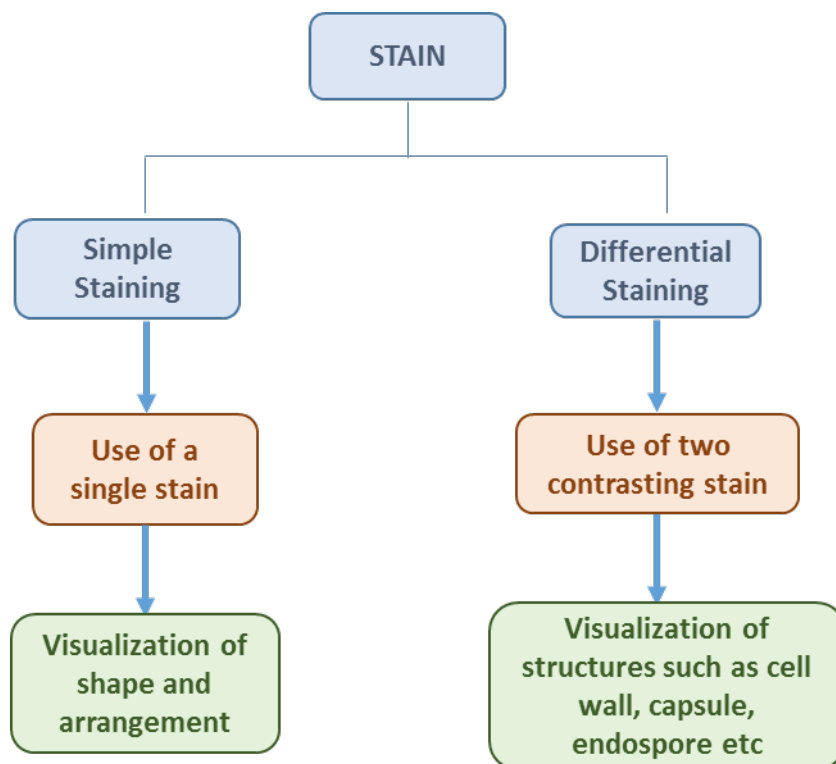


Name:

Lab 4: Simple Staining

Learning Objectives:

- To learn about principle of staining
- To learn the process of simple stain
- To prepare wet mount slides



In light microscopy, colored dyes, called stains, are used to increase contrast between the specimen and the background. Staining makes visualization of the specimen possible. This is crucial for specimens that are transparent. Bacteria, due to their size are difficult to see with a light microscope without staining. Stains contain a chromophore that gives them a specific color. In addition, the stains may bind to specific chemical charges present.

In simple staining, only one type of stain is used. This method allows the user to observe size, shape and arrangement of cells. Acidic stains are negatively charged and bind to positively charged structures in the cells. Basic stains are positively charged and bind to negatively-charged structures, such as nucleic acids. Basic stains such as Crystal violet and Methylene blue are commonly used.