Video Assignment

Create a narrated, stop-motion video that animates a chromosome process, structure, or seminal experiment in cytogenetics. The video should be at least 2 minutes long, and must be based on at least 3 references from the literature. Grades will be based on correctness of material shown in the video, as well as style and clarity of message of the video. The point total will be distributed as follows: worksheets prior to preparing script=5 points each; final, edited script=25 points; storyboard=40 points; final; edited video=75 points. Students will work in groups of 3, with each member of the group contributing equally to the total work. Some possible topics are listed below, but you can also, upon consultation with the instructor, select an alternative topic.

Addition of the cohesin complex to chromosomes during S phase

Chromosome cohesion in meiosis I and meiosis II; patterns of maintenance and release through cell division

Experiments that demonstrate the existence of chromosome territories

Animation of Holliday model for recombination

Inverted meiosis

Imprinted chromosome elimination

Distance segregation in your choice of distance-segregating organism

Adaptations to geometry problems for holocentric chromosomes

Pre-metaphase stretch