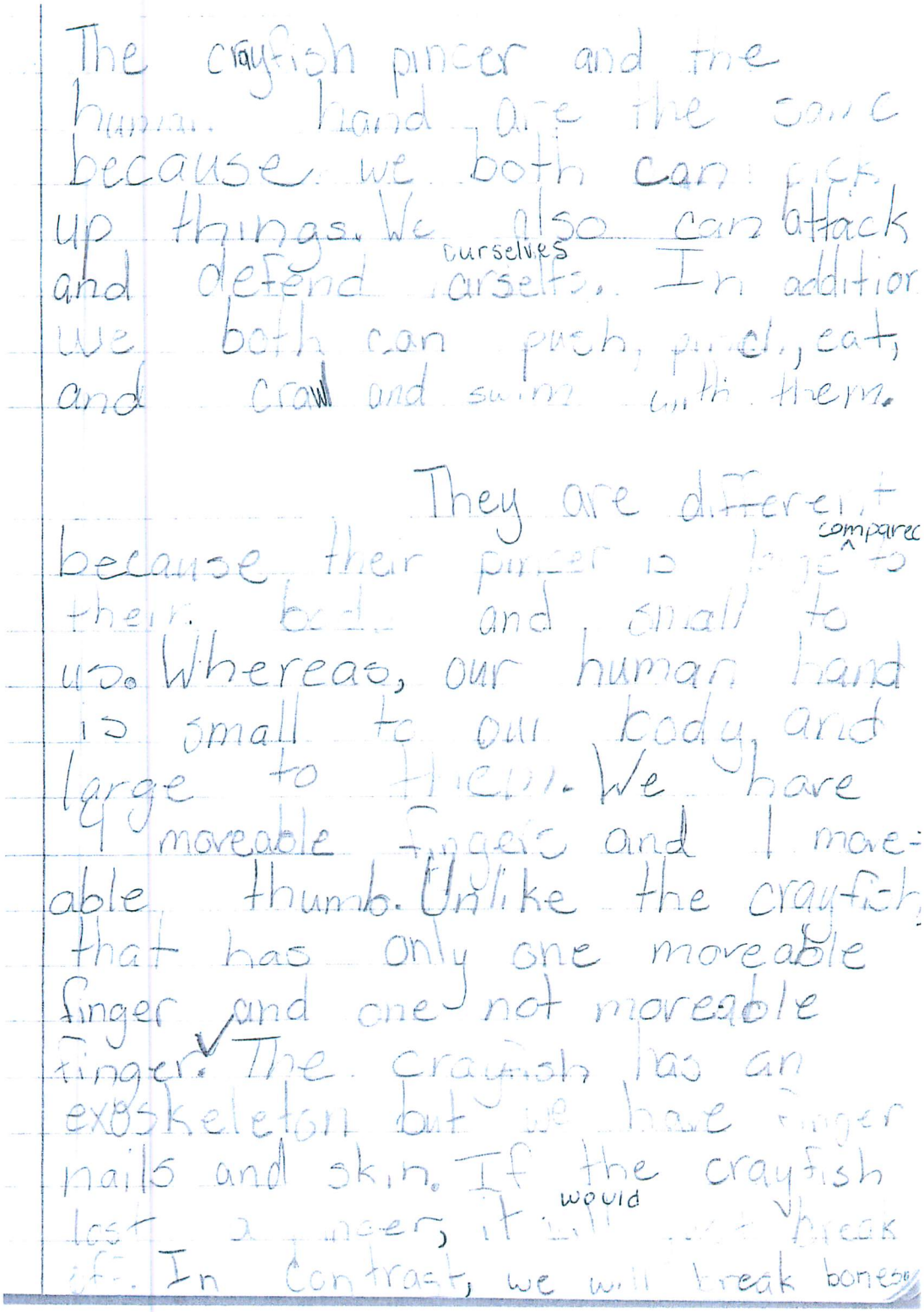
The Crayfish and the Bess Beetle are similer because they both have 1 abdomen, 2 eyes, 2 antenane, leg joints, an exoskelton, they can walk, and backwards. They have leg joints on each leg! They also, have an antennae on their head to feet in front of them. 2 eyes to see side to side or left to right. In adelition, they are very alike.

They are different because the Crayfish has 8 legs. Whereas the Bess Beetle has 6 legs. Also the Crayfish has a carapace the Bess beetle has 3 main body parts head, thorax, and an abdomen. The Crayfish live in water the Bess Beetle lives on land. The Bess Beetle eats any kind of wood. The Crayfish eats cat food.

Tia used a box and T chart to compare and contrast the human hand to the crayfish pincer. After, she used her information to create a compare and contrast written product.

Tia S.
Grade 3



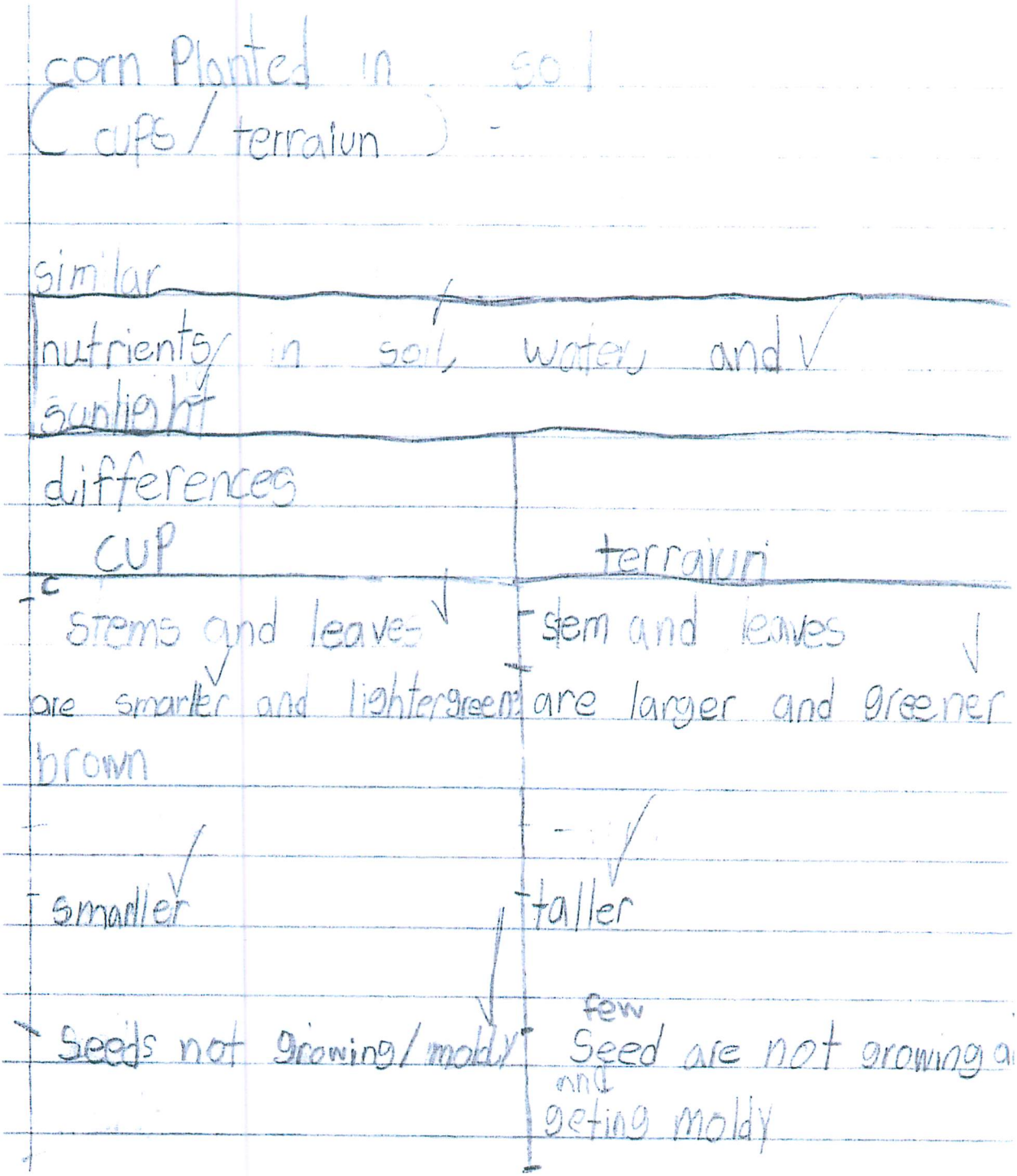

The crayfish pincer and the human hand are the same because we both can pick up things. We also can attack and defend ourselves. In addition we both can push, pull, eat, and crawl and swim with them.

They are different because their pincer is large compared to their body and small to us. Whereas, our human hand is small to our body and large to them. We have moveable fingers and moveable thumb. Unlike the crayfish that has only one moveable finger and one not moveable finger. The crayfish has an exoskeleton but we have finger nails and skin. If the crayfish lost a finger, it would not break off. In contrast, we will break bones.

Tia S.
Grade 3

Leisly used a Box and T Chart prior to writing her final piece. She compared and contrasted the development of the plant. Lastly, she predicted what caused the difference in growth based on their accurate observations and investigations.

Leisly D.
Grade 3



The corn seeds that were Planted in cup and the terrarium both had soil with nutrients. In addition they were both given water and sunlight to germanat.

they are diffrent because the seeds in the cup got smaller and the seeds in the terrarium got very taller. Also the seeds in the cup are smaller and lightgreen and borwn. whereas the seeds in the terrarium the stems and leaves are larger and greener. the seeds in the cup are not growing and getting moldy unlike, the seeds in the terrarium which are not growing and how a few seeds that are getting molady.

I predict the seed in the cup dided because they didn't have a cover the cup. The water evaporate. so the seed in the terrarium had constant water.

Leisly D.
Grade 3

Students were given a research project that to see if they could apply their newly learned knowledge to a new experience. The students had access to library books and other resources as they researched about their animal. They had to find out the animals location and describes its habitat. They had to be able to explain their role in the food chain. Each student also had a unique special question. Tia's special question about tigers was, what would happen to the cub if the mother dies. Noelle's was, what would happen if the lemur lost or severely injured its tail.

Tigers

The tiger lives in Asia. It's homes are in China, India, Siberia, Sumatra, and Indochina. They live in Asian swamps and the India jungle. Tigers need rocky and sandy rivers and streams to get fresh water from. The tiger also lives in forests with trees, hills, and mountains. There are no tigers that live in Africa, but Native African people brought them there. Tigers live in many habitats like the ones mentioned above.

The tigers are important in the food web. They hunt lots of things like deer, wild hogs, cattle, and frogs. They also feed on buffalo, pigs, monkeys, guar, (a wild cow) and young elephants. The tiger eats fish, ground birds, and antelopes. All of these things are prey to the tiger. Their predators are humans. Humans hunt tigers for their fur, skin, bones, and meat.

Tigers have special adaptations. Tigers have sharp claws to help hunt and strong teeth to help stab and kill prey. Like all animals they have eyes to see, nose to smell, and a mouth to eat things. Also the tiger little hooks on it's tongue to help pluck the feathers off the birds it eats. They also have wiskers to feel things like a house cats.

If the mother tiger dies and the cubs are still young, I believe one out of two die or both die. The need food and water to survive. The mother tiger nurses the cubs, and she also gets them food and water. The mother tiger cares for them, keeps them safe, and keeps them warm for six years. Then they go off on their own.

Tia S.
Grade 3

Tia's Model of
the tiger.

Lemurs

The lemur lives in Madagascar which is off the south-east coast of Africa. Its home is on a tropical island. It has low trees, scrub, and rocky areas. Frogs and squirrels live in trees like the lemurs.

Lemurs are important in the food web. Some predators of the lemur are the fosse, wild cats, and dogs. They try to stay away from them by looking out for danger. The lemur collects leaves, flowers, buds, fruit, and insects to eat. It drinks water. They really like tree gum, which is a thick sap.

The lemur has special adaptations to survive in the rain forest. It has forward-facing eyes to focus on location. They have a special sound to communicate. Their long hind legs make them leap far. Their movable fingers help grip the tree. They have to grip the tree to hold on. The thick palms of their hands and soles of feet are tough, thick, rough; with leathery skin help absorb the shock when they land. Its tail trails for balance.

If the lemur lost its tail, I infer they won't be able to leap as far. I think they would lose there balance. They would fall more, and be easier prey. The tail is an important adaptation of the lemur.

Noelle S.
Grade 3

Noelle's Model of the tiger.

During Noelle's presentation she made reference to second grade science content. She was quoted saying "the lemur has its arms and legs out stretched to be able to leap further by coasting in the air. I think this is air resistance from last years science."

Fourth Grade 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. Ornburn
Mrs. Young

1/8/10 -1

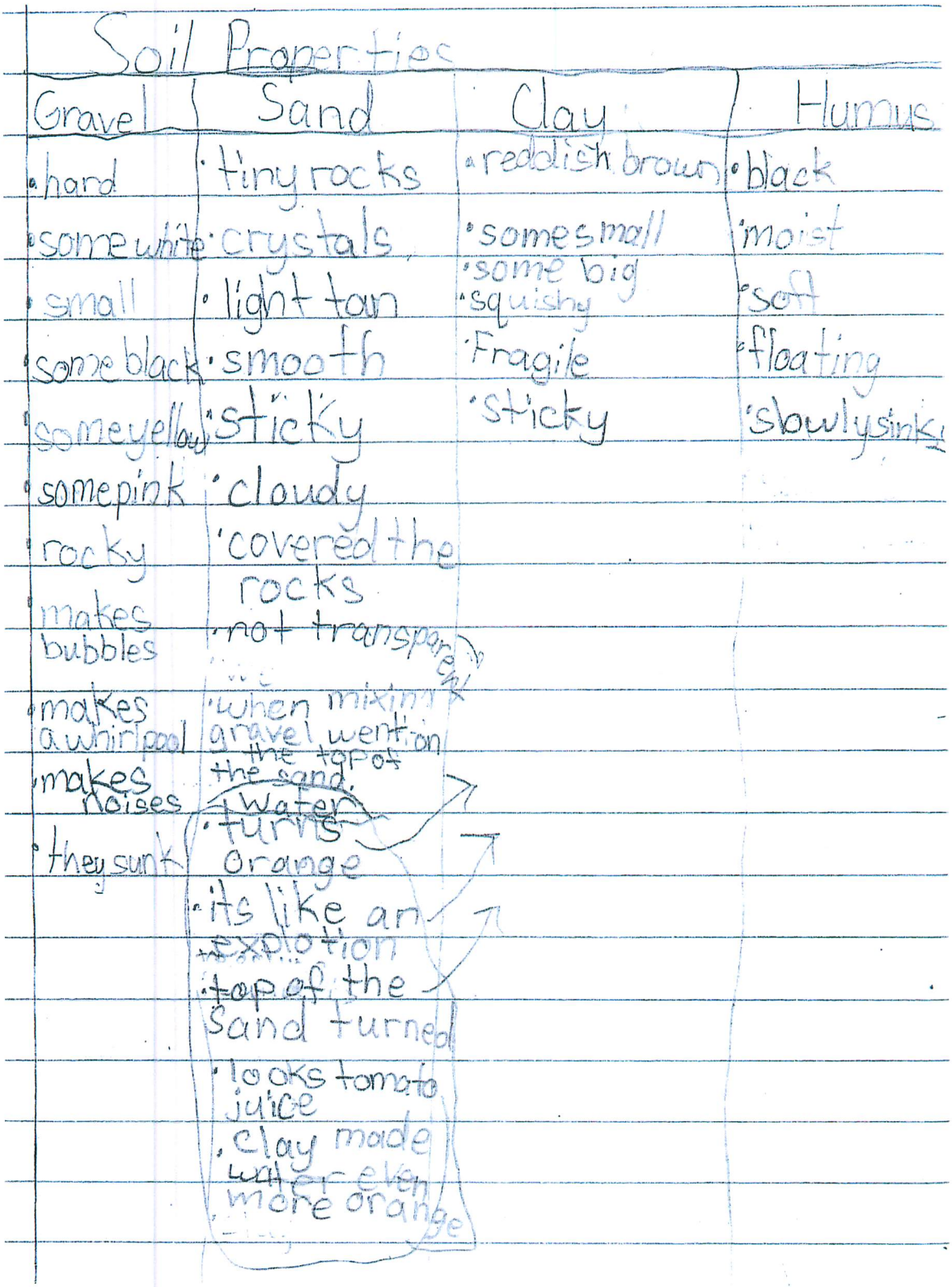
1:30

Wet + Cloudy

I observed a stream table with landforms such as a hill and two rocks. I noticed that when the water went to the right it couldn't get through the hole, then the water went to the left, the water slowly went through the hole, after a little bit the left stream stopd, the water went back to the right stream and really went fast through the hole. There was a small delta (the water went slow) at the left side of the stream table and a big delta (the water went fast) at the right side of the stream table. The direction of the water charged because at fist it tryed to go through the right hole, then it went to the left hole. It reminds me of the time I went to stepingstone in Exeter because there was a river than it turned into a dam then the water went a different way and got throgh. When the water built up enogh it was able to get through the right hole. At first the water was going slow at the left hole. But now the water is going fast at the right hole. It surprised me that the rocks and hill made a dam because we only wanted to change the direction and flow of the water. I wonder if we could have used this setup in the last experiment with dams?

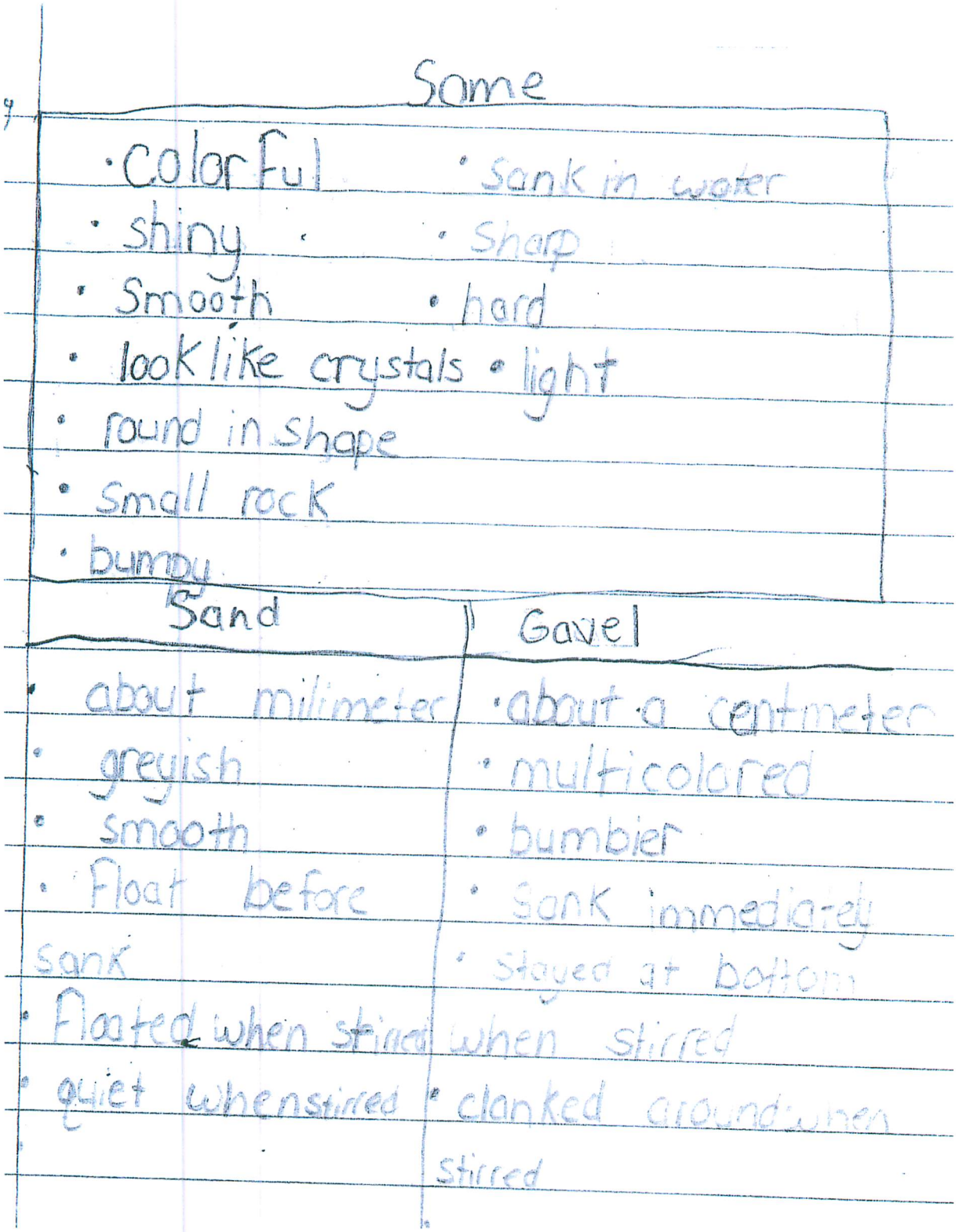
In this investigation, students were asked if landforms would change the direction and flow of the water, based on what they already learned about the force of water from previous investigations. Students were able to add landforms to their stream tables. They were given two rocks and were allowed to create a hill. They could choose where each of these landforms would be placed. Andrew's writing demonstrates an understanding of the "big idea" He was able to apply previously learned skills to this investigation and extend his ideas to other areas.

Andrew M.
Grade 4



Students were given soil component samples to observe and investigate interactions with water. Maura's data chart was chosen because she made accurate and full observations with complete records. She used four out of her five senses to gather her information about sand, gravel, humus, and clay. Her data chart is neatly done an organized.

Maura B.
Grade 4



After students observed and investigated soil components, they were asked to use the data they collected to compare and contrast two of the four materials. Andallyn chose to create a box and T chart to compare and contrast sand and gravel. She shows accurate comparisons between the two components. Her chart is neat and organized with a good deal of information, which will create ease in her writing.

Andallyn T.
Grade 4

10-4-10
1:05
cold + windy

Which soil component has the least pore space and which component has the most?

Predict: I think the soil component with the least amount of pore space is the clay because it is sticky. The component with the most pore space is gravel because gravel is big.

I noticed	I wonder
• big hole in sand • gravel stay put • Humus makes bubbles • Small gap at bottom of clay	• I wonder what would happen if I put more clay in. • I wonder what would happen if I put pebbles in the gravel. • I wonder what would happen if I • I wonder what would happen if I put more humus in after the water.

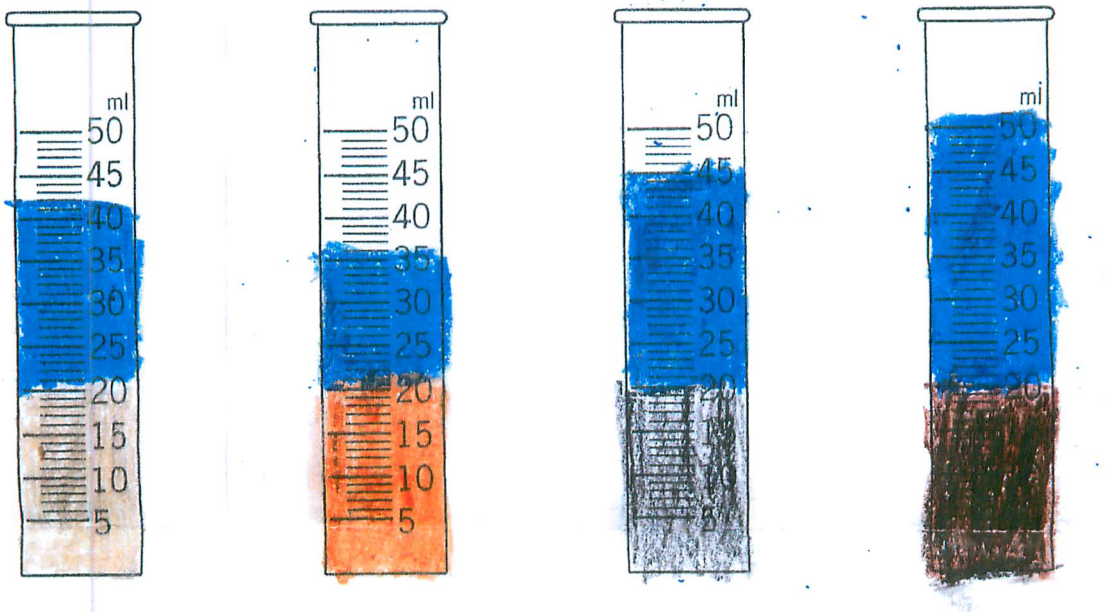
In this investigation, students were asked to predict which soil component (gravel, sand, clay, or humus) had the most amount of pore space and the least amount of pore space based on observations from previous lessons. Malese stated her prediction clearly using appropriate scientific vocabulary. She also collected and recorded observations and questions during the investigation.

Malese F.
Grade 4

Prediction

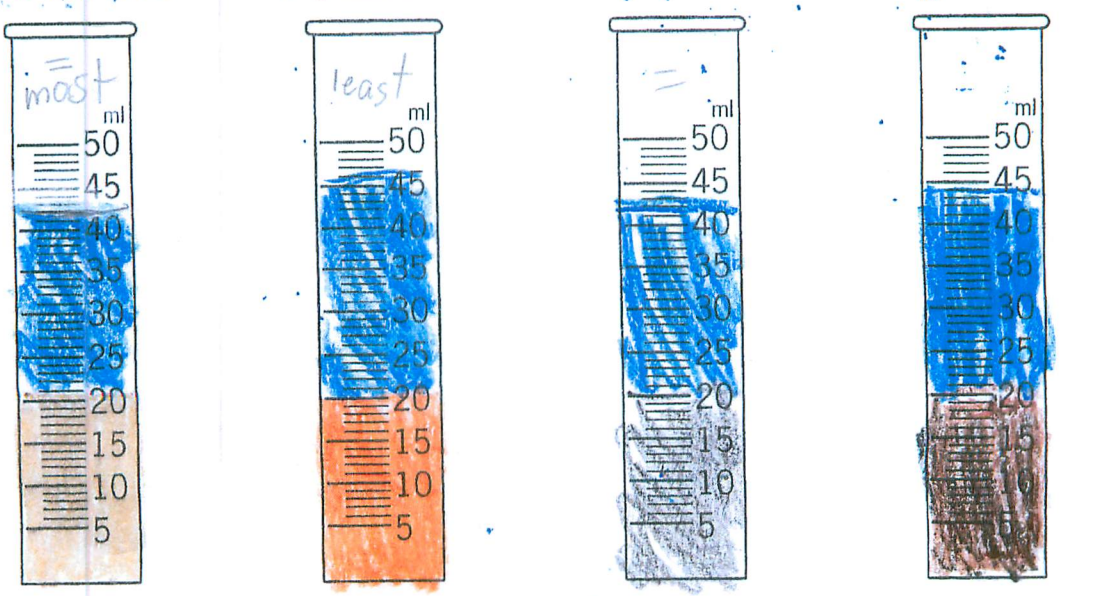
Testing Pore Space in Earth Materials

Sand and Water | **Clay and Water** | **Gravel and Water** | **Humus and Water**



Actual

Sand and Water | **Clay and Water** | **Gravel and Water** | **Humus and Water**



Students recorded predictions and outcomes on the diagrams of the graduated cylinders. Tiffany collected and recorded her data accurately and completely. She was also able to correctly identify the soil components with the least amount of pore space and the most amount of pore space based on the data she collected.

Tiffany B.
Grade 4

10-6b

The soil component with the least amou 12:55
of pore space was the clay. The soil rainy
components with the most amount of
pore space was the Sand and the Gravel.
For example the graduated cylinder
for the least pore space was the clay
that was 48 ml of water. The gravel and
Sand had 41 ml of water. I noticed
the humus went to the 21 mark when
I put the water in and some humus went to
the top of the graduated cylinder with the
water. Also, I noticed when I pored the water
in the clay it went to the 20 ml mark.
Therefore, the larger the particles, the bigger
pore space. I think this happens because
the won't be able to squeeze together. My
pridiction did and did not support my data because
I thought the soil component with the
least would be humus but it was clay
and I was right because I thought the Gravel
would be the most and now I know the
Sand is the most too. I wonder why the
clay has the least pore Space.

As the final piece to the investigation, students were asked to write a data analysis about the information they collected. Mindy was able to make accurate and full observations. She examined the data carefully and provided evidence to support her thinking. She used scientific vocabulary accurately throughout the piece and used appropriate transition words to organize her writing.

Mindy L.
Grade 4

The soil component with the least pore space is the clay, the soil component with the most amount of pore space is gravel. I noticed that the clay stayed up in high ml while the gravel was down in low ml I know this because the gravel water height was 40 ml yet the clay was 50 ml. Therefore, the gravel had more pore-pace than the clay because the gravel did not stick tog-ether and the clay did. My data kinda supported my prediction because I thought the gravel would have the most amount of pore space whereas the clay I thought would be only 5 ml more than the gravel I thought that the humas would have the least amount of pore space. I think this happened because the gravel was bigger and not sticky and had more pore space than anything and the clay was apparently was very sticky. I wonder why the clay cleared this time? And the clay cleared instanly?

Paige was also able to support her explanations with appropriate data. She referred back to her prediction and was able to make reasonable inferences about the various soil components based on the data she collected in the investigation.

Paige S.
Grade 4

How does the speed of the water affect the amount of soil that is worn away (eroded) and the amount of soil that is dropped off (deposited)?

The speed of the water affects the amount of soil that is eroded or deposited because I think that a fast river going by it erodes up more soil and gusn it away and then alought of soil will be deposited. I think that a slow river won't erode much soil, so I don't think it will deposit much soil.

In this investigation, the focus question was "How does the speed of water affect the amount of soil that is worn away (eroded) and the amount of soil that is dropped off (deposited)?" Students are asked to make a prediction by restating the question and giving a reason (because) for their thinking. Avery's prediction and data chart was chosen because he used prior knowledge to explain his thinking in his prediction. He also collected and recorded his data accurately and completely.

Avery M.
Grade 4

(8)	I noticed	I wonder
I noticed that the water went two ways.		I wonder why it did that.
I noticed where the water landed it made a crater		I wonder why the dug into the earth got ~~farther~~ away.
I noticed that when the water gets off of the ~~dropoff~~ it kinda made an island of gravel on the mouth.		I wonder how they did that?
I noticed that in the body the dropoff made a v.		I wonder if we can get the gravel to with more water.
I noticed in the head there's all gravel and sand.		I wonder if we a greater slope of water so we can the gravel

How will vegetation affect the amount of erosin that occurs?

Prediction: I Predict that it will slow the water because it is like a dam to block and slow it down so there will be less erosin.

I notice	I wonder
• it was soaking into the land and then throug it.	• I wonder if the water went though or under the land.
• the run off was pritty clear	• I wonder wher the ersion is in the body or the head.
• no canyons in the vegetation	• I wonder if you put more vegetation in the strem table.
• thar is no gully	

In this investigation, grass was planted in the stream table to determine how vegetation would affect the amount of erosion that occurs. Students were expected to use the knowledge they gained throughout the previous investigations about force to make an appropriate prediction. Tommy was able to determine that the force of water would be slower, and therefore, less erosion would occur. He appropriately applied previous learning to new concepts.

Tommy H.
Grade 4

I observed a stream table with plant life. I noticed that the runoff was clear. Also there was no gully at the head of the stream. Next I saw that there was no delta. Last of the flow of the water was very slow. My data suported my prediction because I thought there would be less erosion. When the water was being poured it took a while to dropoff but now I know that the plant life slowed down the water. I wonder what if there was a flower in the stream table?

After investigating how vegetation affects erosion, students were asked to write about their observations. Zachary stated his information clearly and developed his ideas fully. He supported his ideas with relevant details, and used transitions words to organize his writing.

Zachary O.
Grade 4

I Observed a Stream table with vegetations in it. I noticed the vegetation made the force slow down. In addition there was No delta. Lastly there were NO tributaries. I reminds me of when we had a flod because we have tall grass and the grass made the water have less force. At first I thought there will be a deep gully but Now I know it will be a little gully I wonder what would happen if there was leaves instead of grass? I also wonder what would happen if we added landforms?

My data Supports my prediction because I predicted the water will have less force.

Asia also expressed her ideas clearly and accurately making connections to her own experiences. She used scientific vocabulary appropriately and transition words to organize her thinking.

Asia W.
Grade 4

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