February, 1937

ELEMENTARY SCIENCE SECTION

THIS EARTH OF OURS



More About the Behavior of the Earth

There are several factors, some of which are unknown, that produce differences in weather. One of these is the earth itself, its movements, shape, and form, and its mountains, valleys, and oceans.

The earth has two important movements. It turns on its axis once every twenty-four hours. This movement causes day and night. It is called rotation. The other movement called revolution refers to the earth's travel around the sun. It takes the earth about three hundred sity-five days to complete one revolution.

The earth as it travels in its pathway through the sky does not stay in the same position with relation to the sun at all times. At certain times during the year, its position is such that the sun would be directly over its middle. This is true on about the twenty-first of March and twenty-first of September. At this time days and nights are of equal length.

After March twenty-first, the earth changes its position a little each day. The south pole tips farther and farther away from the sun while be north pole tips toward it. This movement

AUNT JULIA'S.

Ant Ways

Ants are experts in care of the baby. The ant nurses know exactly how to feed and take care of the baby ants in their various stages—as grub or larva. as pupa. and as a real baby ant.

When the grub is ready to sleep, the nurses cover it with earth which serves as a bed. The grub then weaves a silken cocoon around itself. When the cocoon is finished and the pupa is already asleep, the nurses very carefully remove the covering of earth.

When the sleeping period is over and the baby ant is ready to come out, it does not have to bite its way out. The nurses know exactly when the pupa should wake up. The attendant workers are called upon to rip the cocoon on



one side and tenderly help the occupants to escape. These little baby ants are pale and weak and their skin is very soft. They are called *calious*. While the *callous* are hardening their skin, they are fed and cleaned by the nurses.

At first only wingless workers are produced.

of the earth goes on until the twenty-first of June, when an opposite movement starts. In June the sun seems to be farther north. The days are, in this part of the year, longer than the nights in the northern hemisphere.

After September twenty-first, the north pole tips away and the south pole tips toward the (Please turn to page 27)