

History: The discussions of the week and new subject matter given were (1) to establish the chronological connection between Virginia and the New England colonies settled about this time. We recalled what they had had last quarter of the settling of Plymouth colony and of the putch in New York, By trying to find out why these people did not go to Virginia, which was already settled and beginning to be prosperous. In the case of plymouth we brought out the desire for religious liberty and in the case of New York, the desire to claim territory for Holland.

The next development in Virginia was the massacre of 1622. The causes for this were, (1) The death of Powhatana and the feeling of his successor that the English would take all land of Indians. The pretext for war was the death of an Indian by a white man. (2) The colonies had become so engrossed in raising tobacco,- and on so friendly terms with Indians that they had supplied them with guns and got them to do the hunting. (3) The settlements were too far apart to aid each other. (4) The total number killed was about one-tenth of population. The result of the massacre was brought out (1) No further attempt at friendship with Indians as a whole, but continual watchfulness. (2) Systematic raids against Indians,- at time their crops were ripe,-burning them; and in fall or spring when they had become weakened by lack of food. One period spent in writing, one in reading. Miss Runyon.

Geography: Continued the topography of Virginia and found how much greater the elevation is in the mountains than along the sea coast.

Miss Hill.

Cooking: Continued talk on wheat. Cut grain of wheat and examined, noting brown outer covering and white inner part.

Miss Tough.

Sewing: Same as last report. in practical work. In Pioneer life work they continued fine sewing on linen for bedding.

Science Hand-work: In their copper work they all ^{reached} ~~reached~~ the stage ready for cleaning except two, who are working on much thicker pieces.

Science: They started an experiment to find out what gas was generated by seeds during germination. They soaked a pint of peas over night, and in the morning put them in a jar with a little ~~xxxxx~~ moisture and covered it with a glass,- having put vaseline on the edges so that no gas could escape-- and left it to stand to test next time what gas was in the jar. They wrote a record as far as they had gone in this experiment.

Miss Andrews.

Science: Made a list of all the places on one parallel of latitude in the United States at which there was an experiment station, noting the temperature at that time and comparing the results, noting that it was different on the same parallel. They discussed why this was so, and what factors affected climate. They concluded that though the altitude made a great difference, nearness to large bodies of water modified the climate,-- nearness to mountain chains,-- the altitude of the place, prevailing winds and ocean currents--all affected climate. They discussed why it was that in England the climate was warmer than in New England, although the former has the greater altitude. With a climate map they found the warm current on the shore of England and cold current on the shore of New England.

One period was spent in the study of latitude and longitude as the children did not know very clearly what the terms meant.

Miss Andrews.

Sewing: Began pin cushions of canvas previously described.

Pioneer work: Continued paper or carding.

Cooking: Balanced cereals and proportion of water calculated.

The following is a record:

- I. Flaked corn. One part water to one part cereal and corn should take up as much water as cereal.
- II. Ground corn. Ground corn weighs 5 1-2 times more than the flaked corn. Take 5 1-2 parts water to one part cereal.
- III. Flaked wheat. Flaked wheat weighs 2 times as much as flaked corn. One part cereal to two parts water.
- IV. Ground wheat. Ground wheat weighs six times as much as flaked corn. Take one part cereal to six parts water.
- V. Ground wheat. One part cereal to $\frac{6}{2}$ part water.

IV. Ground wheat. One part cereal to 6 water.

V. Ground wheat . One part cereal to 7 water.

History: Have followed the course of the Revolution: the fortifying of Bunker hill, the battle; the conditions of the provincial army, its lack of training, of supplies and everything that goes to make a well-equipped army. The children have concluded that since the army is fighting for the whole of the colonies, all should help pay for it. They have read quite a little at home and have discussed in school what has been read. They have spent one period in writing. Miss Bacon.



History: Have taken up in story form the life of Cyrus as type of new conqueror and of the coming into East of the Aryans. The two events emphasized were the conquest of Babylon and the return of the Hebrews, and the conquest of Croesus and certain Greek cities. With the map we saw the extent of country that paid tribute to Cyrus ~~and methods~~. The legend of his early life was given, and the Jews of the time connected with Daniel as a representative.

The conquests of Cyrus and fact that the people had been unified to some extent help^{ed} to make possible the conquest by Alexander, whom we took up as adding to his greekian kingdom the East. The life was told as a story, recalling from their study of Greek history last year the attack of Xerxes, and that Alexander was, in his idea, avenging this and other assaults of the Persians.

The children attempted to contrast Oriental and greek civilization, bringing out the wealth and luxuries of the east and the love of beauty and learning of the greeks. Were told of Alexander's attempt to unite the two nations by awarding all Greek soldiers who married Asiatic women, and by leaving a garrison of Greek soldiers in all large cities,- though native governor left in command of civil affairs. His attempt also to introduce greek language and literature.

One period spent in writing the chief events of Cyrus's life as they had been given to them. Miss Runyon.

Pioneer industries: Continued work on baskets.

Sewing: same as VI.

Cooking. Same as VI.

Botany: We took up the factors that make plant societies. Noticing the plants in the room,- that some were very much more luxuriant than others-- they discussed the reason for this. The plants in the glass case grew much better than the plants outside, although other conditions were equal. They decided that moisture made a great difference. They counted nineteen different species in the glass case, only five of which had been planted, and concluded that the earth must have contained the seeds of the other fourteen species. Another box, containing earth from the same place, taken at the same time, had only a few seedlings in it which had not been planted,- although there was plenty of room for them to come up. The dryness of the atmosphere was considered the cause of this. Other factors, such as light, heat, and soil, were discussed, and the children talked about what sort of a place there would be in a region where there was most heat and least water,- and what sort of place in a region where there was most heat and most water,- The former, known to be a desert, they said would be most undesirable for plants,- and the other the tropics, caused the most luxuriant vegetation in the world. We brought out the fact that only spring flowers were found in the great forests, and that they were due to the lack of leaves in the spring, permitting the light to come in.

Miss Andrews.

Mechanics: Continued calculations to find horse power of the engine at the power house. Several of the children had difficulty with the multiplication involved,- particularly Evelyn and Caryce.

Miss Will.

History: Have taken up Chicago from 1823 to 1833. The prominent people, their homes, school and churches, their streets, bridges and roads.

Chicago after a time needed a city government, and obtained a charter from the legislature. We discussed what things a town ought to do,-the purely local matters. They ought to attend to the roads, for they use them most; the fire department, and the good order of the town. They next discussed how they would pay for these things, and concluded every man in town ought to help; and in order to have the taxes just, they must have the value of the land and assess according to that.

From this, they worked out that there must be some kind of a body of men to attend to these matters; and agreed that they ought to be elected by the people. We followed out the first election of the five trustees from the notice of the meeting for nomination to first meeting of the board. Miss Bacon.

Practical sewing: Draughting of skirts continued. Miss Tough.

Pioneer industries: Continued paper on carding. Miss Harmer.

Mechanics: Made observations of pendulum with length of string 39, 25 and 4 inches respectively. They have found out how many times they must have the escape wheel revolve, and will calculate to find length of pendulum required. Miss Hill.

Cooking: Same as Group VI. Papers were written giving the proportion of water to each cereal studied, and the general statement made that hot water makes starch pastey; cold water makes it clear,- and both make it yet clearer.

Art Work. All groups up to IX have worked on still life,- tulips drawn in colors.

History: Same as Group ~~IX~~ VIII.

Number Work: They have been working out the geometrical forms of some Java figures which are to be used as dies. They are to be made in wood when the rules for construction are worked out.

Miss Bacon.

Cooking: Same as VI.

Sewing. Boys worked on loom. Girls finished draughting of skirts, and calculated the amount of material which would be required for them.

Miss Tough.

Pioneer Industries: We studied the principle of spinning, beginning with primitive methods.. We drew out the carded strands and twisted the parallel fibres to form a thread.

I. Hand rolling against ~~finger~~ or thigh.

II. Wool attached to stone or twig which revolves in the air.

III. Twig difficult to spin and balanced by a wooden disc called a "whorl".

IV. Large Indian wheel turned by hand, giving greater number of revolutions to smaller spindle. Compared to sprocket wheel of bicycle.

V. Wheel worked with treadle, - German flax wheel.

We talked about communication by means of letters. We began with the letters written in their own homes, and traced their travels to their destination. The children folded paper into writing sheets and made envelopes. From bristol~~board~~ board they made boxes in which to keep the paper. We talked about the letter boxes on the posts, and made mail wagons out of boxes, cutting the wheels out of card board.

We cooked rice with dates.

Group I

We talked about animals and plants which are found in Java, especially coffee and spices. The children examined specimens of the different kinds.

They practiced writing their own names as most of the children could only print. One hour was spent in reading and making words, as the children showed great interest in it. They finished the furniture for their house: a table, a scroll for the wall, and the bead curtain for the door..

We talked about the products of Java that are used in this country, and how they get here. They have traced the route of a vessel laden with spices and coffee from Java to Chicago, and have talked about the dealers through whose hands the cargo would pass before it reached us.

They have learned to read the word "spice" when written on the board, and have given other words of similar sound, and can read them, and can write some of them.

In number work they have learned by experiment, - making figures with sticks on the table marked off into squares inches -

that the greater number of sides a figure has, perimeters remaining equal, the greater its area. They have marked it out calling the perimeter a fence, and tried to find how it would enclose the biggest pasture. Group I can now count to 100 by 2, 5 and 10s.

Miss Andrews.

Cooking: As period was short did not cook, but prepared tables in dining room for luncheon.

Miss Tough.

Sewing: Same as last week.

Miss Tough.

Art Work: Have drawn geranium leaves and made a picture of their Japanese house.

Group II

History: The children spent one period and about five or ten minutes of three or four others in the last two weeks in discussing rates of time in which men, animals, steam-boats and trains travel. This had been taken up a very little earlier in the year, and they had very indefinite ideas of how far men could travel. I took the athletic records and gave them the miles walked in an hour, and in twenty-four hours. They then discussed the fact that men traveling as their tribes were now doing, in trading, with burdens on their backs or leading burdened animals, would travel very much slower than these rates. After several guesses they were assisted to reach approximate conclusions. From the different kinds of country over which they passed in trading they named the villages for convenience in discussion,

giving such names as "Wheattown", "High-bank", and "Sea-Shell Village".

They have been trying to make a clasp like a Russian clasp, with a mixture of tin and lead, melted with a clay pipe. They were shown a lot of the metals they had been using and the clasp, and then told to pick out that which resembled the clasp. They all, with one exception picked out tin, silver and lead. The silver was rejected on account of its value being too great, and they tried various preparations, first by bulk and then by weight, to find an alloy which would give the smoothness of surface and bright color of the clasp. Two half hours were spent in discussing the general properties of the metals they have been using,-- iron, tin, zinc, lead and silver. They have examined the ores of copper, silver and iron. One of the group had been to a blasting furnace, and gave the rest a very good description of the smelting of the ore, and some idea of the immense heat.

In discussing the various beasts of burden, they cut out of paper certain typical animals, and spent a half hour in talking of animals, taking geographies and going through them to find illustrations of animals that carried burdens, and marking the places. They enjoyed using books this way very much. They have been told the story of the Incas and their use of the mountain Llama and of their primitive smelting and use of gold, silver, and copper. They have spent about an hour in each of these weeks in discussion of different animals,--habits and uses. I think they have got the general idea that all burden bearing animals are grass-eating animals§

Miss Camp.

Cooking:

Talked about the inner part of wheat and flour that is made from it. Made experiments with 1 tter and found that by pouring boiling water on it it became thick and lumpy. By using cold water there was no thickening, but a thin smooth mixture which, on adding boiling water and cooking, gave a smooth thick mixture.

Talked about the effect of boiling water on starch grains and concluded that it was the bursting of these which thickened the mixture in the experiment. Miss Tough.

Sewing: Began work on needle books of felt which are to be edged with a blanked stitch in worsted. The inner part is to be of flannel, also blanked-stitched. The two are held together by two stitches in the middle. Miss Tough.

Botany: Have evaporated the water filtered from the soil in last week's experiemnt and have found that some of the soil was dissolved by the water.

Science: Cleaned and colored their copper trays.

They put both hot water and cold water on soil to see which dissolved the most. Miss Andrews.

Art. Groups II and III have made a picture of the Japanese house made by Group I. They also drew the geranium.

Miss Cushman.

History:

Work has been about the same as that given Group II, spending less time, however, upon the domestic animals and their habits, and more time on metals and the uses of the different metals. In connection with their cutting out of the different animals and drawing them with Miss Cushman, they discussed the ornamentation on pottery and the making of bronze ornaments. They looked through "The Stone, Bronze and Iron Ages" by _____ and looked at the pictures of the mammoth, cave bear, reindeer, the elk, and saw also a picture of a bronze dagger with a man's torso for a handle, and many pictures of pottery. After looking at this book two of the children said spontaneously, "I wish I could have that book!" They had seen the same book in the fall with a good deal of indifference, and now requested that it be left on the table for them to look at.

After all this discussion of barbaric man and what ornaments he would have, what things he would naturally know how to draw because of the hours he had spent watching animals, I read them Kipling's story of Ung. In telling the story of the Incas, the question of the gods that they worshiped came up and the temples that they built; also what the medicine men did in the South American and North American tribes. One of the children said Wasn't it silly of them to do those things,-- meaning the charms ^{thrown} drawn over the sick person's body by the magic arrow. "No" said another child, "they were not silly to the Indians, because they believed them."

Miss Camp

Sewing: Same as group II.

Miss Tough.

Cppling:

I. Review of work on cereals.

II. Record of work put in shape for printing. Miss Harmer.

Primitive industries:

I. Practices spinning and cording.

II. Practiced spinning.

Number work: (outline of work that has been done during the quarter.)

Money: Began by asking what is used for money--kind of metals used for coin, and reasons for using gold and silver instead of iron. We made circles of cardboard to represent different coins, and marked them. Whole numbers learned in this way were 100, 50, 25, 10 and 5. With these we added by 10s, multiplied by 50, 25, 10, 5 by 2 and 4; divided 100, ~~50~~ by 50, 25, 10, 5; and 50 by 50, 25, 10 and 5. Divided 25 by 25, 10, and 5.

We took up the fractional parts of a dollar, $1-2 = .50$,
 $1-4 = .25$.

Ratios and proportion-- comparison of money with blocks.

12 in. block : 6 in. block : : 100 : ?

Problems given them were: (1) Find two blocks that represent 150

(2) Find three blocks that represent 150
 etc.

Weights: I began by showing them how to weight one ounce. They made paper bags to hold the sand weighed. After sixteen or more ounces had been weighed, the children put a pound weight on the scale and balanced it and found that sixteen ounces equal one lb. From this we took up the fractions of a lb.

They handled weights with their eyes closed, and tried to judge their value. Then, with eyes still closed, a known weight was placed in one hand, and they were asked to judge the value

of the unknown weight in the other hand. They were next given two weights and judged their value.

Comparison of weights with money, or 100.

They were asked if 1 lb. is valued at 100, what is the value of a half a lb? etc. Then they attempted to judge of weights as before, with closed eyes, and expressed their values in terms of 100,- and then by adding two weights, e.g. 1 lb. and 4 oz. = 125.

Time: We found out the number of minutes in an hour by counting by tens on the face of the clock. They then told me the number of minutes in 2, 3, 1-2, 1 and 1-2 hours.

Röman numbers. They drew a clock face and set the clock at the time they like best. Then told what the time indicated. Then I set the hands and had them guess what happens at that time.

Mrs. Baxter.

Art.Work: Given in II.

History: One period spent in painting the map and making pyramids from clay, paying special attention to getting good forms. One period was spent in sailing the boat. Our first trip was to Cyprus to get copper ore. The children were divided into two groups, one the Phoenician sailors, the other the natives of Cyprus. They were asked how they could make the people of Cyprus -- who presumably could not speak their language -- know that they wanted copper. One child proposed that they talk French to them;-- another that they spell out words on their fingers. But when their methods were shown to be absurd by other members of the class,-- they worked out a very good pantomime, using a piece of copper ore to indicate their desires.

In the history, we continued to bring out the enlargement of Carthage. I gave them a list of things in which the Phoenicians traded,-- ivory, ebony, gums, precious stones, etc. and we tried to see where each came from, how it would be obtained, and what it would be used for.

The rest of the time was spent on Nebuchadnezzar and his thirteen years' siege of Tyre. We took up the meaning of the word and the methods of warfare of the times. Knowing that the cities were walled, the children were asked how it would be possible to capture such a city, and brought out the fact that a siege meant an attempt to starve out. We brought out the difficulty of doing this in the case of a city on the sea shore, with a good fleet. The other way,-- of breaking down walls led to the means by which this could be done-- the ram, and how it was worked, and the protection of the men working it. The use of watch towers was brought out, of armor and the different bodies of fighters: archers, slingers, cavalry, including chariots, and the spear and sword troops. One of the children

said regretfully that he "wished he had lived in that time", but another member of the class immediately began to tell the advantages of the Nineteenth century man. Miss Runyon.

Physiography: We took up the influence of bodies of water on climate of adjacent countries. They took the temperature of water in the room and of several objects. They noticed the lowering of the thermometer by the evaporation of water on the bulb. Then, in order to find out the different effects of the heat of the sun on water and on soil, they experimented with sand and water and found that water was, of course, heated all the way through in a certain length of time, while in the same volume of sand, that at the bottom of the beaker got intensely hot while the temperature at the top was scarcely changed. They then took the temperature of the sand and of the water after two hours.

They started to make each a thermometer. One of the things they remembered most vividly from last year's work was seeing me make a thermometer and fill it with mercury by expelling the air and inverting the tube over mercury. The work of melting the glass and blowing the bulb at just the right moment is almost too difficult for them. It is probable that this would better be deferred to another year. Miss Camp.

Sewing: continued work on needle books.

Class did not meet in Cooking.

Science: Washed and colored copper dishes. Miss Andrews.

Art work: Worked on their ground plan of the temple of Karnac. One who had finished drew the facade. The group as a whole drew a geranium. Miss Cushman.

History:

In order to get a review of the work of the quarter, without having it a question and answer affair, I gave each child a topic on which he was to report (orally) to the class. They were to recall what had been given in class, and were given books belonging to the school in which they could get additional information. These were taken home, read and returned when the topic was given. The topics assigned were general: John Smith, Pocahontas, Lord Delaware,- the great Charter,- Tobacco,- Indentured servants,- Slaves, etc. The children showed a good deal of interest in doing this work, and all but two or three have reported.

In addition, in order to give an idea of the time that elapsed between great events, we took up the life of the settlements at this time: the early houses, the children said at once were log houses,- but did not know that this was because of the lack of saw mills. They were told how expensive iron was ~~nails were~~, and described what could be used as a substitute in nails and hinges. We described the earlier and later house on the plantation: the separate kitchen, the cabins of the Negroes, the various out-buildings and their uses. To show the isolation that was beginning, they were told of the private docks of the planters, where English ships loaded tobacco and returned the goods ordered from England. We brought out the lack of roads which helped to separate people. Facts were taken from Alice Moore Earle's "Home Life in the Colonies"

One period was spent on the punishments of the times as given by Eggleston, and one period in reading to them from "Stories of Virginia" by Eggleston, a review of the early life.

Miss punyon.

Science: Made drawings of seeds of four different types and planted them to see if they can discover any relation between the shape of seed and the shape of the cotyledons. The seeds were (1) squash, ^{+ ground} (2) corn, wheat and rye, (3) pea and bean, (4) pine seed.

We talked about the region of copper mines in this country, its native state and the reason it is such a useful metal. Some crystals having formed on the edge of the dish containing the acid with which their trays were washed, some of the children thought these crystals might be found in the earth, but when they tried the action of water on them they saw that they were soluble and immediately said that the rain would prevent the formation of such crystals.

Two of the children left their trays in the furnace too long and they were oxidized so much that they crumbled all up to a black powder. They talked about the reason for this and what it was that really happened.

They tested the gas in the jar of germinating peas which they prepared last week, and found that a lighted match was put out and lime water was made turbid. They decided that the gas was carbon dioxide given off by the peas. They took some pea seedlings started in fresh air and put some of them in the jar of carbon dioxide and let the others remain in the fresh air. After two days they looked at them and found that the one in the carbon dioxide had grown hardly at all, while the other had grown half an inch. Compared the needs of plants with those of animals. Wrote records of these experiments. Miss Andrews.

Cooking: Same as group III.

Primitive industries: continued work on bedding. Miss Farmer.

1st Work. Illustrated the Indian Camp as found by Miles Standish.

Miss Cushman

Sewing: Continued work on holders.

Miss Tough.

Group VI

History: We took up the condition of the army when Washington found it and discussed the work he did in getting his men together, in training and preparing them. They had the story of the siezing of Ticonderoga by Ethan Allen. Topics had been assigned them on which they read and reported in class. They spent half an hour in writing, and an hour in getting their papers of the quarter together and binding them.

Miss Bacon.

Science: Tried an experiment to see whether black or white coverings affected the temperature of a body. They wrapped a thermometer in black cloth and one in white cloth and hung them outdoors in the sun and left them twenty minutes. Then they brought them in and found that there was six degrees difference between the two thermometers, the one covered with black being the higher. They compared the result with that of the experiment performed by the Missori Experiment station upon peach trees which was whitewashing the trees to prevent the buds swelling during warm days in winter. The children decided that white reflected heat while black absorbed it. Wrote records

They discussed the effect upon climate of ocean currents and found on a map of currents the countries in the same latitude washed by cold currents and those washed by warm currents, and compared what they thought would be the climate with the map of isotherms. They discussed the zones and the relative temperature of each and by the study of the isothermal map saw

that there could not be any sharp lines drawn between them, although certain latitudes were called the boundaries.

Miss Andrews.

Cooking: Same as Group III.

Pioneer Industries: finished writing record on carding.

Sewing: Worked on pin cushion started last week.

French: Took up and continued sewing in French.

Group VII

History: We continued taking in outline the forces controlling the history of Europe. We took up the breaking up of the grecian empire after Alexander, and how and why Rome has risen until it came to a struggle with Carthage for the trade of the Mediterranean. We talked about Pyrrhus and his aid to the grecian cities against Rome, and of the support given Hannibal, and of this fact as an excuse for the attack by Rome and the conquest of Greece. We noted the fact that Rome was first a city, and the method of adding territory and of governing the additions. We recalled what the children knew about Caesar, and marked his time as the end of the Republic. Then they were told of the changes that came with Augustus and succeeding emperors until Constantine, who changed the seat of government and made Christianity one of the national religions. The removal of the capital and the loss of the early vigor of the Romans was given as beginning of the fall of the empire. The children were told of the barbarians of the north and the Roman method of dealing with them when they pressed upon the borders. They

Then they were told of the entering under Odoacer and his conquest of Italy and the division of land among his troops; then the driving out of these or conquest by Theodoric and the union of Teutonic and Latin customs and language, and of the complete separation of East and West. We took up also the growth of the church, the change from the office of bishop of Rome to pope, the increasing power of the pope, and the reasons why he called in Charlemagne and revived the title of "Emperor of Rome." We took up briefly the beginning and effects of the growth of feudalism, and of the monastic system, and of the crusades. Showing that feudalism stratified society, while the Church was the only democratic institution; the conflict that must come between Church and state because each was a land-holder, and while the king had to give away part of his territory, the church was always increasing. The effect of the crusades in opening up to general use the luxuries of the east, and how this led later to the movements to find a short way to India, culminating in the discovery of America. We discussed the ignorance of the Dark ages and the revival of learning, first through the churches which had kept it alive. The knowledge of gunpowder in warfare, and its effect. The use of printing generally, and how all these things helped to make possible the discovery of America.

Much of this has been a little beyond some of the children, but most have I think got the general idea that the countries of Europe are not separate wholes each with its own history, but are the results of a long process of evolution, and that there were certain forces which influenced all.

Miss Punyon.