

taken up the explorations by which the west was discovered, in order to understand the conflict of claims that came later. It took some time to get from the children the idea that a claim to a country or part of a country on the ground of discovery did not hold unless followed by actual possession by colonists. Having located the Spanish claims, we spoke briefly of the voyages of the Cabots and the English claim, and then took up the French explorations. They read the description of Cartier's discovery of the Gulf of the St. Lawrence, and the establishment of French trading posts. Miss Runyon.


Sewing: Began covers for sofa pillows, which are made of 18 in. square of crash. The edges are overcast, then a design previously drawn is transferred to the crash and worked in embroidery silk of any desired color, or combination of colors. A hok of the same material or denim is fitted and after basting is sewed around three sides of the cover. A cushion is fitted and placed in the cover which is then sewed on the fourth side by turning the edges and overhanding them closely.

Miss Tough.

French:

## History(U.S.)

We have finished the history of Chicago and begun on the history of Virginia. To prepare for this we began in England and talked of the crowded condition there. We accounted for this by the fact that the wool industry had become very prominent and that the pasturing of sheep had begun, and that of course did away with many workers and left a large number of people out of employment. This became so serious that statesmen began to look about to see what could be done. They turned to America as a place that might be colonized and make homes for the people. To understand the claims of the English people to dominion, we had to take up a little of the explorations and discoveries. The children read an account of Columbus, De Soto, Ponce de Leon, and a short description of the Cabots's explorations and Champlain.

Different children were given different subjects to report upon. The books used have been Thwaites Colonies, 1492 to 1750, and Higginson's United States History, and other histories at home have been consulted. The class has bought "The History of Virginia" by Captain John Smith, which will be used as a text book. Wherever we can we are going to use the original documents.  Miss Bacon.

Latin: Have studied the story of Pyrrhus as a basis for grammar work in verbs and nouns. In verbs bringing together previously acquired knowledge, the children made out a list of the personal endings and compared them with the French and English irregular verbs. Miss Schibsky

Number work:

Have reached the point in their room where it was necessary

to calculate the amount of carbon dioxide allowable in the room. The physiology stated the amount to be two parts in 10,000, and although they had worked out what per cent. meant in dollars and cents, where the hundreds were the familiar unit, when they came to reducing these two parts in 10,000 to per hundredths, it required an hour with different sorts of examples, referring back always to per cent. in the case of money for them to get the idea what two hundredths per cent. meant. They then found the amount of carbon dioxide permitted in the room C by getting that per cent. of the cubical contents of the room, and are now working upon the length of time in which that amount of carbon dioxide would be ~~xxxx~~ given out first by a man, then by two, three or four adults. Miss Camp.

O.K.

*Group VII*  
Science: The effect of cooking upon the composition and digestion of food was discussed, particularly the effect of heat upon starch grains and starchy foods. This was about all that was covered in two periods. Stomach digestion will be taken up next.

Mr. Rogers.

French: The subject for the week was farming. This followed very naturally upon the study of gardening, and consisted mainly of a broader application of what had been learned the week before.

The vocabulary was presented by context, illustration and description. Attention was called to root relationships between French and English and Latin words. Sentences expressing the acts and duties of a farmer were given in the first person. Especial attention was paid to the cultivation of ear memory. Translation from English into French as well as from French

French into English was required.

The imperfect and future tenses of the first conjugation were studied, bringing out <sup>the</sup> one general correspondence between the imperfect endings of all the verbs they had had. Given the infinitive and the future tense of the verb parler, they were called upon to make their own rule for the formation of the future from what they had already learned of the verb avoir.

At the Thursday afternoon exercises two of the children acted a dialogue based on the fable of Le Fontaine "La Cigale et la Fourmi". A brief review of words and sentences completed the week's work. O.K.

Sewing: Same as last week.

Cooking. All groups above VI take the same work.



History: Same as VIII).

Number work: While we were studying taxes, the assessor left the tax blank for the school, so the class listed the articles of furniture. They then took  $1/3$  of this as the assessed value, as stated in the blank, and as soon as we can find what <sup>the</sup> per cent. of taxation is we are going to figure out the amount.

I wanted them to have a little drill in taxes, so I took an arithmetic and gave them some problems which brought out the same ideas. They were given the taxes, rate per cent and per cent. for assessed valuation to find out what the different persons were worth.

Miss Mason.

Science: Have continued working at the law of the lever,

Power arm : weight arm : : power : weight., taking up the geometrical relation of the proportion between the arcs of proportional radii, constructing arcs with radii of different proportions, and measuring the arc spaces by the chord to get the general statement of that relation. O.K. Miss Camp.

Latin: Have gone on with Caesar reading. Besides that have done the story of Pharrus for the study of verbs. In connection with the Caesar work have indicated some of the more obvious constructions.

Miss Schibsky.

Sewing: This group has taken up for the first time the making of garments from patterns of their own draughting. The girls are making skirts and the boys denim aprons (the latter for use in the printing shop). Measurements are taken and the patterns drawn accordingly. The process involves the use of straight, horizontal, vertical, parallel, and curved lines, and the construction of right angles. After the use of each the class is asked to formulate a definition which will cover all cases.

### Ear training.

The teacher plays a few phrases in one key upon the piano to get the feeling of do or the home tone into the children's minds. Then getting as near them as convenient, so no shade of false tone will escape her, she gives them individually, for imitation, single tones, two tones making a simple interval, or a short phrase of greater or less difficulty according to the ability of the pupil. As far as possible, accuracy in imitation is insisted upon. An aid in getting a required interval into the mind of a pupil is to let the fingers of the left hand represent do - re - mi - fa - sol, and to point to the interval which the pupil is giving incorrectly and then show the interval required. When the phrase given cannot be represented by the fingers, the phrase, as incorrectly imitated is given, and then the syllables of the phrase as required.

This exercise leads to correct pitch and intonation, and also to quick learning of songs given aurally by the teacher.

### Syllable Work.

The children sing the major scale by syllable in unison; then individually, each taking one incident of the scale. By those seven incidents of the scale we are able to express emotions of joy or sadness. Teacher plays do - mi, sol and then re - fa - la, and the children decide which set would represent a joyful emotion, and which a sad. They are then given the syllable names <sup>for the two sets, and tell</sup> individually which set the teacher is playing. By drill they are finally able to recognize the quality of emotion represented by either of these sets, given in any position. The object of this exercise is to enable the pupil to recognize and name scale incidents by their emotional

quality.

Ti is to be simply a connecting link between re fa la and the next higher joyful set. Instead of the terms "joyful" and "sad" intervals, "positive" and "questioning" intervals may be used. The bugle call Reveille is a useful example of the joyful incidents in various positions. After the pupils have learned to recognize the different sets when given aurally, they name the incidents of each in the order played.

For the purpose of accustoming the child to connect the name of scale incidents with their sound, an antiphonal exercise with the teacher is useful. The teacher gives a phrase with syllables, accompanied on the piano, the pupils in unison and in perfect rhythm repeat the phrase, the teacher then giving a second which the pupils repeat, and so keeping on until the exercise which may be made very harmonious, is completed. This exercise is given in two pulse, three pulse, four pulse, or six pulse rhythm, and is simple or intricate according to the ability of the pupil.

Mrs. Kern.

This week we took up the mother's work, and it was introduced to the children through the house-cleaning. We began by taking the necessity for getting out and cleaning the clothes that had been packed away for the winter, cleaning closets bedding, etc. For this purpose we made a tub and wash board. The children suggested the need of an ironing board. We had toy iron s, but found that they had to be heated to smooth the cloths<sup>e</sup>, and to hold the hot iron we needed holders. These were made out of felt and woven, as the older children had done. The wood work for the wash-board was prepared for them, and they put it together. The ironing boards were given them, and they pinned about them the blanket.

We are still on the story of Balder.

We soaked cracked wheat. We weighed it and compared it with flaked hominy, and found that it would take six times as much water.

Miss La Victoire.

*Q. K.*

**History and Science:**

Weeded in the garden one hour. One hour was spent in collecting zoological specimens. We got snails, fish and frogs and algae. On the excursion we talked about the food of all these creatures, and what they could get for food in the ponds. With Miss Lackerstein they talked over Indian legends that she read to them, - a part of Hiawatha. They talked about why the Indians believed in these legends.

They continued work on their insect boxes. Miss Andrews.

Sewing: Continued work on needle books. Miss Tough.

Art work: Attempted to draw a steam roller in motion near the school house. They have also drawn trees and buildings in the neighborhood, to get ideas of shape and mass.

Miss Cushman.

## History and Science:

Have been dyeing wool. After finishing their tents they took them to a neighboring lot and set them up, eating their luncheon there, and playing they were trying to find suitable pasturages and wells for their flocks.

They tried experiments with extracting the dye from the log wood chips with cold and with hot water, trying the color of cloth. They spent some time in taking<sup>1</sup> about the way in which the ashes would be found to be useful as cleansers, and were told the same story as Group III.

O.K.

Miss Camp and Miss Hill.

Sewing: Finished cleaning wool. The children said they would spread the fibres like a cob web, then the dirt would drop out. In practical sewing they did the same work as Group I.

Botany: They worked in the garden and discussed the nature of weeds: what kind of plants were called weeds, and why, and what would happen if they were not taken out; and why these plants were harmful-- on account of their growing in so much poorer soil and under worse conditions than plants, they could grow faster. Therefore we found, that although there were many more seeds planted, they could not choke out the weeds. Miss Andrews.

Cooking: They tried to find the proportion of water to cereal in Wheatena. They had been unable to work this out when it was given to them some weeks ago. This time it was more successful. They first found three cups of flaked wheat were equal in weight to one cup of wheatena. Each cup was taken separately, and the children were asked how much water it took:  
1 cup flaked wheat requires 2 cups of water,  
This was written out three times on the board, then they were



asked how many in all three cups of flaked wheat require? Then asked how many cups of water one cup of wheatena would take, which had just as much cereal. Mrs. Baxter.

Art work: They drew trees after the foliage had come out, and talked about the <sup>shape of the</sup> "mass" of the willows. Miss Cushman. *O.K.*

Science: *The children looked at their pea seedlings and found that the water tendency was greater than the salt tendency, as the roots had grown up toward the water*  
Group III. *K. Andrews.*

### History and Science:

Took up the work in dyeing somewhat differently from Group II, because they had done much more work in their sewing on the treatment of the different fibres, including wool. They tried scouring the wool before spinning. They were told how the using of ashes for cleaning skins had perhaps led to the finding out that something in the ashes, when dissolved in water, would take away fat, and so be a cleaning agent, or soap. This was told them as an addition to the story they had already had of the primitive scouring of wool by lye water and wood ashes. They called the alkaline substance in the wood "potash". They burned some wood to get some of the ashes for their potash, and found what a small amount of ashes a large amount of wood makes. The rain soaked the wood out-doors, and prevented its use for potash, so they were given some sodium hydrate.

In scouring the unspun wool with this they saw the dirt separate and float up in the potash, saw the action of the potash on wool and felt it, and realized the need for a thorough rinsing of the wool. They had already told me that scoured wool would not spin because it would not have enough oil left in it.

But I had them try it to see the stiffening effect of the potash



on wool. They found it difficult to twist. They then went on to dye some skeins of yarn which they had wound for Miss Harmer. They suggested the possible things to furnish dye, - berries, woods, leaves, and flowers. O.K. Miss Camp.

Sewing: Finished needle books. In theoretical work they spent their time in reviewing the structure of thread and the use of the bobbin frame. Miss Harmer.

#### Cooking:

Studied the potato. The children are rather small to make individual experiments, so one experiment was demonstrated for the class. The potato was cut across to show the presence of water. A very thin slice was then removed and held to the light to show cells packed with a white substance which they called starch. They were shown a magnified cross section of the potato, in which the cells filled with starch grains were visible.

We wanted to separate the water, starch and woody fibre, and get a good idea of the quantity of each in a potato. The children examined the cross section and suggested that if we crush the large section the starch grains would fall out. Someone said we could squeeze out the water. We grated the potato and put it in a cheese cloth and pressed the water through. It was a very large quantity. They wanted to know just how much it was, so we drew a large outline of the potato on the board and the children were told that  $\frac{3}{4}$  of it was water. Layton was asked to represent it, and he divided the outline into quarters and filled in three parts. We had the other quarter to account for. We washed the starch through to separate it from

from the woody fibre. We let it settle in the water to the bottom of the bowl, and when the water was poured off, they found the starch. They were told it was nearly  $1/4$ , and the remainder was filled in to represent woody fibre.

We spend half an hour on this work, and an hour on the practical work of cooking a potato in boiling salted water.

Miss Harmer.

Number work. Continued to work on proportions, using flaked wheat as a basis., 2 parts of water to 1 of wheat.

We began with simple small numbers and led up to simple large numbers.

1 cup of cereal	requires	2 cups of water.
2 cups	require	4
4 "	"	8
5 "	"	10
6 "	"	12
12 "	"	24

We took up to 45, 55 and 60 cups.

A short game was tried. The teacher gave each child a number and he was to find how much it lacked of being ten. This number was then written by one pupil and the rest of the class guessed the number given to the pupil. The "guessing" was of course subtracting.

Mrs. Baxter.

Art work: They drew a cow that was tethered in the yard. The outdoor work of both II and III has proved that the illustrated work given in the winter, where nature was not directly before them, but where their attention was called to it in different ways, has helped them so that they could begin to draw from nature in a very simple way.

Miss Cushman.

History: One period was spent in sailing about the map and reviewing the work of several weeks for the benefit of a member of the class who had been absent. The children were divided into groups, one to represent the Phoenicians, who were sailing away from Tyre after its destruction by Alex. the Great; another, the Carthaginians, to whom the Tyrians came and told their story; a third, was a party of Romans, who watched the Phoenician ship pass near their shores, and with the feeling that they were becoming a great people, wished that they knew how to build a fleet of such boats. This last was given by recalling the founding of Rome they had had, and to give point to the story that would come later when the Romans and Carthaginians were at war and the Romans only learned to build a fleet from a wrecked Carthaginian boat which drifted to their shores.

Two periods have been spent in reading, especially in trying to separate words into syllables, so as to have a clue to pronouncing them.

We are next to make a brief study of the Chinese, to contrast the people who used and adapted many civilizations as developed by peoples in their neighborhood, with a people separated from all such advantages. We recalled all the things which the Phoenicians had learned or taught other peoples on the Mediterranean, and the fact that but for their service as carriers of other nations, they could not have lived.

With geographers before them, with the map scales the children measured the distance from Phoenicia to China, and tried to decide what routes would be taken, by land and by sea, ~~from~~ by a tribe of people; the time it would take and the means of conveyance. They learned how mountains are represented on a flat map, had the Himalayas pointed out as the

highest mountains.

Miss Runyon.

Botany: Have spent a half hour working in their garden. Miss Andrews

Science: Have left their thermometers to be mounted when the backs are finished in the shop. They have begun to gather together the various things they have learned about the effect of heat upon different substances, the change from a solid to a liquid and to a gaseous state of the things they have worked with: water, - as an example of the three; mercury and alcohol as an example of the last two stages. They then went back to the story they had had in the fall of the way the earth was a very long time ago, - a hot gas, and then a rock ball. At this point I thought I would see how much they could generalize from the things they had known about different states of matter, so as to make some connection between this ball of rock and the gases about it, and the earth in its present state. So we made a list of all the things they knew that would burn with great heat, and of the things they knew that would simply melt and change their shape. By means of making this long list and rubbing out one by one things which could be simplified under a more general heading, as metals, rocks, gases, and living things, - they got down to the question of - If things were in this state in the beginning, what conditions would be necessary for living things they knew to appear? They had a great discussion as to whether gas (meaning air) or water, or earth (meaning the broken up rocks) was the most necessary condition to the appearance of life. They finally settled down to water and air as the two indispensable requirements for living things, granted there was the solid rock earth underneath.

Miss Camp.

sewing: Practical work same as III. In the work on fibres, they took up the spinning on spindles. They drew out the parallel fibres and twisted the drawn wool. They had found that it was possible to interlock many more fibres to make a thread than in they hand work.

Miss Harmer.

Art work:

The wind was too strong to draw out of doors, so we went out and looked at the appearance of the street, then came back and drew it from memory. They had noticed the apparent convergence of the planes, and attempted to draw it.

Miss Cushman.

History: We took up the founding of William and Mary college,- the second in America, and the provision for its support by a tax on tobacco. This enabled us to bring in some number work. We mentioned the change of the capital from Jamestown to Williamsburg. We spent some time in writing on customs at this time,- the women and little girls wore masks to protect their complexion from the sun,- when the first umbrella was introduced from India, and how it compared with the present umbrella, that there were no tooth brushes, etc.

Gov. Spotswood's rule was taken up to bring out the development of the iron industry, the exploration of the Shenandoah valley, and the trouble with pirates; at his orders an expedition being sent to capture Black beard. To show the children some of the ideas of this time, they were ~~told~~ told that Blackbeard's skull was fashioned into a drinking cup, rimmed with gold, and is still preserved in Virginia.

The rest of the time was spent in reading in their new books. Miss Runyon.

Sewing: In fibres they did the same work as III. In practical work they began canvas mats which are cut seven inches square, fringed one inch deep, and the edge overcast. A border design is drawn and worked in cross stitch. Miss Tough.

Cooking: Have reviewed the work done on the potato in the fall.

As they remembered the experiment, it was not repeated.

Miss Harmer.

Science: (Botany)

They spent an hour weeding in the garden.

They tested the experiment which they had set up to see what gas is given off by plants in the sun's light, and found it was oxygen. They had such a small quantity that they



could not tell very much about its qualities, so they made more and made tests with it. In testing the gas that came from the plants we started with the hypothesis that it was either oxygen or carbon dioxide. They knew the test for carbon dioxide, and when it was proved not to be that, we concluded it was oxygen.

We talked a good deal of what goes on in plants, where they get the oxygen from, etc. The children thought they must take in carbon dioxide, or else our air would become too full of carbon dioxide for us to live in it. They had found that plants as well as animals breath out carbon dioxide, and so they recognized this process as going on with the respiration of plants, and decided that the carbon dioxide which they took in was separated and the plants kept the carbon for food products, and sent out the oxygen. We discussed this food manufacture; that nothing but plants could manufacture food from the air, - that organic matter could be made from inorganic only by means of plants, and that this process went on only under the influence of sun light, because when the plants were not in the sun, carbon dioxide alone was given off, as their previous experiment showed them. One of the children said, "Well I always knew the sun was good for us, and did a great deal for us, but I never thought it made our food for us!" Miss Andrews.

Science: Are continuing the same work as last week. Miss Camp

Art work: Did the same work as IV.

Miss Cushman.



Cooking: Have reviewed the composition of milk and made potato soup for their luncheon.

They made a study of the composition of milk. They first observed the milk, and decided that it contained a large quantity of water, and that the cream was lighter and rose to the top. They tasted it, and detected the presence of sugar. They boiled some and found that a scum appeared on the surface. This scum was examined and compared with the albumen of egg. They found that both hardened with heat. They examined some sour milk, and found a large quantity of curd, separated from the liquid. They found it to be acid by tasting. We added vinegar to fresh milk and found it curdled in a similar way. We concluded that this was a substance which hardened, or became solid by an acid. They were given the name "proteid" for these substances, and were told that each proteid had a special name according to its composition. We classified the two we were familiar with: proteids made solid with heat, and proteids made solid with acids. Albumen was given as the name for the first class, and casein for that of the second.

The children were then asked how they would prepare the custard made from milk, - how they would thicken it. They knew albumen hardened with heat, and there was not enough albumen in the milk to make more than a scum. They suggested that if we had enough albumen, blended all through the milk, it would thicken. So we made up our recipe, taking  $\frac{2}{3}$  of a cup of milk and thickening it with egg. All it needed then was sugar to sweeten it, and flavor. The method of mixing and cooking was based on their knowledge of good materials, and given by them. A double boiler was used to regulate the temperature.

Number work: The class made an inventory of all the facts in multiplication that they were thoroughly familiar with. This was done to lead up to those facts which the pupils are to find out for themselves. Each pupil is working out the tables by himself, using what he knows as a basis. One boy is prepared to apply the tables to calculations. Mrs. Baxter.

Sewing: Practical work has been the continuation of work on pin-cushions. Miss Tough.

In fibre work they have continued twisting wool by hand and were led to see that by means of some mechanical device this motion might be made better and more rapid. The teacher had the pupils think of some toy that might be used. This called the top to the minds of the pupils. They were then asked to make a drawing of an implement which could be used to twist or spin the wool. One boy made a drawing of an old-fashioned spool top with a long axis. Mrs. Baxter.

Number work: Have been doing number work in connection with their work with Miss Andrews. They found how much larger the diameter of the sun is than that of the moon's orbit, and then drew circles to show proportional sizes. Miss Hill.

Science: Spent the time on an excursion to Washington Park with Group I. Miss Andrews.

Art work: Drew the buildings on Ellis and 55th street. It was their first attempt at massing buildings in the distance. They noticed the apparent slant of the receding planes of the buildings, but had some difficulty in expressing it. This subject was selected to bring this point to their attention, and this led to an indoor lesson explaining the more technical side,- the reason for the direction of lines and angular perspective. Miss Gushman.

*C.K.*

History (Same as VI).

Miss Bacon.

Cooking: Beside the work done by VII, Group VII have been working on the digestion of albumen in their physiology, and were able to tell the action of gastric juice. They made an experiment with rennet. We discussed where it came from, how it affects milk, the temperature at which it acts, and how heat or cold check or promote the digestion or curdling. Their practical work was making rennet custard. The milk was heated to body temperature, 98 degrees, and the rennet added. When it began to thicken it was spread in a cool place to set the curd. Special directions were given in case of curdling by too much heat or too long cooking. They understood that the curdling was due to the hardening of the albumen and shrinking away from the liquid.

Miss Harmer.

Number work: They have gone on finding out how to draw perpendiculars and to apply this in finding the angle that the sun's rays now make at noon.

O.K.

Miss Camp.

Science: They have begun to gather together the various facts they have had in both plant and animal physiology preparatory to going on with the same work as VII (b) in the physiology of digestion.

O.K.

Miss Camp.

Botany: They have begun the study of other methods of propagation beside through seeds. One of the children suggested that plants could be multiplied by means of slips, so each child took a slip from a geranium and talked about what was necessary for a slip. They thought that a bud must be on the part of the stem that was cut off. The question was asked what was necessary to make the slip grow? They replied that roots must come out from the cut stem. When asked how the stem could be cut

so that the most roots could come out, one of the children said it must be slanting, as they had just been working out this principle in connection with the sun's rays. O.K.

Sewing: Both (a. and (b) have continued work of last week.

Art Work: Has been the same as that given group VI, for both VIIs.

French:

The week's work was begun with a general review of their vocabulary.

The subject was a little play based on one of La Fontaine's fables "La Cigale, la Fourmi et le Rat". The last named character was introduced to lend more action to the play, and to introduce a lesson of kindness at the end.

The vocabulary was presented as usual, by context, illustration, and, when possible, by action.

The children seemed to take a lively interest in the story, and are anxious to learn it to act it.

The imperfect tenses of the verbs avoir and être were reviewed.

Miss Harding. O.K.

**History:**

We begun the life of Marquette, reading from their book and supplementing what is there given by facts from Moses & Kirkland's "History of Chicago". We took up the two motives of the French -- converting the Indians, and trading-- and saw how these would influence their settlements and their dealings with the Indians. We have been careful to locate on the map all places named, and Indian tribes. A map giving the location of the Indian tribes at this time has been obtained, and is being followed. We have noted the confederacy of the Iroquois, and their hostility to the tribes of the west.

We have paid special attention to the route of Marquette and Joliet, from St. Ignace through Green Bay to the Fox river, up the river to the portage to the Wisconsin. Here we noted the change in the direction of the flow of the water. The Fox river and the great lakes all flowed through the Gulf of St. Lawrence. The Wis, as a tributary to the Miss, and the Miss, flowed south. We discussed what this was, and brought out the fact that some of the children had thought the seas and oceans fed the rivers. They gave as a reason for this, that otherwise the lakes would go dry. So we discussed the supply of water to lakes, and on what what direction of flow depends. Some one mentioned the drainage canal, and we discussed the statement in the paper that by connecting Lake Michigan and the Miss, the water would be drained from the lake. Pictures were drawn for them to illustrate water "seeking its own level", and "rising as high as its source". They were given the names "water shed" and "divide", Miss Runyon.

Number work: Same as VII (a).

Science: The children have continued the observation of their plots.

They have determined the number of individuals of each species, and are trying to find out which have the advantage over their fellows, and in what the advantage consists. It has been noticed that the smaller seedlings are not so numerous as they were at first, and a cause for this disappearance is being sought. Some of the plants have been found to live over winter, while others must start from the seed. Those living over winter have well developed underground parts. The general subject of animals and perennials came up in this connection, and it was seen that some plants protect themselves against the cold of winter by living beneath the ground, while others, which live above ground, develop hard woody tissue. Mr. Moore.

Number work: Have worked on the percentage of carbon dioxide allowed in air. In order to state this in the form of percentage they have gone on with some simple examples with decimals, as this was found necessary in order to reduce two parts in 10,000 to two hundredths of a per cent. This work had to be repeated because it had been done understandingly by only one or two last week. O.K. Miss Camp.

Sewing: In practical work they continued the work of the week before. In fibres they illustrated the fourth step in the process of wool carding, with Miss Cushman, and wrote records. Miss Harmer.

Cooking: Same as VI.

Art work: Drew an illustration of fourth step in spinning.

One of the class posed for them, and they have started a large figure on a large sheet of paper, which will be continued whenever the weather does not permit out of door work. P.K.

Miss Cushman.

French: <sup>They</sup> ~~Have~~ had a review of their entire vocabulary. The story of Coriolanus was the subject for the week. The vocabulary was presented as usual, with a view to bringing out the derivation of words and their relation to words of similar meaning and formation. The subject of Coriolanus was given because they were familiar with it in their Latin work. They took it up very readily, and asked to be allowed to act it in costume.

Verbs were reviewed. Miss Harding. *O.K.*



Science: The experiment, described in the last report, for observing the germination, has been completed. The swelling of the seeds, caused by imbibition of water was first noted; then the rupture of the seed-coat in various ways, according to the kind of seed, and the way in which the root emerged. The elongation of the hypocotyl, raising the cotyledons above the ground, in some cases, and in others its failure to elongate, leaving them below the surface, was observed; also the arching of the young shoot to protect its delicate point from injury while pushing through the soil. The origin of different types of roots was seen and their method of branching and of producing root hairs. The question as to the true function of the cotyledons was raised and experiments are under way to decide the matter. A number of observations have been made in the field upon seedlings.

Mr. Moore.

Sewing: Practical, continued work on skirts and aprons. In work of fibres, wrote records.

Art work: Worked on design for the music bench. Miss Gushman.

*P.K.*