

Name: \_\_\_\_\_

Blk: \_\_\_\_\_ Date: \_\_\_\_\_

## **Science 9** **Notes on Sexual Reproduction**

Sexual reproduction brings non-identical gametes together to form new organism - it occurs in \_\_\_\_ stages:

1. \_\_\_\_\_ - the process by which gametes are brought together at same place and same time
2. \_\_\_\_\_ - process by which egg and sperm join to form a new organism
3. \_\_\_\_\_ - the process by which an organism develops as an embryo

### **Two Methods of Fertilization:**

1. \_\_\_\_\_

2. \_\_\_\_\_

In order for either of these methods to produce a successfully developing embryo, certain conditions must be met:

- Embryo must have enough \_\_\_\_\_.
- \_\_\_\_\_ must not be too cold or too hot.
- There must be enough \_\_\_\_\_ so that embryo does not dry out.
- Embryo must be \_\_\_\_\_ from predators and items in environment that can potentially harm it.

### **External Fertilization:**

In external fertilization, sperm and egg join outside parents

#### **Advantages:**

Very little \_\_\_\_\_ required to mate

Large numbers of \_\_\_\_\_ produced

Offspring can be spread widely in the environment

-> \_\_\_\_\_ between each other and parents

#### **Disadvantages:**

Many gametes will not \_\_\_\_\_

Many eggs will not be \_\_\_\_\_

Offspring are often not \_\_\_\_\_ by parents, so many of them die

**Internal Fertilization:**

In internal fertilization, sperm and egg join \_\_\_\_\_ parents, embryo is nourished inside \_\_\_\_\_

**Advantages:**

Embryo \_\_\_\_\_ from predators  
Offspring more likely to survive, as many species will \_\_\_\_\_ them while they mature

**Disadvantages:**

Much more \_\_\_\_\_ required to find mate  
\_\_\_\_\_ zygotes produced, resulting in less offspring  
More \_\_\_\_\_ required to raise and care for offspring

**Pollination:**

Most plants transfer male gametes as \_\_\_\_\_. Pollen can be carried by wind or other organisms.

