## Nature-Study.

### Hints for January Talks.

For the younger grades a series of talks illustrated by pictures of birds and other animals will prove interesting and beget in the children an appreciation of animal life,—how animals prepare for winter, where the birds have gone, which remain for us for the winter, such as the English sparrow, chickadees, nuthatch, pine grosbeak, etc. What do they find to eat, what are the different things you have seen them doing? How are they protected from the cold?

The winter is a good season for studying the common domestic animals, such as the cat, dog, horse, cow and others. The cat belongs to a large family, the members of which can only be illustrated by pictures—the wild cat, lynx, tiger, panther and others, but they have the same characteristic as the domestic cat. They are flesh-eating; they approach their prey stealthily and spring quickly upon it; they have sharp claws which can be drawn into and out of sheaths; they have soft cushions on the bottom of their paws which enable them to tread noiselessly, they have sharp teeth for cutting and biting their prey; they have long sensitive whiskers which help them to feel their way in the dark; their cool moist noses help them to scent keenly; their erect ears enable them to hear the slightest noise.

Pictures will help to distinguish the various breeds of dogs and their relatives the fox and the wolf. Has the dog claws that can be drawn into sheaths? Does he spring on his prey like the cat? Does he hunt at night? Has he the same quick scent and hearing? Is his tongue rough like that of the cat? Name some of the common breeds of dogs. Illustrate their faithfulness and other traits by stories—of Eskimo dogs, St. Bernard, shepherd, Newfoundland, and others.

How do grass-eating animals get their food? How do their teeth differ from those of the cat and dog? Their feet? What animal feeds on either flesh or vegetables? (The bear). What is chewing the cud? Name some animals that are relatives of the cow and horse. (The sheep, goat, deer, moose, etc.)

Get the children to tell you what they can about their home animals; their tameness, uses, fitness for their surroundings, and to give stories about them.

Get the children to tell you what they can about the air, the winds and their direction, water, ice. Continue the weather records for this month. Keep up the observations on the stars and their movements in the sky. What is the planet Jupiter's position compared with that when you began to observe it in November or December?

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Did you notice the two stars quite close to each other, like a pair of bright eyes, in the early hours of Christmas Eve in the south-west sky? These were the planets Saturn and Mars in conjunction, the latter a little the brighter, and reddish. They set about nine o'clock on the first of the new year. They both shine by the reflected light of the sun. Why is it then that Saturn, which according to its larger area should be about fifteen times as bright as Mars is not quite so bright? Watch these planets in the early evening sky as they draw apart during the month.

The magnificent group of constellations which adorns the winter sky is now fairly visible in the east and south-east. Orion, the finest of them all, is also the best one to use as a pointer to help us to find the others. At 8.30 o'clock in the evening about the first of January, it is almost due south-east, and about one-third of the way from the horizon to the zenith. Its two brightest stars, Betelgeuse and Rigel, lie to the left and right of the line of three which form Orion's belt. Two others, not quite so bright, Bellatrix and Saiph, complete a quadrilateral which incloses the belt and also the smaller group on the right, known as the sword. The middle one of these last three stars is perhaps the most remarkable object in the heavens. A field-glass will show it double, and a small telescope resolves the brighter of the three stars seen with the field-glass into four components, to which a powerful instrument adds two more.

The line of Orion's belt points downward to Sirius, which even at its present low altitude is easily the brightest star in the sky, and upward to Aldebaran, and beyond it to Jupiter, near which to the northward are the Pleiades.

The very bright star in the Milky Way, north of Aldebaran, is Capella, in the constellation Auriga. Below this is Gemini, marked by the twin stars