

March 12<sup>th</sup> MCM #10

<https://goo.gl/forms/FIUlevAPtukDJlhF2>

March 13<sup>th</sup> TT #10

**7.3.U7** Explain the primary level of protein structure [4]

- A. Chain of amino acid
- B. Linked by peptide bond
- C. Determined by DNA/genetic code
- D. Determines the type / function of protein / 2<sup>o</sup> and 3<sup>o</sup> structures;

March 14<sup>th</sup> WW #10

**3.4.A2** A boy inherited red-green colorblindness from one of his grandfather's. Deduce, giving your reasons, which of his two grandfathers was also color-blind. [4]

- A. Red-green colorblindness is a sex-linked character / gene located on X chromosome;
- B. Boy inherits X chromosome from mother, only inherits Y chromosome from father;
- C. Boy's mother must have been carrying the gene;
- D. He inherited it from mother's father / maternal grandfather;

March 15<sup>th</sup> TTh #10

**8.2.U11** The mitochondrion carries out key reactions in the cells of eukaryotes.

1. State the names of A and B. [1]
2. State the processes that occur at A and B. [1]
3. Explain the relationship between the structure of the mitochondrion and its function. [3]



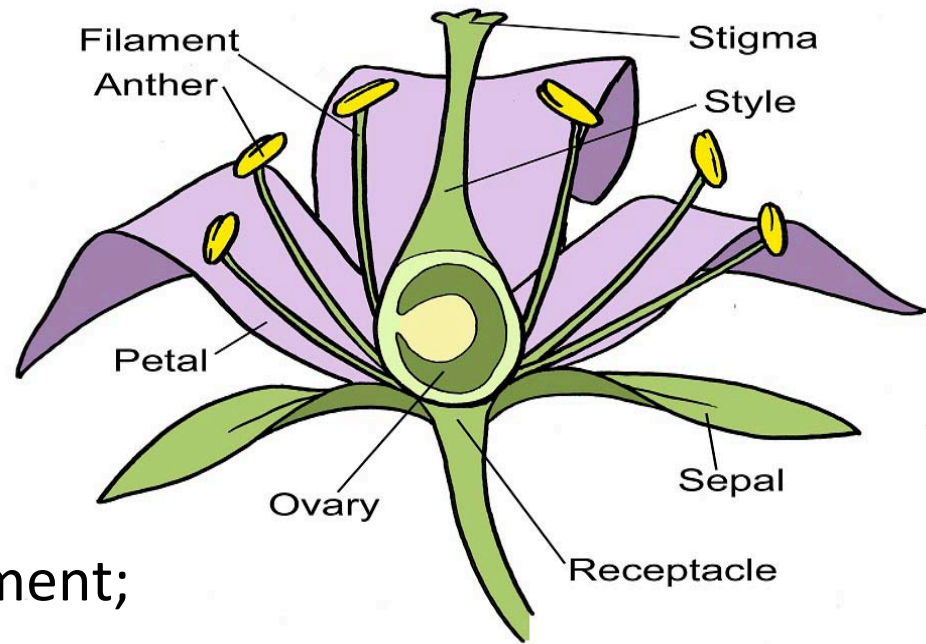
## March 15<sup>th</sup> TTh #10

1. Both needed for [1]
  - A. cristae / inner membrane;
  - B. matrix;
2. Both needed for [1]
  - A. Electron transport / chemiosmosis;
  - B. Kreb's cycle
3. Max [3]
  - A. Large surface area of cristae allows electron transport / oxidative phosphorylation to be very efficient;
  - B. Matrix provides necessary chemical environment for the krebs cycle;
  - C. Small distance between inner and outer membranes allows rapid movement of molecules between cytosol and matrix;
  - D. Small space between membranes allows protons to be accumulated / concentrated;

March 16<sup>th</sup> FF #10

**9.4.S2** Draw the structure of a dicotyledonous animal-pollinated flower. [5]

- A. Petals;
- B. Sepal;
- C. Stigma;
- D. Style;
- E. Ovary;
- F. Stamen / anther and filament;
- G. Receptacle / nectary;



Filament + Anther = Stamen  
Stigma + Style + Ovary = Carpel