

**Investigation Booklet — ANSWERS**  
**Exploring the Role of Isolated Populations in Inbreeding**

<b>EXAMPLES OF INBREEDING IN WILD AND DOMESTIC ANIMALS</b>		
	Why has inbreeding occurred?	Describe the related health problems
Domestic Dogs	<i>Dogs have been selectively bred for desired traits like herding, fetching &amp; tracking skills.</i>	<i>Hip, elbow, heart, and eye problems.</i>
Florida Panthers	<i>Overhunting and habitat loss has led to a population of 70 panthers in South Florida.</i>	<i>Heart defects and abnormal sperm.</i>
Thoroughbred Horses	<i>Horses have been inbred for speed.</i>	<i>Broken bones and reproductive problems.</i>
<b>EXAMPLES OF INBREEDING IN PEOPLE</b>		
	Why has inbreeding occurred?	Describe the related health problems
Hapsburg Family	<i>In order to keep pure bloodlines and concentrate power first cousins, uncles, and nieces were commonly married.</i>	<i>The Hapsburg Jaw – where the lower jaw grows longer than the upper jaw.</i>
Amish People	<i>This group was founded by a very small group of people, which led to the marriage of closely related people.</i>	<i>Maple Syrup Disease, which can cause seizures, comas, and death.</i>

1. Why is it important for individuals from different small populations to be able to breed with one another?

*If individuals from small populations are not able to breed with individuals from outside the population, eventually the population may become inbred, which increases the likelihood that undesirable traits will occur.*