Sci 9 CYU p111 # 1b, 2,3,4,5,8,9,12,16

1b. A sperm is designed for its function in that it has a flagellum to propel it towards the egg, extra mitochondria to power it, and enzymes in the head to borrow through the egg’s membrane.

2. The purpose of the mitochondria is to power the flagella.

3. Sperm is produced by the testes.

4.200-300 million sperm are produced per day. Sperm that are not used die within a few days and get broken down by white blood cells.

5. Testes produce and nourish the sperm and produce testosterone.

8. Semen contains: sperm and seminal fluid. Seminal fluid provides sugar for energy, protects the sperm from acidic environment of female reproductive tract, and provide the fluid for swimming.

9. Two functions of the penis are to provide a route for urine to leave the body and to inject sperm inside the female reproductive tract for internal fertilization.

12. a) male secondary sex characterizes are those not directly involved in reproduction but serve to distinguish male from female and appear during puberty. They include, increases height, muscle mass, facial hair and deepening of the voice.

B) they are called secondary because they have no direct role in sexual reproduction.

c) these characteristics initiate due a rise in testosterone produced in the testes. This production is stimulated by the pituitary gland in the brain.

d) purpose may be to look bigger and more ferocious to attract and protect a mate.

16. The difference between a mature and immature sperm cell: They start diploid on the inner most surface of the seminiferous tubules, dividing by mitosis, pushing older ones out to the middle of the tubule, where they undergo meiosis to become haploid, getting nourishment along the way. Finish maturing in the epididymis. Take about 65-75 days.

Many are needed due to the harsh environment. Those not used get recycled.