

# Course work on reproduction differences between bacteria grasshopper fish and bea...

[Family](#), [Parents](#)



Write a 200 to 300 word response explaining how the physiological process of reproduction differs among the following organisms: Bacteria, Grasshopper, Fish, and Bear.

Among the four groups given, bacteria are the only animals that are capable of reproducing either asexually or sexually (Mader, 2004). This means that the reproduction process can either involve two parents or one parent. When bacteria reproduce asexually they produce offspring identical to the parent in a process called binary fission. The parent bacterium splits into two daughter cells. In sexual reproduction, the offspring is a product of two bacteria (Mader, 2004).

In the case of grasshoppers, reproduction is strictly sexual. Male grasshoppers fertilize their female's eggs using their sperm. The reproductive organ of the male is called an aedeagus, which it uses to introduce the sperm into the female's vagina (Mader, 2004). The female grasshopper then lays her fertilized eggs and hides them two inches underground where they are incubated. She sprays them with a sticky substance which protects the eggs by forming a pod (Neil & Reece, 2002).

Fish are the only ones among these four that are oviparous. This means that female fish lay eggs before they are fertilized by the male. The male fertilizes the already laid eggs and the eggs hatch once they reach maturity. The length of time depends on the species of fish (Neil & Reece, 2002).

Bears are mammals. They mate in the summer, when males mate with females who are on heat. The male sperms fertilize eggs found in the female's uterus and these eggs develop into cubs which are born the

following January (Neil & Reece, 2002). Bears are unique in that they only give birth at a specific time, and when conception takes place before that time, and then the development of the fertilized eggs will halt for some time to make sure the female only gives birth when she is safe inside her den for the winter (Neil & Reece, 2002).

## **References**

Mader, S. S. (2004). *Biology*. 8th ed. Boston, MA: McGraw-Hill.

Neil, A. C. & Reece, J. B. *Biology*. (2002) 6th ed. San Francisco, CA: Benjamin Cummings.