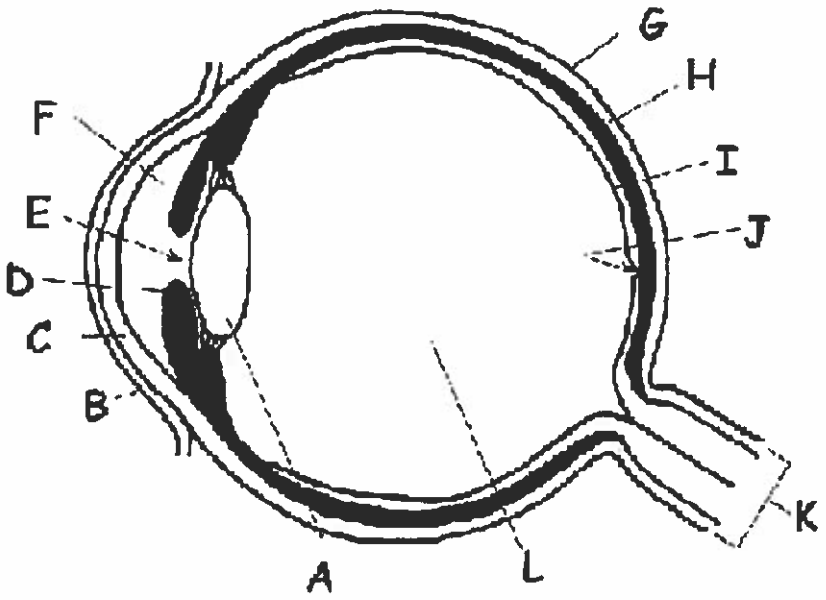
Name:_____
Date:_____

Special Senses Packet

1. The diagram shows an eye of a mammal. In the table below add the names of the structures indicated by the letters.



CHOICES: Aqueous humour; choroid; conjunctiva; fovea; optic nerve; cornea; iris; lens; retina; sclera; vitreous humour; pupil

A	.....
B	.....
C	.....
D	.....
E	.....
F	.....

G	.....
H	.....
I	.....
J	.....
K	.....
L	.....

2.Insert the correct term in the table below. Some terms may be used more than once.

CHOICES: Aqueous humour; Choroid; Conjunctiva; Iris; Optic nerve; Blind spot; Cornea; Sclera; Retina; Vitreous humour; Pupil; Nictitating membrane

Term	Description
.....	1. Fluid that fills the anterior (front) chamber of the eye.
.....	2. The white of the eye.
.....	4. Coating that provides nutrients to eye. Becomes the iris in the front of the eye.
.....	5. Layer containing the rods and cones.
.....	6. Jelly-like substance filling the posterior cavity of the eyeball.
.....	7. Heavily pigmented coating that prevents light scattering within the eyeball: reflects light in nocturnal animals.
.....	8. Colored structure that controls the size of the pupil.
.....	10. Most anterior part of the sclera—the window on to the world.
.....	11. Outer coating of tough, fibrous connective tissue.
.....	12. Aperture of the eye. Where the light enters.
.....	13. The delicate membrane that covers the front of the eyeball.
.....	14. The third eyelid.
	15. The nerve that takes nerve impulses from the retina to the brain.

3. Are these statements about the eye **true** or **false**? If false give the correct answer.

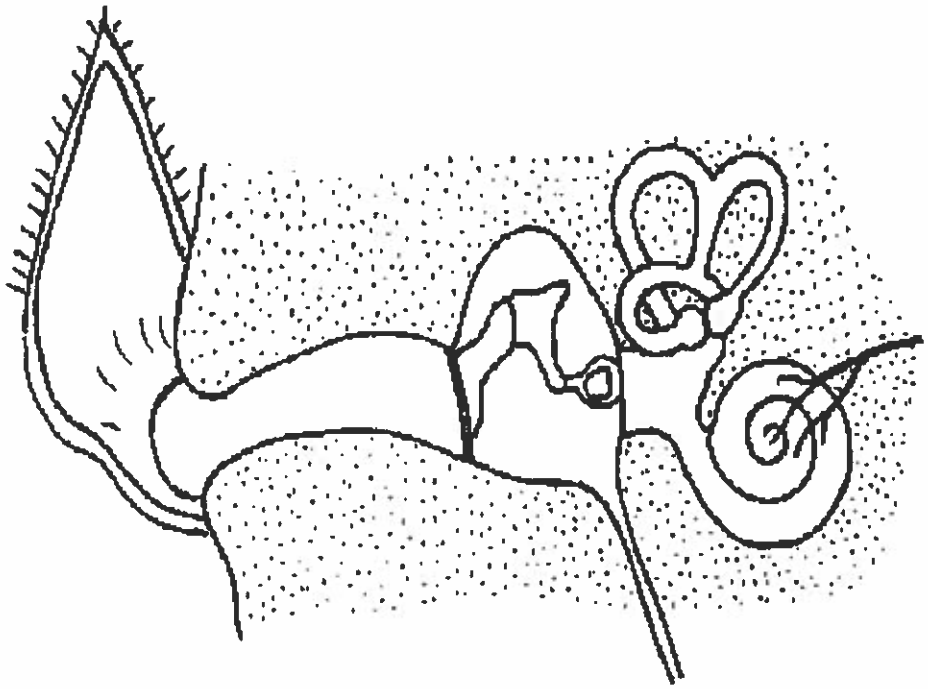
1. Prey animals like the rabbit have a large area of binocular vision. T/F
2. The rods of the retina function in dim light and do not respond well to colour. T/F
3. The lacrimal glands secrete fluid that washes the outer surface of the eye and keeps it moist. T/F
4. The conjunctiva is the inner lining of the eyeball. T/F
5. When the eye focuses both the lens and the cornea change in shape. T/F
8. The size of the pupil changes in different light intensities. T/F
9. The parasympathetic nervous system brings about dilation (expansion)of the pupil. T/F

4. Match the terms in the list below to the descriptions in the table.
Auditory ossicles; Pinna; Tympanic membrane; Cochlea; Eustachian tube; Vestibular organ; Middle ear Inner ear; Auditory nerve

Term	Description
.....	1. Connects the pharynx (throat) and the middle ear to keep the air pressures equal.
.....	2. Vibrates as sound waves hit it. Transmits these vibrations to the auditory ossicles.
.....	3. Animals can turn this towards the direction of the sound.
.....	4. The smallest bones in the body. They transmit sound vibrations across the middle ear.
.....	5. Sound vibrations are converted here into electrical impulses.
.....	6. Contains receptors for the sense of balance and movement.
.....	8. The part of the ear consisting of the cochlea and vestibular organ.
.....	9. The part of the ear that contains the ear (auditory) ossicles.
.....	10. The nerve that transmits nerve impulses from the cochlea to the brain

5. The diagram below shows an ear of a mammal. Add the labels below to the diagram.

Auditory ossicles; Pinna; Tympanic membrane; Cochlea; Ear canal; Eustacian tube; Semicircular canals; Outer ear; Middle ear; Inner ear; Auditory nerve



6. Rearrange these parts of the ear in the order in which sound waves travel to stimulate the cochlea.

Auditory ossicles; Tympanic membrane; Ear canal; Inner ear

Sound	.....	.....	.....	.....	**Cochlea**

7. Complete the statements below by adding the words in bold.

tongue; temperature; otoliths; olfactory; hairs; nose; pressure; vestibular; touch; cerebellum;

1. The canals are filled with fluid and fine ..... that are stimulated when the head moves.
2. The receptor cells send nerve impulses along the .....nerve to the .....in the brain.
3. The otolith organs form the second part of the vestibular organ. They contain tiny pieces of chalk called .....that stimulate hair cells and tell the animal which way up it is.
4. The special sense organ for taste are located on the .....
5. The sensory cells concerned with smell are called the .....organ. This is located in the .....
6. In the skin, cells that sense ....., ...and .....are found.