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.

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## 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)

## ANSWERS TO THE QUESTIONS on page 5

	Ι		II
1.	suitable	1.	huge
2.	cheered	2.	weary
3.	strong	3.	appropriate
4.	big	4.	Mischievous
5.	naughty	5.	vivid
6.	tired	6.	response
7.	clear	7.	sturdy
8.	terrible	8.	consoled
9.	reply	9.	pompous
10.	splendid	10.	tremendous

## ANSWERS TO THE QUESTIONS on pages 6 and 7

## GRADE TWO

- 1. save-box (x)
- 2. pocket  $(\vee)$
- 3. handkerchief (x)
- 4. bank  $(\vee)$
- 5. wardrobe (x)
- 6. books  $(\vee)$

#### GRADE THREE

- 1. cheap
- 2. cheap
- 3. dear

## GRADE FOUR

## Pedro

He used his notebooks wisely.

He bought a bottle of ink for four centavos.

## Jose

He gave away his pieces of clean pa-

night to find food. Sometimes all it needs to do is to stretch its head end of the hole and eat what it finds within reach. At other times it has to leave its hole to seek food. The earthworm eats leaves both fresh and partly decayed. For meat, it cats broken parts of insects.

There are many interesting things about the carthworm. It can crawl backward as well as forward. It is carless, eyeless, and footless, but it can do many wonderful feats.

## More About the Behavior of the Earth

#### (Continued from page 24)

sun. The southern hemisphere in turn will have longer days than nights.

The Philippines is not far from the equator. Hence we are near the sun throughout the year and weather is warm all through the year. On which side of the equator is our country located?

Oceans and high mountains influence the weather of a place. Water absorbs heat from the sun and stores it up. In the cold season when the land should be very cold the near-by sea gives off the heat it has stored up and makes the land warmer than it would be if it were far from the sea. In the hot season, the air over the land is cooled by the air from the sea. Thus the land near the sea does not become extremely cold or unbearably hot.

Mountains affect climate by cutting off cooling winds from large areas. The wind from the sea contains moisture. When it blows toward the interior, it strikes against the mountains and the moisture falls as rain. When the wind reaches the place beyond the mountains, it is already dry. Because of such conditions, deserts exist beyond high mountains.

Baguio which is located among high mountains is much cooler than Manila. It is because the air grows thinner as we go upward from sea level. Air holds heat. The thinner the air, the less heat it holds. Hence the difference between the climate on the top of the mountain and that on the valley only a few miles away.

per.

He wanted candies better than books.

## GRADE FIVE

l. always	4. sometimes	
2. sometimes	5. never, never	
<ol><li>never</li></ol>		

## GRADE SEVEN

S	A	v	E
self	answer	virginity	energy
seconds	assignment	vow `	eyes
speech	appearance	vision	effort
ship	age	virtue	enemy
silver	art	vivacity	empire