The microscope lab answers

Introduction to the microscope laboratory activity introduction micro refers to tiny, perimeter refers to view or view. Microscopes are tools used to enlarge images of small objects so they can be examined. The composite light microscope is an instrument with two lenses that magnifies, and a variety of buttons to dissolve (focus) the image. Since it uses more than one lens, it is sometimes called the composite microscope, additionally referred to as a light microscope. In this laboratory we learn more about the correct use and handling of the microscope. Goals – Students can: Demonstrate the correct procedures used to correctly use the composite light microscope. Prepare a wet holder and use it. Determine the overall magnification of the microscope. Explain how to handle the microscope correctly. Describe changes in the field of view and available light when you switch from low to high power with the composite light microscope, explain why objects in the field of view need to be centered before switching from low to high power with the composite light microscope. Explain how you can increase the amount of light when you go from low to high power with the composite light microscope. Explain the correct method for focusing at low and high power with the composite light microscope. Hypothesis The method known as wet assembly can be used to prepare a sample on a slide that can be viewed with a composite light microscope to produce an enlarged image. Materials Compound Microscope Glass Slide Cover Slips Eye Drop Mug Water The Letter e Cut From Newsprint Scissors Method I. Microscope Handling Carry the Microscope with Both Hands — One on the Arm and the Other Under the Base of the Microscope. One person from each group will now go to the microscope storage area and transport a microscope properly to your work area. The other person in the group picks up scissors, a newsprint, a slide and a cover sheet. Remove the dust cover and store it properly. Connect the area. Do not turn it on until prompted. Examine the microscope and specify the function of each part on the right side of the diagram. Specify the function(s) for the numbered parts of the Composite Microscope. MIKROSKOP FUNCTIONS PARTS 1.

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8. _____ 9. _____ 10. _____ 11. _____ 12. _____ 13. _____ Preparation of a wet holder of the letter e. Use scissors to cut the letter e from the newspaper. Place it on the glass slide to look like (e). Cover it with a clean lid slip. See figure below. Place a drop of water on the edge of the lid with your eye droplets, where it touches the glass slide. The water should be sucked under the slide if it is done properly. Technique for adding a stain when rotating a wet mount on the microscope and placing the slide on the stage; make sure that the e is facing the normal reading position (see figure above). With the price focus and the low performance, move the body tube down until the e is clearly visible. Draw what you see in the room below. Describe the relationship between what you see through the eyepiece and what you see on stage. _____ 7. When you look through the eyepiece, move the slide into the upper right part of the stage. In which direction is the image moving?

There are four phases of mitosis: prophase, metaphase, anaphase and telophase. Before mitosis is interphase (when the cell grows and all organelles duplicate), and post-mitosis is cytokenesis (when the cell membrane pinches to divide the actual cell into two halves to form two cells (animal) or when a cell plate is formed to separate the cells (plant). Cells divide to replace, grow and reproduce new organisms. Can we help you with your task? Let's do your homework! Professional authors in all fields are available and meet your application deadline. Free proofreading and copying included. Hypothesis It can be predicted that all somatic cells will go through all stages of mitosis several times in their lives, that the considered will be able to see the chromosomes in a stage of mitosis. Finally, it is predicted that the cells will not look large or clear, but it will still give me a general idea of what is going on. Materials The materials used in this laboratory are: microscope (with 40X, 100X and 400 X magnifications) Prepared microscope slide of an onion root tips Prepared microscope dia of a whitefish embryo Observations When observing the onion root tip cells for the stage of the prophase, the cells assumed a brick-like structure and within the cells are small points (the cells see. In a particular nucleus, the chromatin has condensed to such an extent that it can be seen with a light microscope. The phase in which the cell is currently located is prophase. Also the cell walls in the onion root were hardly visible, but the seeds were very clear. All this was seen in 400X total enlargement. When observing the white fish embryo cells for the stage of the metaphase, the cells took a circular shape and, like the onion root cell, many nuclei can be nuclei In a particular cell, the chromatin, which was condensing during the prophase, line up at the equatorial plate. This particular cell is in the metaphase. This, like the onion root cells, was considered at 400 times the total enlargement. When observing the white fish embryo for the stage of the anaphase, the entire cell form remained the same and they still had a circular shape. In a particular cell, the chromosomes (condensed chromatin) that were lined up in the previous stage break away from their duplicates and move towards opposite centrioles. The phase in which the cell is currently located is a phase. Like the last two specimens, this was considered in 400 times magnification. When observing the white fish embryo cells for the stage of the telophase, the overall shape remained the same, with the exception of one cell currently in the telophase stage. The cell, which is in the telophase stage, looks like two circular cells that are connected to each other. At this stage, the chromosomes reached the zentorias and a nucleus begins to form around each nucleus. This was also displayed at 400X magnification. READ: Type of Reactions Laboratory ResponsesDiscussion When a mother cell has 10 chromosomes, each daughter cell also has 10 chromosomes. The mother cell duplicates its chromosomes so that each daughter cell receives the exact number it originally has. Percentage of cells = (B of cells showing mitosis) /Total cells observed x 100 phase Number of cells Percent of total cells in this phase prophase metaphase Anaphase Telophase 5 1 1 5/20 x 100= 25% 1/20 x 100= 5% 1/20 x 100= 5% 1/2 0 x 100= 5% 40% 25% of the cells are in the prophase 5% of the cells are in the metaphase 5% of the cells are in the anaphase 5% of the cells are in the telophase 40% of the cells are in a stage of mitosis conclusion In addition, the given hypothesis is correct. It states that all somatic cells will go through the stages of mitosis several times throughout their lifetime and they do. It noted that the viewer will be able to see the chromosomes at a stage of mitosis and during the prophase, metaphase and anaphase stages, the viewer will be able to see the chromosomes. The final message is that the cells seen with the microscope will not be very large or clear, but it will be enough to have a general idea of what is going on. This final statement is also correct because the cells were very small and unclear, but the viewer is able to see what is happening. Overall, I learned that onion root tip cells and whitefish embryo cells constantly reproduce and produce new cells, how to calculate the percentage of cells at a stage of mitosis, and finally that the only be visible with a light microscope. Name:

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the microscope we used in the lab, but with patience you should be able to complete this activity. Access ingly access to the virtual microscope at - Click on the link that says the virtual area 1. Familiarize yourself with the microscope, run the tutorial, and examine the parts you're going to work with. A. How many targets are on the virtual microscope? B. What are the figures for each objective? 2. Look at the slide (top right) with the letter e. Follow the tutorial and use the microscope settings to focus the e on each of the targets. Draw the e exactly as it appears Scanning (4) Low (10) High (100) 3. Which letter on the microscope points to the OCULAR _____ GROBEN ADJUSTMENT _____ FINE ADJUSTMENT _____ STAGE CENTERING _____ 4 . Now look at several microscope images of common things. Go to www.biologycorner.com/microscope/ After you have viewed the pictures, go to the quiz. Make a note of the names of the copies for each letter. A.
