

in which T stands for temperature, and N for number of chirps per minute.

#### Locusts.

The common, red legged locust lays its eggs during the fall in holes in the ground which the female drills by means of hard plates at the tip of the abdomen. The eggs, thirty to one hundred in number, are laid in a mass and covered with a gelatinous secretion. In these holes, an inch or so below the surface of the ground, the eggs pass the winter and hatch out in early spring into young locusts, looking much like the adults, only of smaller size, and without wings. The same is true of the crickets and grass-hoppers. By a succession of moltings they gradually change into the adult form, in other words the metamorphosis is said to be incomplete. Recall the changes in the life-cycle of a butterfly, in the latter the metamorphosis is spoken of as complete.

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Observe the modes of locomotion; crawling, jumping and flying. How is the jumping effected? Compare the hind legs with the front legs as to size, shape and strength. Draw the front legs, also the hind legs. What reason would you advance to explain the greater development of the hind legs? Before answering, review what was said with regard to the principle of natural selection in our treatment of the Antiopa Butterfly.

Books recommended for teachers: Text-Book in General Zoology, by Linville and Kelly, Ginn & Co., Boston; Introduction to Zoology, by Davenport, Macmillan Co. of Canada, Toronto; Nature Study and Life, by Hodge, Ginn & Co.; Farm Friends and Farm Foes, by Weed, D. C. Heath & Co. Boston.

The space for our studies for this month has been devoted to insects, but we wish the teacher and pupils to extend their activities in other directions as well, and to consider the outlines given as an example of what should be attempted in other fields.

Below is a list, with some suggestions which will supply additional exercises.

**MAMMALS.**—Squirrels, description and life history and comparison of the different kinds native to the Maritime Provinces. Note their preparations for winter, where and how do they spend it? Rabbits and Foxes, treated as above.

**BIRDS.**—The Hen, description and life history; compare it with other birds, as the Wild Duck, Wild Goose, Partridge, etc., etc. Migrations of birds, as shown in the Swallows, Blackbirds, etc.

## REPRODUCTION STORIES.

### A Faithful Dog.

A man who was once traveling with his dog took out his purse one morning to see if he had money enough for the day. He then left his room, leaving the dog behind.

When he went to pay for his dinner he found that a gold coin had been lost from his purse. On returning home in the evening, his servant told him that the dog seemed to be ill. It had not tasted a mouthful of food all day.

The man went at once to look at the dog. As soon as he entered the room the faithful creature ran and laid the missing coin at his feet. It then ate the food that had been laid down for it.

The man had dropped the coin in the morning, and the dog had picked it up. All day long he had held the gold piece, fearing even to eat, lest he should lose it before he could return it to his master.

### A Beaver's House.

A man owned a beaver which he tried to tame. The little creature never, however, lost his natural instinct for building.

One day when the family was away, the beaver found his way into the house, and began to build. As there were no sticks or mud, he made use of anything he could find. He gathered boots, baskets, books, and gloves, and piled them up, just as he would have done in the woods.

When the man returned, he found the whole house in confusion. The beaver was lying snug in the cosy home he had built in a corner of the dining room.

### Bird Helpers

A sparrow while flying among some telephone wires in a large city, hurt one of its wings. The bird dropped helpless into the street. In vain it tried to fly up to its nest under the eaves of a nearby house.

Two other sparrows heard the cries of the wounded bird. They tried to lift it, but they were not strong enough. At last they flew up to a tree, from which they took a strong twig, and together carried it in their bills to the place where the wounded bird sat.

Each held one end of the twig, while the wounded bird took hold of the middle. Supported in this way the bird was lifted to its nest.

### The Dog's Count.

A dog belonging to a gentleman used to go every day to the butcher's shop for a piece of meat. Every time the meat was supplied the butcher made a cross on a board with a piece of chalk. The dog always waited to see this done, then he started for home with the meat.

One day the dog noticed the butcher made two crosses with the chalk instead of one. He at once seized a second piece of meat, and in spite of the efforts of the butcher to hold him, ran off with both pieces in his mouth.