

Worksheet for life cycles

You will need to know life cycles. They are an important and amazing mechanism for adaptation and evolution of organisms. They represent the incredible diversity of strategies that exist for organisms to reproduce sexually. They are the innovation of eukaryotes. What you don't get done in lab, do ASAP! Pay attention to the bolded words. Have fun!!

Answer/draw/write the following in your lab notebook, or on a separate sheet of paper you can keep. *Diagrams* are the best way to learn this!

I. Meiosis and Mitosis

Meiosis (I and II). DRAW IT

Mitosis. DRAW IT

What are the major differences between **mitosis** and **meiosis**?

What does Mitosis result in?

What does Meiosis result in?

What is required for Meiosis that is not required for mitosis?

Which is used for **asexual reproduction**?

Which is used for general repair and growth?

Which is used sexual reproduction?

What does **haploid** (n) mean?

Diploid ($2n$)?

Polyloid?

What is a **gamete**?

A **spore**?

A **zygote**?

What is **syngamy**? **Fertilization**?

II. Life cycles

Play the sporic life cycle 'game'. Now do it again for the **gametic** and the **zygotic**. What are the main differences?

DRAW the generic **sporic** life cycles: Be sure and note where meiosis and mitosis occur, where gametes are formed, and if/where spores are involved. Label n , $2n$.

What is a **spore and how does it differ from a gamete? This is a *key* question!

What is **alternation of generations**?

What is **isomorphic** alternation of generations?

What is **heteromorphic** alternation of generations?