Zoo Matchmaker
Extension 3 – Tiger Touch

Students who completed the *Zoo Matchmaker* program simulated selective breeding of four generations of captive tigers with the goal of maintaining the maximum amount of genetic diversity within the population of captive tigers. Ultimately the goal for zoo keepers and breeders could be to repopulate the wild with tigers that were bred in captivity. Maximizing genetic diversity would help to insure that tigers released to the wild would have the diversity to survive the unknown rigors of the jungle.

Several web sites are devoted to helping the public and zoo professionals maintain tiger populations in zoos and in the wild. Two of the best are www.5tigers.org and www.tigertouch.org . They provide information about tiger ecology, behavior, locations, etc.

Procedure

Go to www.5tigers.org , a web site with information about tigers, species and subspecies and the Species Survival Plan (SSP) for tigers. Read the information on the web site.

1. How would a zoo professional use a SSP to maximize diversity?
2. How does the zoo professional's work compare to your Zoo Matchmaker activity?
3. How are their decisions similar to yours? What other factors might a zoo professional need to consider before making a breeding recommendation?

Go to www.science.mcmaster.ca/biology/CBCN/genetics/mac_smpop4.htm (upper level students only) for a description of some of the causes of loss of genetic diversity.

1. What is the effect of inbreeding on diversity?
2. How does inbreeding effect the rate of recessive alleles?
3. Define population bottlenecks. What might cause this to occur in wild tiger populations?