AUTUMN QUARTER 1899.

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Through the winter we are going to study the home from the point of view of shelter and construction to meet the needs of a particular family. This will include the interior arrangement and the necessary furnishing of the different rooms according to use. We began with the construction of the smallest houses known to the children, cottages, where one or two rooms only were necessary, and the children made a house out of blocks and then added more and more in detail each day. The second day they built the same cottage and made the streets out of sand on a table, adding the sidewalks that connected them with other streets, the lamp-posts and the stepping-stones across the streets. All this was suggested by the children.

They took up the interior arrangements of their cottages. They outlined with six-inch blocks the rooms and then with smaller blocks put in the furniture that would be needed in the different rooms.

Another group of children cut the houses out of brown paper and drew the sidewalks.

We spoke of the wood that was used in the construction of the cottages and wondered where it came from and how many things wood could be used for, and they suggested, tables and chairs and the wood-work in the houses and finally said that trees were made of wood also and then someone suggested that we chop down trees and get the wood.

We gathered some twigs out of doors and made a forest of trees in the sand-box. The older children went further and made

a river running down through the forest, down which the trees could be floated. They took some of their twigs and put them in the river and found that the branches of the twigs caught into one another. They suggested that these might be cut off. Then they were shown pictures of logs floating down the rivers.

The visited the hardware store to see what tools the carpenter could use to help in building houses.

They cooked flaked rice. This is the third time this year that they have done this. The older children were able to go through the entire process without direction.

Miss Cushman is coming in once a week to direct their drawing.

Their special song this week has been "A Summer Lullaby" by George F. Root.

Miss Scates.

OK

Social Occupations:

We have begun the study of cotton. They looked at a stalk of growing cotton and drew it as well as they could. They took up a boll of cotton and counted the seeds. They found that they averaged about eight to a boll, so that there would be a great many more seeds than would be needed for planting. The children thought they may be given away to other people to plant, but soon found that there would still be an excess. They opened the seeds and found that they were oily, and suggested that oil could be made from them. They were shown some meal ground up and told that cattle and horses liked it. The use of the seeds for food was suggested by one of the children's eating the seed which she was examining.

They planted some of the seeds and found that they had not germinated after a week's time, which is longer than any seed they have yet planted. On examining the seed coat they found it to be very thick and thought that this might account for the length of time it required to germinate. They planted a walnut also to see whether the thickness of its coat would prevent its germinating quickly.

We talked about the climate necessary for cotton and they got the idea that it needed warmth. We looked on the globe and noted the warm belt.

They tried separating the seed from the cotton in order to make the cottonseed meal and oil and to get the cotton ready for baling, spinning and weaving. They found it is very difficult to separate the seed and thought of the necessity of a machine. Some of the children suggested a comb and have been using this at home.

They have been having some practice in number work by adding up

the numbers on each side in playing games. They have had some practice in writing their names in order to label their material.

Miss Andrews.

Hand-work:

Spent two hours in the shop working on ~~sheep pen.~~ leading rack for sheep.

Miss Lackersteen.

Sewing:

They began to braid the silk strips which they sewed last quarter. They are to make holders by sewing the braids into mats. Each child cut three strips one yard long and sewed them together at the end and they began to braid. First we tried holding the strips for the children, but this was too tedious. One child found a hook in the wall and fastened her braid upon it. She found she could work much more quickly in this way. It was found that if we were careful we could use the spool standards for holding the braids and then the work progressed more rapidly. The following suggestions for number work are offered: The children given the name of the yard-stick used and the fact that there are three feet in a yard. They had some practice in thirds, such as, If there are three feet in a yard, what part of a yard is one foot?

Mrs. Feuling.

Cooking:

They made corn-starch pudding and reviewed the number work in connection with fourths and thirds.

Mrs. Feuling.

Shop-work:

Have spent their time in finishing the carts begun last quarter with Mr. Ball.

Miss Jones.

Art Work:

I found by experiments with drawing and with clay that technique is necessarily very much more advanced than in color or in charcoal; that the children are able to analyze forms much better through the sense of touch than through the sense of sight. I have, therefore, decided to make use of this as a medium of transition between work that is purely suggestive and that which is commenced by the study of form. The children have begun to model a sheep. I succeeded in finding a small cast of a ram and they have used this as a sort of guide, though the children have not been encouraged to follow it closely. Some have begun modelling a sheep standing in different positions, others a sheep lying down, but the cast has been used simply as a guide to form. I have had them make their figures without any wire supports. They are about two inches long. I found by having them make the body in the hands without any support, they got the idea very well and perhaps were freer in handling the material. Then the wires were used for legs.

Miss Cushman.

History and Science:

About two-thirds of the time has been spent on number work, finding out how many children in Groups IIIa, IIIb and IVa would be present in cooking on any particular day if all were at school, how many were actually there and then how many were absent. The remaining time was spent in learning to read the program and understand the divisions of time and to read the numbers for the successive periods. They have not yet lost their interest in doing this. Much interest seems to come from outside pressure. In two cases the families at home have expressed much anxiety to have their children learn to read. In the other cases the acquirements of their playmates at the public school have started the desire on their part to read and write. When the reading is for the purpose of using the program it seemed worth while to spend enough time to give them facility. I think they can all read the rooms and a few of the subjects.

Miss Camp.

History and Science: IV b.

They have continued talking about the flocks that people would gradually get after they once began to domesticate animals; then worked out the sort of place they would go to. They thought it would be necessary to have grass for the flocks. So they have left the woods and mountainous regions and come to the grassy plains. Besides grass they thought the sheep would need a great deal of light and air and that water would be necessary. They have now come to the grassy plain and decided to be a small tribe. They suggested twelve people with about thirty sheep. They thought it not unlikely that another tribe would come to the same place, since the plain would feed more than thirty sheep. Now the two tribes have consoli-

dated and arranged to unite their forces, since a fewer number of men would be needed in watching the sheep and it was desirable to have more people at home for other work.

In first planning the consolidation the children thought it would be very bad, because it would be the surest way to bring about a fight. They said then that if they wanted to separate they could not tell which sheep belonged to them. One of the children suggested that one tribe agree to take all the black and another all the white sheep.

They have drawn pictures of the mountainous country and of the grassy plain with the sheep and have begun to model a map in sand of the same.

Miss Hill.

Handwork: IVa.

Have been making book-covers to hold their reading-lessons. Another period was spent in dictating a reading-lesson.

IVb.

Have spent one period in learning to read the programs.

Miss Lackersteen.

Sewing:

Have been working upon bags and needle-books.

Mrs. Feuling.

Cooking:

They made corn-starch pudding with fruit. We had seven figs and six children, and I asked them how they could divide the figs so that each child would have an equal share. They found that they would have to divide the one fig into six equal parts and learned how to write 6.

Mrs. Feuling.

Shop-work:

They made spindles for their textile work and spent the rest of the time on pencil trays begun with Mr. Ball, and on brush houses.

IVb.

Gathered materials for dug-outs and sawed and shaped them. They are beginning to burn them out.

Miss Jones.

Art Work:

They have begun modeling a wild horse in the same manner as Group III. are making their sheep. The children are interested in this from the Story of Ab. We have the casting of a horse and are using that as a guide. I find that these children have begun to observe the model much more closely then they have ever done before. They feel of it and get an idea of the large planes.

Miss Cushman.

a

History:

We began by discussing how much of the world was known to white men before the Americas were discovered. The children knew that it was only a few hundred years ago. In order to do this they took the large relief globe and located the large divisions of land and the ice about the North Pole. We talked about the basin of the Mediterranean and what peoples lived around it, i.e., on the west side the Europeans and on the other side the Moors in Africa, and of the trade that went on between them. The children found out by the globe the ways that could be taken to go to India and the eastern part of Asia and talked about the dangers that would necessarily accompany a trip over land and of the dependence of the Europeans upon the Moors for trade. We also talked about the sort of ships people had then and the help the sailors had in sailing a ship, and that because they had so few instruments and were unable to tell where they were on the sea, they usually kept in sight of land.

Then we began the life of Henry the Navigator.

Miss Hill.

b.

In going from the study of the Indians back to the discovery of the Americas and of the other countries, I asked the children to tell me how the Indians ever got to America. One of them suggested that "God might have placed them there and that they were another Adam and Eve." With the globe we found the countries of the old world where the people were more civilized and traced the way in which the first people might have come to America from the old world.

Then I told the children that we were going back to find

out just how the people of the old world learned about the countries of the new and to do this we would take up Spain and Portugal and their desire for the products of India, especially the spices. I told them of the hostility of the Moors and suggested that this was a time when the people did not believe that the world was round, and we took up the different ways in which they might try to get to India. The children wanted to go through the Mediterranean, but were told that they could not because of the hostility of the Moors and the fact that there was no Suez Canal at the time. The north route was rejected on account of the ice and cold, so we went back to the African route. I told them about Prince Henry of Portugal, that he was the fourth son of the king of Portugal and that he desired to become a knight and in order to do some great thing to win this honor conceived the idea of besieging Ceuta, an important Moorish town on the coast of Africa opposite Gibraltar, that this town was successfully taken and from the captives he learned a good deal about Africa and the products of the country and the lines of travel of the merchants. Then we took up Henry's resolve to spend his time in explorations. As an aid to this, I described the trip of his older brother through Europe and the gift to him of Marco Polo's Travels, together with a chart of the world at that time. We then took up the fact that Prince Henry called together some scholars to study methods of navigation, and we tried to decide what they thought would be necessary in explorations and what he would direct his sailors to look for.

The children said that the North Star would be the means of guidance when it was clear, because it did not move. One of the

children said: "Why, I thought that all the stars are worlds and that all the worlds moved." Then I showed him on the board by a diagram how we were so far from the North Star that even if it did move about in a circle, it would appear to us to be stationary. I asked how people knew the North Star when they saw it and one of the children mentioned the Great Dipper, but although three of the children knew that two of the stars in the Dipper pointed to the North Star, none could draw it on the board. So they were asked to look at it that night and be able to indicate the position the next day, which was done by one of the children who remembered.

We brought out the fact that they had to travel near land because they had no better guidance than the star and that in cloudy weather they would not know where they were. Then the children were asked what the sailors would notice most on their voyage to make it of service to others, and they mentioned charting currents of wind and water, locating sand-bars and rocks and the outlines of the coast and any islands discovered. They were asked how the sailors could measure the distance they went and one of the children suggested anchoring a barrel or buoy with a string attached, then measuring the string, but as this necessitated a very long string and no knowledge of how far they had gone until they returned, the idea was abandoned. Then we got at the idea of rate of sailing by winds and with some help they got the idea of throwing overboard a log to which a string was attached with knots representing the relation of miles to a half minute and calculating from the amount of string let out in a certain time the number of miles or leagues covered. The children also thought it would be well to watch and chart the constellations and were asked to watch groups of stars and see

whether they changed their relative positions during the coming months.

The first discovery of Prince Henry's men which we took up was the island of Madeira. The children were shown the location of the island and told that the next day they would be divided into groups, one-half of the class representing the sailors who came to report the discovery, the rest of the children to be Prince Henry and his men, who would question the sailors and from their replies decide to locate a colony on the island.

The sailors with a globe and chart described the currents which took them to the island, told the number of days the trip required, the latitude of the place which they had found on the globe and from the fact that the island had a mountain nearly one mile high, described the changes of climate, and further from the fact there there were rivers there, they thought it would be a good place for colonization. The slowness with which discoveries were made was represented by telling them that it took nearly two years from the time Prince Henry began to send out expeditions before this island was discovered.

Miss Runyon.

Science:

In connection with the voyages of Prince Henry's men we took up the question of what was the power used in sailing. One of the children gave the story of how they first thought of using sails and suggested that people were going on a raft or boat somewhere across the water and they spread out skins that were not quite dry and discovered that they might be used for sails. They added the

fact that they made use of the currents of wind and water and gave in connection with the air currents the way in which they could change the direction in sailing by the position of the sails and the use of the rudder. One or two of the children knew that this sailing against the wind in a slanting direction was called "tacking", and told how it was done. The details of this are to be worked out when the children have completed their boats in the shop. We went on to find what winds and currents there were on the coast of Africa. b 12.

Miss Camp.

Science:

They have continued their tanning. They have scraped the hair off their skins with sticks and knives and stretched it on a board to dry. They then oiled and put it away to soften, when they will rub it until it is flexible. The rabbit skin used is very transparent and the point was brought out that while so thin a skin would not be used for leather, it could be used in early times when glass was very expensive used in place of windows. They found out easily that the skin could be split before drying and thought that if skins were too thick, they could easily make them any thickness they desired.

Miss Andrews.

Handwork for a.

They have spent one period in making a map with a view to finding out directions.

Miss Lackersteen.

Shop-work for a.

Working at odd pieces begun with Mr. Ball. The group as a whole are making a larger dug-out and burning it.

Miss Jones.

5b.

Gathered materials for small dug-outs and have nearly finished them.

Miss Jones.

Art Work: a & b.

Are making a sketch in clay. One of their number is posing as an Indian woman grinding corn. I have tried the experiment of having them build this figure without any supports. The figure is about 3 inches high and they are building it up in masses. I first made one myself for them to see the process and then when they had got the idea, I destroyed my work and they began theirs.

Miss Cushman.

Reading for a:

The children have been writing out the sentences from their history work, the Life of Marco Polo. These sentences were written by the teacher on the board and the children copied them on paper. Then they wrote some original sentences for themselves, using to some extent the words which had been given in the written work done by the teacher. Then four of them went to the printing press and began to set up for printing the sentences which they had given to be written.

Miss Bacon.

History:

We spent a little time in finishing the history of Chicago deciding the industries that would naturally rise in this region: the storehouses that would be necessary for the great grain products, the slaughter-houses and places for curing beef and tanneries that would come from the ease with which cattle were raised.
We talked about the problems that would arise as the city increased in size: the necessity for better organization, the need for pure water and the use of the lake in place of the rivers and wells.

Then I told them that we were going back to the coast country from which the people came who built up the city of Chicago and to find out where the coast people came from. We took up Columbus merely to get the sequence of events. We began with his attempt to prove that the world was round. We did this by dividing the class into two groups--one-half representing Columbus and his friends, and the rest the Spanish court. When Columbus tried to prove that the world was round, the rest raised all the objections they could think of. The stump question came in reply to the statement that gravity enabled people to remain on different sides of the earth with their feet toward the center. This was, What is gravity?

With diagrams they saw that a ship coming in to the shore and its masts appearing first, would indicate the curve in the surface and also that the higher one went the larger the horizon appeared would indicate a sphere. Then we took up the fact that the explorers were searching for India, and when Columbus found that the land of Africa, in which direction all explorations had been so far, extended so far to the south, he believed that a shorter way would be to sail directly west, because he calculated that the land ex-

tended much further to the east than it really does. We took up the reasons for the desire to find India, as, first, for the gold and spices, and, second, and perhaps equally important, the desire to convert the heathen. Then I reminded the children of the Colonies in America that they had had when they were studying the Northwest: the French in what is now Canada, the Spanish in the south and the English between. We then took up the beginnings of colonization by Sir Walter Raleigh.

Miss Runyon.

Number Work:

They took up half a cup of rolled wheat, which requires double the amount of water, and calculated how much water and how much wheat would be necessary for any number of persons up to ten.

I let them begin the work in their own way, and all, of them began by writing out the number of persons, the quantity of rolled wheat and the amount of water and then drawing a line across the paper and writing out the same thing for the next person. Then I suggested that they arrange it in columns, since the amount of writing they had to do seemed to interfere with the number work. This was done by heading one column "Persons", another "Rolled Wheat" and the third "Water" and putting under each the proper numbers. They expressed their pleasure in the greater ease with which they could do the work. In the next lesson I told them that half a cup of rolled wheat was worth 1/4 cents and asked them to reckon the cost for the different quantities for each number of persons and to put it down in the fourth column, which we headed "Cost". About half the class were able to do this with little help and in the

half hour. Some of the children after a very short time realized that the quantity of cereal increased each time by 1/2 a cup and that the cost increased about 1/4 cent, while the number of persons and the number of cups of water were the same, so that they simply had to add regularly 1/2, 1/4 or the whole.

Miss Runyon.

Science:

They have begun the study of metals used in colonial times. They were shown a pewter dish. They cut it and found that it was soft. They melted a piece and found that it melted very easily,-- that 52 grams of pewter melted in 6X minutes. They then tried to find out what it was made up of. Some suggested that it was lead, because it would make a mark on paper. Some suggested mixing lead and some zinc and tin. We found that the Bunsen burner ~~would~~ was not hot enough to melt tin; so that was postponed.

They found that five grams of zinc and lead in equal quantities would melt in about five minutes. After the mixture had fused and cooled, they tried melting it again and found that it took 22 minutes. to melt the same quantity. They were surprised that it should take so much longer. for the alloy, but decided that this alloy could not be pewter, as it was evidently harder because it took longer to melt. Most of the children had objected to trying tin, thinking it had such a high melting point that it would make pewter even harder to melt, but since they found that the zinc and lead, which melted ~~so~~easily together were so difficult to melt when they were in alloy, they concluded that possibly the reverse might be true with tin and concluded to try this next time.

Miss Andrews.

Art Work:

They have begun bas-reliefs, using water clay. They chose two subjects from the life of Marquette. After suggesting various subjects we found on discussing them that they could not make the story clear in bas-relief. So they got some idea of a subject which adapted itself to sculpture. One chose Marquette ill being carried from the boat to the shore. Another selected the erection of a cross to his memory on the shore where he was buried. I let them put down their own idea of the placing of the figures. One child made two perpendicular lines and then one long line between, as his idea of the carrying. Then I took three wires and laid them on the table and talked about the arrangement of these wires so as to make a pleasant form and explained that composition was merely filling space in an agreeable way. Then I showed them pictures of Greek bas-reliefs, how space is filled and how the figures came together to form a harmonious whole. Then I asked four of the class to stand and form a group of Marquette as he was carried. One of the smaller boys was Marquette and put his arms around the neck of two, while a third carried him by his knees. This group was observed by the rest of the class to get the relative position of the figures. Then they went to work to arrange their groups.

Miss Cushman.

Group VIIa. January 12, 1900.

History:

These children are studying the relation between the different colonies after the French and Indian War. They have studied the great roads which connected Boston with New York and Philadelphia and Virginia. They have discussed the different methods of crossing the streams and decided that small streams would be crossed by log bridges, that ferry-boats would be used for the larger rivers and bridges would be constructed only over streams over which there was a great deal of travel. The teacher read to them extracts from the journal of Hezekiah Prince, in which he describes a trip taken from Maine to Virginia on horseback in the latter part of the eighteenth century. They also discussed the long-shore trade which was developed in the eighteenth century between the colonies and they followed the trip of an imaginary Captain Kiah who loaded his vessel at Plymouth with salt cod fish and pork and sailed to Virginia up to a plantation and noticed all the people he came in contact with on such a voyage. This is to bring out the idea of the inter-relation between the colonies.

Miss Bacon.

b.

We finished the conquest of Mexico by Cortez and left this country as a colony of Spain under the name of New Spain. I should say, we left the study of it at that time, because the children asked how it came to be Mexico now and were told of the rebellion in Mexico, the gaining of their independence and the esttablishment of their government. They have spent one and a half hours this week in writing out a description of the City of Mexico and its conquest by Cortez. A half hour was spent in gathering together the

outlire of the story and getting them distinctly into the minds of the children, and then the children suggested the words which they would naturally use in this story and a spelling lesson was given on these before they began their writing.

Miss Bacon.

Number Work:

They have begun the determination of the different amounts of water that would be needed for various cereals. In the kitchen last year they found that flaked corn would take its own volume of water and saw that by weighing ~~the~~ cereals against the flaked corn and determining the amount of water required, they determined for fractions of a cup, and ~~then~~ for larger quantities.

Miss Hill.

Science for b:

They began the study of physiology from the functional side. We began by moving the arm to discover the muscles by which this is done. They knew, of course, that the upper arm must have one bone and the lower arm another and that they were moved by muscles. So we worked out by feeling of their arms and drawing diagrams where the muscles must be attached. They saw that it would be of no use if both ends of the muscles were attached to the same bone. They next began to work out the nerves, not in an anatomical way, but simply found that when they feel any sensation it must be conveyed to the brain and the idea of motion originating in the brain is carried out by the muscles. We call these simply the "feeling and moving messengers".

Miss Hill.

Industrial Geography for b:

I began by asking what was industrial geography, and as none of them could tell, we took up, whatwas geography and then,what was industry, getting at the idea of doing work. They mentioned such work as sewing and this brought out the idea of clothes and from this we went to the raising of fibre and manufactures. By similar questions we got at the idea of man's needs: food, shelter and clothing--and the industries which supply them. Next with the relief globe we examined the surface. Different places were pointed out to the children. They were asked to study what a man would do if he lived there. Thus, the extreme north was compared with the south, the mountains with the plains and the moist with the dry regions. Next an ideal map was roughly sketched on the board to represent a man on the seashore, one on the plain and one living in the mountains. They were asked what each would do for a living and what one man would do if he had more than enough for his own use. This brought out the idea of exchange and transportation. After the children had made their lists they were told that the next time they would study about the principal food products and were asked to tell which they considered the most important. Grain was decided upon.

Ms. Baptie

Cooking: b.

I asked about animals from which we obtain meat, distinguishing between game, poultry and meat, and discussed uses made of various parts of animals aside from that used for food, viz.--hide, horns,

hoofs, bones, etc. Examined piece of beef, noting appearance of fat and of lean, the latter mottled with fat. Found lean met made up of bundles, which were separated by membrane. Examined a split bone and saw spongy part at joints and compact part between and hollow bone filled with marrow, also gristle on ends of bones. The question was raised as to why the bones were not solid throughout instead of being hollow; one child said they were lighter and another thought it gave greater strength. Hamburg steak, rice, and cocoa were prepared.

Number-work:

Rice takes eight times its bulk of water in boiling. How much water will be required for 1/2 cup rice? Cocoa requires 3/4 cup milk for each person. How much milk will have to be used for seven people?

Books of Reference: Mrs. Lincoln's "Boston Cook Book"; Mrs. Richards' "Chemistry of Cooking and Cleaning"; Miss Parlor's "Young Housekeeper".

E.K. Miss Tough.

German:

This class have begun to study German. We took up, first, the room and parts and I gave them both the singular and plural. The first words taken up were: das Zimmer, die Zimmer; das Fenster, die Fenster; die Thüre, die Thüren; die Wand, die Wände; der Fussboden, die Fussboden; die Wandtafel; die Wandtafeln; der Stuhl, die Stühle; der Tisch, die Tische; die Decke, die Decken. Then

by questions I reviewed them on these words, bringing in the adverbs "wo" and "da". Then asked them how many windows there were in the room and got them to count up to five in German. Then I gave them the form of a request, Bitte zeigen Sie mir,etc. for the different words they had had.

In the next lesson we took up the words they would use in sewing with the plural forms: die Nadel, der Fingerhut, die Scheere, die Arbeit, der Faden, das Nadelohr, der Fasten, die Hand, einfädeln, nähen, ziehen, with the directions that would go with the use of these words. I gave them the idea for kurz and lang, gross and klein, hoch and niedrig and used them in connection with the nouns they had had. Then I asked them to spell the various words they had had given them.

Miss Schibsby.

Sewing:

The children are working on different things begun last quarter--pin-cushions, aprons, mats, holders, etc. I attempted to have them use their German but it was not very successful, as too many directions had to be given which could not be given in German.

Miss Baxter.

Reading:

The group as a whole have continued the reading of "Alice in Wonderland", but I have given some of the children about ten minutes' individual training. Barrett has concentrated his thought so much without expression that he does not vocalize properly. His difficulty seems to be an overtrained mind without sufficient expression. I have aimed to bring the tone forward in the mouth and have him analyze where the tone is, teaching him to speak with a little breath instead of exhausting it as he does. Sometimes I have him sing the tones, then use the vowels, then place the breath with all the explosives, then try to use as little breath as possible and still give the right tone. Carleton has a physical defect in speaking, which is simply due to a wrong method of placing his voice. I am working with him to bring his voice forward in the mouth. Theodore and Paul need most concentration of thought. They appear to have had things done for them too much.

~~Miss Baxter~~. Mrs. Bullis

Art work for a:

They have commenced a figure in relief and have chosen Washington at the head of his army.

for b:

They have spent their time in completing work of last quarter.

Miss Cushman.

History for b:

Same as VIIb.

Miss Bacon.

Latin:

I have taken up the story of Incautus Fur as follows:

"Erat olim pastor, nomine Panurgius, qui multas oves habebat. Uno die dives vicinus viginti ex numero cepit. Pastor erat iratus, ivit ad judicem. Judex erat homo inhonestus, divitem vicinum timuit, et preces pastoris spernebat. Pastor tum ad vicinum ivit et dixit: "Da mihi arietem, ducem gregis." Fur erat incautus et arietem dedit. Pastor tum arietem in humero posuit et domum redire coepit. Dum oves tintinnabulum arietis, ducis gregis, audiverunt, mox celeriter post pastorem saluerunt."

I have concluded to give the children a great many stories for the sake of getting a vocabulary and understanding Latin sentences. I have done little with grammar work. In this story gregis was illustrated by first giving them the idea of one sheep and then telling them that multae oves ~~est~~ sunt gregis. Ducem was understood by the name of the leader for the day and vicinus by naming two children who lived near each other.

Miss Schibsby.

Science:

They reviewed the electrical principles they are supposed to have gained in the use of the electrical bell and motor by taking them up from the point of view of discovery. They have read the account of Faraday&s experiment with an iron core and coil of fine wire, which was the starting point for the dynamo-motor, and are getting materials ready to perform an experiment themselves.

They have begun their physiology by taking two of the exercises in the gymnasium. The first is walking. They took up the general subject of movement in the body and of walking as involving a series of joints. They found the nature of the hip joint and of the knee joint as a hinge in one direction and of the ankle as possessing more pivotal motion and the toes as they move as a whole. Several of the children insisted that there was a joint between the toes and the ankles but found by examining their feet that there was no movement there. One child asked why there were no muscles on top of the shinbone and satisfied herself as to the reason by finding there were no movements of the lower leg forward and upward from the knee beyond a perpendicular line. The other exercise taken up was the arm movements. Starting from the shoulder and upper arm muscles they worked out the mechanism of the forearm. They located the biceps muscles by feeling of them and found that they were attached by a tendon at the shoulder and below the elbow to the forearm. They tried to move the door on its hinges by a string attached in a way similar to the attachment to the biceps and found it was very difficult to do. They thought that it was queer the arm should be attached in a way so difficult to move. They are now making models to work at each of the different classes of levers.

Miss Camp

Cooking:

Same as VIIb. OK.

Music:

The Making of a Group Song.

The following lines had been made the week before:

"The icicles hang from the windows high
And the wind goes shrieking and howling by;
And the bright moonlight shines down on the snow".

Someone objected to "just snow" and wanted "glittering snow"--objected to on account of the rhythm. The three lines were read over with marked rhythm several times and the following suggested for the last line:

"And one little rabbit goes jumping below".

Some of the children objected to having the rabbit, saying it was such a cold night rabbits would not be out. There was some conversation in regard to the habits of rabbits and squirrels; then some one suggested:

"And hunters through the woods do go".

A child objected to the hunters being out at night. Another insisted that it was just the time they would be returning from a deer hunt. Someone wanted:

"And hunters walking about below".

Another child wanted Indians in place of hunters. Another suggested:

"No flowers are blooming down below".

From time to time the three lines were read over with marked rhythm and as no line suggested was regarded better than the first they went back to that.

"Little" and "lonely", "hopping" and "father" were suggested as describing the rabbit. "Lonely" was finally accepted as best suited to the verse. "Hunting" was substituted for "jumping", and the line as finally accepted read:

"And one lonely rabbit goes hunting below".

The teacher suggested that as the first verse was about night, the second be about day. Some of the children wanted a chorus. The teacher suggested that this was not a jolly song so that it did not lend itself easily to a chorus, but if an appropriate one could be suggested, it would be used. None could be thought of, so the second verse was begun.

The first line suggested was:

"As the day grows near and the night grows far".

"Comes" and finally "draws" was suggested in place of "grows" and "passes away" in place of "grows far"--the last objected to. on account of the rhythm. The teacher suggested that as they were going from a night verse to a day verse, it would be well to put the night idea first. It was then given:

"As the night disappears and the day draws near"

and the next line at once suggested:

"Again the cheerful birds we hear".

The next two lines suggested were:

Jumping about on the fleecy snow

Hopping around do the snow-birds go."

One of the children suggested that the snow-birds are about a house and she wanted the song about a lonely place on the mountains. The last two lines were objected to on the ground that birds had just been mentioned. The child who proposed the line said that she was simply telling what the birds did. Then this was opposed on the ground that in the first verse the rabbit had been doing about the same thing. The teacher suggested that they refer again to the

rabbit and tell what became of him in the day. The following was suggested:

"And the same little rabbit goes hopping away
For he's found something to feed him that day."

"Same" was objected to and "gray" substituted. "For" objected to and "because" suggested and rejected and finally "with accepted. One of the children wanted "manger" in place of to "eat". The two verses as finally accepted were:

"The icicles hang from the windows high,
And the wind goes shrieking and howling by.
The bright moonlight shines down on the snow,
And one lonely rabbit goes hunting below.

As the night disappears and the day draws near
Again the cheerful birds we hear,
And the little gray rabbits goes hopping away
With something to eat for the rest of the day."

These verses were set to music line by line and as each phrase offered was acceptable to the class, the entire meoldy as follows was quickly completed.

The children felt that the song was unusually melodic and felt considerable satisfaction that it had been completed in one hour as but four members of the group were present. The question as to whether it is easier to compose with a small than with a larger group did not arise.

Reading:

They are still working at Grandfather's Chair. The children seem to have lost their interest in this since the vacation, so that we shall only finish the first book and then take something else. They are anxious to work at something of their own and see whether they can put into it their own expression.

Miss Rutling.

History:

Miss Hoblit.

Latin:

We have spent most of the time on grammar work with an occasional story. They have the story of the Incautus Fur, but are using it chiefly as a basis for grammar work. We have taken up the subject, object, dative and possessive cases of the three chief declensions using the forms found in the story for illustration.

Miss Schibsby.

Science:

We began our work with the question whether there are things that we can't live without. The children suggested several things: food, clothing, shelter, air, etc. Some of them we decided that we could probably get on without but that air was certainly one we must have. I asked, What is air? They told me several things that they thought was in the air, and I tried to make clear the difference between a combination and a mixture, as illustrated by hydrogen, oxygen and water.

We then went at an experimental determination of the amount of oxygen in the air. This was done by floating on water a bit of paper in which a match was stuck, lighting the match, covering with a beaker, and, after the match had gone out, taking the necessary measurement. This method introduces, of course, certain errors, which we shall talk about at our next meeting, when we shall also try the determination with a bit of phosphorus instead of the match.

Arthur Taber Jones.

Art Work:

They have illustrated the primitive method of carding wool, i.e.

two hands holding the wool. This led to a study of hands. They seem to have an interest in this because they found it was difficult. They had some pride in learning to draw them well. I asked them if they would like to model a hand in clay and they seemed delighted with the idea and are now making a cast of a child's hand. They showed marked ability for the length of time spent in technical work.

Group X.

Science:

This week we have looked a little at some of the theories that have been proposed as to what light is. We first determined that in order for us to see any object, e.g. the table: (1) the table must be there; (2) the eye must be turned toward the table; (3) there must be no opaque body between the eye and the table; (4) there must be light in the room. We then looked briefly at the theories of Pythagoras, Empedocles and Plato, testing each of them to account for these four conditions. The theory of Pythagoras, that something comes from the object to the eye, seemed more natural than that of Plato, that something from the eye mixes with something from the sun, and that this combination mixes with something from the object; but Plato's theory seemed to account better for our not seeing things in the dark.

We then glanced at the corpuscular theory of light as it was held in the 16th century and at the way it explained rectilinear propagation, reflection and refraction. We also referred to Descartes and Huyghens and thus began to look at a wave theory for light We finished by seeing the difference between the corpuscular and undulatory theories of refraction and the consequent importance of a determination of the relative velocity of light in water and air.

Arthur Taber Jones

History:

This week we have been looking up the natural products of New England and the manufactured products carrying this up to about the year 1700. From this list they selected which would naturally be exported from the country. From their knowledge of foreign countries they decided which country each export would be sent to. We then discussed to some extent what the main importations would consist of. Then I told them that England looked upon the colonies at this time as merely adjuncts of her kingdom which existed for her own especial benefit. Then the children concluded that if England wished to make money of the colonies and she left them to trade freely with all countries, it would not be very profitable for her. They were then sent to their books to look up what the navigation laws were and followed out the different laws that were passed from 1640 through to 1750. To make it plain why England insisted on the passing of all products from foreign countries through her ports to America, the children took one item, as, for instance, tea. They supposed it to be bought for about twenty-five cents a pound in China. Then they saw that if brought directly to America, it would be sold, say, for thirty-five cents, but if it passed through England it would have to be sold in England for thirty-five cents a pound. Then the merchants in England would also make their percentage on it, which would of course mean that in America it was sold at a higher price still. Special stress was laid on the navigation laws at this period that the children might realize the gradual growth of the Revolution and the gradual pressure which was brought to bear on the colonies and see that the Revolution was not a sudden thing but was many years in working up to the crisis.

Miss Bacon.

Number Work:

The children ran aground on the addition of fractions, so we took this opportunity to teach reduction to a common denominator and addition and subtraction. This was developed as last year by taking a ruler and giving the children 1/3 of a foot, 1/4 and 1/6 and having them add. This they did readily reducing it to inches. Then by questioning they saw that reducing to inches was the same as reducing to 1/12 of a foot. After working for some time with a ruler we changed to United States money and reduced to a common denominator and added. Then the children of their own accord formulated problems and worked them out without any trouble. After working out the idea they were given drill for half an hour ~~doing this~~.

Miss Bacon.

Science:

Our work last week and this has been in the form of a very informal lecture with frequent questions. I gave briefly last week the theories of light left by Pythagoras, Empedocles and Plato, together with a short statement of the corpuscular theory and the beginning of an undulatory theory, and finally showed how a determination of the relative velocity of light in air an water would overthrow either the corpuscular or the undulatory theory. The class seemed to get hold of the work pretty well. The questions asked first thing at our next meeting were largely on the theories of Empedocles and Plato; e.g., Phebe wanted to know, If light is caused by particles coming from the object to the eye, why can't we wear a hole in the object by looking at it long enough? On Plato's theory of something from the eye mingling with something from the sun and then this combination mixing with something from the object Helen

asked how we could explain the fact that two or three people looking past the same point can see distinctly the things they are respectively looking at without the different combinations from the various eyes and objects getting entangled.

Having thus got at the importance of the determination of the relative velocity of light in air and water I gave Galileo's attempted determination of the velocity of light, Römer's determination by the eclipses of the satellites of Jupiter, Bradley's method by the aberration of light from the stars, Fizeau's direct determination as a modification of Galileo's method, Foucault's direct determination as a modifiedtion of the method suggested by Arago and Michelson's modification of Foucault's method, together, of course, with Foucault's settling the question of the relative velocity in air and water.

The class seemed considerably interested in all this work, even the aberration of light I believe they understood fairly well. My illustration of aberration was the one Professor Michelson uses: a drop of rain falling through the barrel of a gun. Fizeau's, Foucault's and Michelson's work seemed somewhat harder to understand largely on account, I think of the necessity in these cases of a somewhat closer description of the apparatus.

I have asked the class to prepare and give me at our next meeting a written outline of the work so far and from it I expect to be able to judge better how much of the work they really do understand.

Arthur Taber Jones.

Number Work:

I asked the children whether they would rather learn a lot of things superficially or a few things well and with one accord they agreed on the latter; so I told them that I preferred taking exactly the same work as we had last quarter and going over it again until they thoroughly understood it, and so we went back to Proportion and I went over the definitions practically beginning at the beginning in a quick review. We have begun keeping note-books and I make them write down the different principles and definitions from dictation They seem to take pride in their note-books and show a new spirit in the work. The definitions given them are about as follows:

1. Ratio means division. It is written a:b
2. A fraction means division. It is written $\frac{a}{b}$.
3. A ratio and a fraction mean exactly the same thing. $\frac{a}{b}$ is a:b equals a divided by b.
4. If two ratios are equal a proportion is formed. It is written a:b::c:d or $\frac{a}{b}$ is equal to $\frac{c}{d}$.
5. If three terms of a proportion are known the fourth can be found in the following way:

1) Represent the unknown quantity by x.

2) The product of the middle terms (means) equals the product of the outer terms (extremes).

3) Find x by dividing by its coefficient.

Example.

2:4::8:x 2x is equal to 32. x is equal to 16.

Then I gave them the reverse of this. We took 2:4::8:x and tried the second process: 2 divided by 4 is equal to 8 divided by x.

$\frac{2}{4x}$ is equal to $\frac{32}{4x}$. Reducing this to a common denominator gave them some trouble but I think they understand it now.

Miss Moore.

Art Work:

This group is also showing a marked interest in technique and desires to do things because they are difficult. They are beginning a study of the head. We talked about the shape of the skull etc. in the construction of the cast and they have drawn the profile. They have begun a model in clay. Because we did not have the cast we needed, they also spent some time in hands and feet. While their interest lasts I shall give them the technical side and when it lags will put them back where they have more of an artistic object.

Latin:

They have spent their time in reading and in analysis. The chief points taken up this week have been dependent and independent sentences.

Miss Schibsby.

Social Occupations (a and b)

Continued study of cotton plantation. The children have made bales of cotton out of the coton which they ginned and have made meal of the seeds. Thy have drawn pictures on the blackboard of a cotton field with men picking cotton. Afterwards they were shown pictures of sucha a scene.

All the children have learned to write their names and two periods were used in practising. Two periods were used in finding out the meaning of 1/4 and 1/2. Strips of paper 8 in. long were cut by the children, folded and measured. Though they have had practice in this direction in their cooking work and in measuring corn, they seemed entirely at sea in applying the same principles to linear measurements. The children are able to add two numbers under 10 with much greater facility than last quarter.

Miss Andrews.

Hand work (a).

We went on with the work of the sheep pens. Three of the children have finished the work and helped those who had not. The more careful part, that of putting the top part on upright sticks, I had to do. Two days we went on with the same work, those who had finished assisting as before. All but one have finished the work.

Miss Lackerstein.

(b)

Have made a freight car out of stiff paper and cardboard to carry their bales of cotton to the mill to be spun and wowen.

Miss Andre

Sh[illegible] work.

Have spent their time on small carts begun with Mr. Ball.

Miss Jones.

Sewing:

Continued the work of last week and began sewing of holders. The number work was measurements taken in yards and feet.

Mrs. Feuling.

Cooking:

They repeated last week's lesson.

Mrs. Feuling.

Art work.

Continued modelling animals in clay. Our attention was especially called to the relative lengths of head, body and limbs.

Miss Cushman.

Music:

We talked about Mr. Doh and his family. The children readily responded to the questions of who was the father and who was the mother by saying that father sang low and mother sang high. Then Sol, the strong and brave brother, who takes father's place when he is away, and fah, the religious sister who goes to church and sings "Amen" (fah me). Me is the sweet sister whom all the family love and she has a very bright disposition. Ray is a boy who thinks a great deal of father and sister Me, in fact, he likes the whole family. Lah is not so sad as Fah and she reaches mother's affections by picking up baby boy te. The idea is for them to form the relatipnships of the tonic soh fah to one another. For instance, if I give tjem the sign for te, they willsing ray or something else, but with the idea of Lah picking up the baby and going to the mother, they can locake te as well as all others in the scale. The wok with all the groups was set back on account of the untuned piano.

Miss House

History. (

They have taken the settling down for an indefinite period of roving tribe on an island in a river. The advanaages for the village of the position were: the protection afforded by the river. They had an idea that the animals they were hunting--cattle, horses, small deer-p- would not frequent a settledplace. When this village was an island, the habits of theanimals feeding on the adjoining plaijns were not much disturbed, because of the braod expance of running water between the village and the neighboring plains. On one side of the island the land was low and the childrencalled it "River-land". The fact was brought out that it was made by the river depositing there during the flood times the fine soil that it carried. The bank had gradually grown and was no longer flooded except in extreme seasons. Here wild wheat was growing, which the women of the village gathered and threshed and ground for food. The story was made personal by giving them a mother and four children engaged in gathering hwheat and carrying it home for threshing. The point as to how they would gring it was raised but not settled. It was left to be workedout after they had done more work with various cereals in the kitchen, so that they would have some basis for their reasons for grinding.

Finding that they still had the same difficulty they had in fall in taking up any new departure from the story on the inventor discovery side, I have begun the discovery and use of metals ing them many metals to handle, which would give more definite the advantages derived from the different properties of s last year's class. It was not until after three