Before the lesson, the teacher will recap first the plant cell and animal cell to students. After this, the teacher will introduce and explain the topic, which is the STAGES OF MITOSIS. The teacher will use 7e's lesson plan (Elicit, Engage, Explore (4 attainable Activities for grade 8 students), Explain, Elaborate, Evaluate, and Extend) / Lesson Planner / i carningCorner co

By the end of this lesson, students will understand the stages of mitosis, including prophase, metaphase, anaphase, and telophase. They will be able to identify each stage and explain the key processes that occur during cell division.

Materials and Prep

- Whiteboard and markers
- Pencil and paper for notes and drawings
- Access to a computer or tablet (optional for research)
- Visual aids (diagrams of mitosis stages)
- Preparation of a simple quiz for evaluation

Activities

• Elicit:

Start with a quick recap of plant and animal cells, asking the student to name differences and similarities. This will activate prior knowledge and lead into the topic of cell division.

• Engage:

Watch a short video clip that shows the process of mitosis in action. Discuss what was observed and how it relates to the cell structures previously learned.

• Explore:

Conduct a hands-on activity where the student uses colored paper to create a model of each stage of mitosis. This will help visualize the changes that occur during cell division.

• Explain:

Using the whiteboard, draw and label the stages of mitosis. Encourage the student to take notes and ask questions about each stage as it is explained.

Talking Points

- "Mitosis is essential for growth and repair in living organisms. Can you think of a time when your body needed to repair itself?"
- "During prophase, the chromatin condenses into visible chromosomes. Why do you think it's important for chromosomes to be visible during this process?"
- "In metaphase, chromosomes line up in the center of the cell. What might happen if they didn't line up properly?"
- "Anaphase is when the sister chromatids are pulled apart. Why do you think this step is crucial for the next phase?"
- "Finally, in telophase, the cell begins to split into two. How does this ensure that each new cell has the right amount of DNA?"
- "Mitosis is a carefully regulated process. What could happen if something goes wrong during mitosis?"
- "After mitosis, the cell enters interphase again. Why do you think cells need time between divisions?"