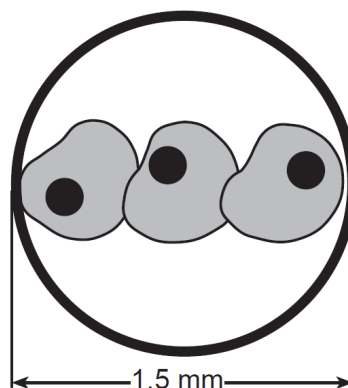


Name: _____

- An energy-rich organic compound needed by organisms is
 - water
 - salt
 - oxygen
 - glucose
- Proteins, starch, and DNA are similar in that they are all
 - organic compounds
 - parts of genes
 - made of amino acids
 - made of simple sugars
- Water is classified as an inorganic compound because it
 - does not contain carbon
 - does not contain nitrogen
 - contains hydrogen
 - contains oxygen
- The total magnification of an image formed by a compound light microscope is a result of the combined magnifications of the
 - eyepiece and diaphragm
 - objective and mirror
 - eyepiece and objective
 - low-power objective and high-power objective
- A compound microscope has four objectives labeled $4\times$, $10\times$, $43\times$, and $97\times$. Which objective, when used in combination with a $10\times$ ocular lens, provides the largest field of view?
 - $97\times$
 - $43\times$
 - $10\times$
 - $4\times$
- Which procedure would most likely provide valid results in a test to determine if drug *A* would be effective in treating cancer in white mice?
 - injecting 1 mL of drug *A* into 100 white mice with cancer
 - injecting 1 mL of drug *A* into 100 white mice with cancer and 0.5 mL of drug *X* into 100 white mice without cancer
 - injecting 1 mL of drug *A* into 100 white mice with cancer and 0.5 mL of drug *X* into another group of 100 white mice with cancer
 - injecting 1 mL of drug *A* into 100 white mice with cancer and 1 mL of distilled water into another group of 100 white mice with cancer

- Researchers performing a well-designed experiment should base their conclusions on
 - the hypothesis of the experiment
 - data from repeated trials of the experiment
 - a small sample size to insure a reliable outcome of the experiment
 - results predicted before performing the experiment
- The diagram below shows three cells in the field of view of a microscope. The diameter of the field of view is 1.5 millimeters.



What is the approximate diameter of each cell?

- $50\ \mu\text{m}$
- $250\ \mu\text{m}$
- $500\ \mu\text{m}$
- $4500\ \mu\text{m}$

Do Now 1D

9. A coverslip should be slowly lowered from a 45° angle onto a slide in order to

- A) prevent the slide from being scratched
 - B) stop the loss of water from under the coverslip
 - C) ensure that the specimen being viewed will stay alive
 - D) reduce the formation of air bubbles
-

10. When using a compound light microscope, the most common reason for staining a specimen being observed is to

- A) keep the organism from moving around
- B) make the view more colorful
- C) determine the effects of chemicals on the organism
- D) reveal details that are otherwise not easily seen