

MEASURING UNITS.

In General Use.

The business world employs many measuring units. The dry goods merchant uses the yard stick, the farmer the bushel measure, the land agent the acre, and all of us the dollar. Children do a vast amount of work manipulating values with these measuring units. Some investigation has led me to think that if some of the time now given to manipulating values were spent in getting a more definite and uniform notion of the units of measurement the children would be much better equipped to think, to judge, or in other words — to measure.

Tests Made.

A class of young people estimating the value of a certain school building that cost about a hundred thousand dollars submitted guesses ranging all the way from three hundred dollars up to one million dollars. They were tested in local distances, the height of a tall tree, the number of bricks in a paved street, stalks of corn on an acre and so on. Their answers continued to be surprising. A million to them was ten hundred thousand or some other term equally as abstract and as meaningless. They seemed to be much interested in finding out that there were about a million bricks in a mile of paved street, or about a million cornstalks on a hundred acres of corn land. This hundred acres would accommodate about the same number of soldiers standing in solid formation.

The District Full of Various Units.

The district in which we are working may seem very plain and monotonous yet it is full of objects and opportunities for getting clear and definite units of measurement. However, if the children are left to acquire these units by chance they will probably get vague and erroneous ones. A square rod can be marked on the floor in one corner of the school-room, and you have the unit of land measurement. A better one is to get a boy to stand with one heel just a yard ahead of the other. With a string tie his feet so that they can get no farther apart. Start him in at the corner of the field and have him take full-length steps out towards the opposite corner. When he has taken ninety-five steps have him put up a marker for

this in the opposite corner of a square acre. Another marker placed ninety-five steps farther is at the opposite corner of a four-acre plot. The value of land per acre can be impressed by ascertaining the average value of land in your district and then measuring off enough space on the school floor to represent the amount of land that can be purchased for a nickle, or even a penny. If land is fifty dollars an acre it is worth about a penny a square yard, or five square yards for a nickle. If the land is a hundred dollars an acre the penny or nickle will pay for only half as much land and so on.

Other Units.

A mile should be pointed out as the distance between two definite places. Then the children are ready to get some meaning out of the length of the Equator or the distance to the moon. The population of your district can be summed up in a few minutes and then you have a unit for understanding the numbers that represent the populations of cities and of countries. These facts are easy to obtain. In a single day that I spent in a country school I noted over six hundred facts.

A Large Subject.

As one studies this subject it grows larger and larger. The local stories could be collected, refined and left in some permanent form. These would serve as measuring units in determining the quality and quantity of our literature. Units for measuring geographical facts can be found in your district, and so on with units for various other subjects. In teaching facts about the district one does not need to treat it as if it were the whole world, but he should treat it as containing the measuring units which with the help of the multiplication table will equal the whole world.—*School News and Practical Educator.*

RATHER HARD.

They gave him whistles and a drum,
Two big tin tops that buzz and hum,
A ninepin set, some squeaking toys;
Then said: "Now, Tom, don't make a noise!"
They gave her paints, a sewing-box,
Four dolls and stuff to make their frocks,
A set of books with pictures gay;
Then said: "Now, Madge, run out and play!"

— *St. Nicholas.*