

NATURE STUDY OF ANIMALS.

Suggestions for the last part of November and the first part of December

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As general work for the grades, the lower, the intermediate and the advanced, base your studies for this month on the dog, varying the work according to the grade, and making the exercises largely of the nature of a comparison with some other well known animal, e. g., the cat.

Since we are studying things, not books, it would be well to have at hand some good natured dog that would not object to being handled. This will add interest to the work, and give you a chance to show your pupils how to carry on nature study work.

We suggest the following exercise:—

Study the general shape, size and covering of the body of the dog, and compare with the cat. Which has the softer coat. Which the firmer body and why? Explain how its habits of life tend to produce a muscular body. In what position is the dog's body when running fast? What other motions or gaits has the dog? Watch him trotting along a path, does he always carry his body in a straight line with the path? Does he stealthily stalk his prey like the cat, or run it down in wolf-fashion? How does he capture and hold his prey?

Compare the limbs of these animals, also their feet and claws. The advanced grades should make out a similarity of skeletal structure of these parts. Compare the size of the claws. The cat's claws are retractile, which explains why her feet seem so soft at times. Can the dog retract his? Does the dog use his claws in catching and in helping to hold his prey? What is their use? Boys will be eager to tell about dogs digging out burrowing animals, thus suggesting an answer. Which animal has the firmer and heavier pads, and why?

Note the shape of the pupil of the eye in each animal. Can both see equally well in the dark? The dog uses his eyes very little in the chase, but his sense of smell is so keen that he readily follows the track of the fox or rabbit, made hours before. Does he also use this sense in recognizing his friends and in detecting strangers?

Notice the listening attitude of the dog, and the position and shape of his ears. Are they well

adapted for catching sound? Can man hear and smell as keenly as the dog?

Examine the teeth of the dog, and make out a formula for their arrangement, according to directions given in the October REVIEW. Is he as well provided with molars as the cow? Watch him gnawing a bone and notice the teeth he uses. The long canine teeth are called tushes in the dog. Find these teeth in other animals and note how they compare in length with those of the dog.

Consider the food of the dog. On what does he chiefly feed? Note that he has not yet learned to chew his food properly, but gnaws it off in small chunks and gulps it down. What do you infer regarding his powers of digestion?

How does the dog express emotions of attention, delight, affection, fear, shame and anger? Do you know of other animals that are equally demonstrative?

There are said to be as many as 200 different breeds of dogs, all derived from wolves or wolf-like animals. With the aid of your pupils make a list of the principal breeds. How many breeds are represented in your community? Pick out and discuss the more economic breeds, pointing out the chief value of each.

The dog is the great companion animal of man, and has been associated with him long before the dawn of history. One author has said that "the dog is the most companionable, and has the most human qualities and intelligence of all our domesticated animals."

These are but a few topics for the nature study of the dog; others of greater interest may be at hand, be free to use them, and all that you use make your own — fill with your own personality.

Encourage the collection of stories about dogs; have several read in the school. Direct the advanced grades to longer stories as "Beautiful Joe," "The Call of the Wild," etc., etc. Here also is a splendid opportunity for story-telling, composition work and essay writing.

The study of insects is not entirely passed with the passing of summer and early autumn. The Fall Cankerworm is common during November, and for many reasons deserves special attention at this time. This rather delicate silky-winged moth is at this season of the year found flying in the vicinity of our orchards, and at night is attracted to nearby lighted windows. These are the