

Exam 2

What is in all bacterial cell walls?

What are microtubules made of? What are microfilament made of?

What is so unique about mitochondria and chloroplasts DNA?

What do spinel fibers do?

When are chromosomes visible?

List and draw all the centromere locations. label the q and p arm on the ones you can.

Describe the process of separating sister chromatids. Include shugosin, seperase, spindle fibers, and kinetochore proteins.

Describe interphase. Which stage do cancer cells skip?

Describe the stages mitosis in the order they happen.

What is crossing over? Does it happen in both mitosis and meiosis?

Meiosis steps follow a similar pattern to mitosis. Describe the differences and why they happen.

List and describe all 3 stages of spermatogenesis.

List the 4 stages of oogenesis.

What are heterogametic sex chromosomes and homogametic ones?

Which ducts form male parts and which for female ones?

Describe all the steps of sexual differentiation.

What is the PARs, MSY, and the SRY region on the Y chromosome?

What are the two theories for birds being sexually dimorphic?

What is the gynandromorph chicken?

What is freemartins?

Describe Klinefelter syndrome.

Describe Turners syndrome.

What is dosage compensation and Barr bodies? What is the Lyon hypothesis?

What is Temperature determining factors? What animals will this affect?

What is an aneuploidy? What are the two types?

What is a nondisjunction?

Describe down syndrome and what happens genetically.

What is euploidy and polyploidy? What are the two types of polyploidies?

What is an autotetraploid?

What is an autotetraploid and an amphidiploid?

