

## ZooPro Adventure Program

### Amazing Adaptations

#### Main Program Topics:

How adaptations of specific species enhance their survival in their natural environments.

Distinction between physical and behavioral adaptations.

Convergent evolution: Similar structures and traits, even behaviors in animals not closely related and/or greatly separated geographically.

Camouflage, warning colors and mimicry.

#### Relation to Virginia SOLs:

1.5 (body coverings, body shape, appendages, methods of movement)

1.7 (animal behaviors)

2.5 (interdependence with living and nonliving surroundings)

2.7 (behavior of living things, camouflage)

3.4 (behavioral and physical adaptations; camouflage, mimicry, instinct)

4.5 (behavioral and structural adaptations; niches)

#### Special Notes Regarding This Program:

This would be a particularly good choice for a multigrade elementary school group.

#### Animal Species Typically Used:

Chinchilla	<i>Chinchilla lanigera</i>	Adaptation to cold, treeless environment; movement; sight, hearing, and smell
Eastern Hognose	<i>Heterodon platyrhinos</i>	Behavior when threatened; prey capture; adaptations specific to snakes such as Jacobson's organ
 Emerald Tree Boa	<i>Corallus caninus</i>	Convergent evolution; adaptation of snake form and behavior to arboreal life
 Green Tree Python	<i>Morelia viridis</i>	Convergent evolution; camouflage relative to habitat background

 Fennec Fox	<i>Vulpes zerda</i>	Adaptation to desert habitat, including diet; sight, hearing and smell; camouflage in native habitat
Fire Salamander	<i>Salamandra salamandra</i>	Convergent evolution; warning color; environments accessible to amphibians
Spotted Salamander	<i>Ambystoma maculatum</i>	Convergent evolution; warning color; environments accessible to amphibians
Screech Owl	<i>Otus asio</i>	Adaptations to nocturnal activity; sight and hearing; camouflage; specialized plumage
 Striped Skunk	<i>Mephitis mephitis</i>	Warning colors and behavior; projectile scent emission; generalist, adaptation to various habitats
Tomato Frog	<i>Dyscophus antongilli</i>	Warning colors vs. mimicry; style of predation; difference between sexes

**Other Materials Typically Used:**

World map to highlight geographical separation of some species compared.

Various pictures/graphics to compare and contrast other species, other sex of the same species to specimens shown.

Possibly some pictures to shown other striking examples of warning color, mimicry, or disruptive coloration.