

AN INTRODUCTION TO THE PRIMATES

STUDY SHEET – List of Primate Features

1. Trends of Primate Development.

1. eyes that move from the side of the head to the front, permitting binocular vision.
They become enclosed in bony eye sockets.
2. development of colour vision and diurnal lifestyle.
3. reduction of the muzzle or snout (reduced sense of smell).
4. change from wet nose like a dog to dry nose (part of reduced importance of sense of smell).
5. transition from claws to nails on ends of digits, to protect sensitive tactile nerve endings.
6. development of hands and feet from supportive to grasping hand to opposable thumb and grasping big toe.
7. development of hemochorial placenta – only one layer – so more oxygen gets through to nourish fetus, particularly the brain.
8. enlargement of brain in relation to body size.
9. reduced number of offspring from litter of 3 or 4 to 1 every 5 years.
10. increased lifespan and stages of development coupled with intense long lasting maternal care.

2. Features of Prosimians

1. eyes spaced wide apart surrounded by a bar of bone, not an eye socket, often nocturnal, tapetum or reflective layer in the eye.
2. less colour vision or none at all.
3. retention of longer muzzle because the sense of smell is still important.
4. wet nose skin, like a dog, to pick up scent more easily.
5. often have scent glands to mark areas where they live (on wrist, face or circum anal area).
6. although most have some nails, they retain some claws on hind feet to help with grooming.
7. grasping hands but not opposable thumbs.
8. dental comb. lower incisors pointed and sloping forward make a dental comb to aid grooming.
9. some retain whiskers (vibrissae) to help move in the dark.
10. some use nests to rest in during the day and to protect the infants, especially if they have more than one at a time.

3. Features of New World Monkeys

1. the only nocturnal monkey.
2. a dental pattern which has 36 teeth (except for the smallest forms) with an additional premolar in each quarter of the jaw .
3. prehensile tails in some forms.
4. nostrils which are oriented to the side with a wide nasal septum between them.
5. features of the inner ear structure which are not visible from the outside.

4. Features of Old World Monkeys.

1. narrow nasal septum
2. reduced number of premolars - total of 32 teeth
3. some have cheek pouches
4. others have specialized stomachs to digest mature leaves

5. Features of Apes

1. specialized shoulders for arm swinging.
2. longer arms than legs
3. no tail
4. long fingers, short thumbs