

# Eyes and Eyelids



**Round**



**Vertical-Elliptic**



**Horizontal-Elliptic**

Most **lizards** and **skinks** have *round* pupils and moveable (closing) eyelids. The Burrowing skink has a unique clear eyelid “window” in its lower lid. When it closes its eyes it can still see through the bottom lid, yet keep out dirt and debris.

Nocturnal **geckos** have *vertical-elliptic* pupils, while diurnal (daytime feeder) geckos have *round* pupils. Most geckos do not have moveable eyelids. Their eyes are always open. A transparent scale called a spectacle protects each eye.

**Snakes’** pupils are *round* or *vertical-elliptic*. They have no eyelids. They also have spectacles. The pupil shape of a snake’s eye is not an indication of the presence of poison.

Most **frog** families have *horizontal-elliptic* pupils, the exceptions being the Burrowing and Spadefoot toad families, which have *vertical-elliptic* pupils. Frogs’ bottom eyelids move upward and cover the entire pupil area.

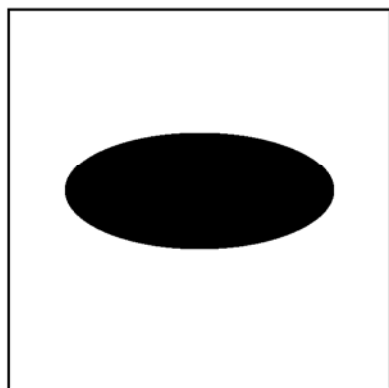
**Crocodylians** have *vertical-elliptic* pupils with three moveable eyelids per eye: a semi-transparent lid, the upper lid, and the lower lid.

For an “eye-opening” experience, complete these two eye-action simulations.

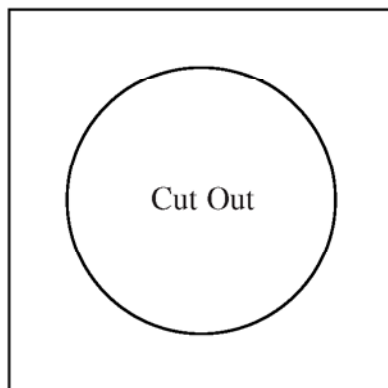
## Frog Eyelid Action

1. Cut out the Pupil and Eye squares. Cut out the Eye’s center circle; discard circle.
2. Cut out the Eyelid’s paddle shape.
3. Place the Eye square directly on top of the Pupil square. Tape the left, top, and right sides together.
4. Insert the Eyelid’s flat end into the untaped opening. Slide the Eyelid upward to simulate a frog closing its eyelid.

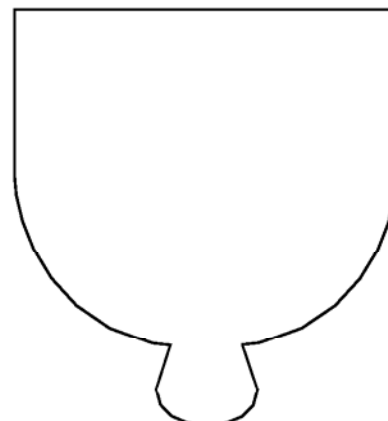
**Pupil**



**Eye**



**Eyelid**



# Crocodilian Three-way Eyelid Action

## Directions

1. Cut out the five eye parts. Cut out the Semi-Transparent Lid's and Eye's center sections; discard cut-out sections.
2. Using a small piece of transparent plastic wrap, cover the Semi-Transparent Lid's open area; tape the wrap's edges to this section's frame.
3. Place the Semi-Transparent Lid on top of the Pupil's rectangle so that the pupil can be seen through the transparent wrap.
4. Place the Top and Bottom lids on top of the Semi-Transparent Lid.
5. Place the Eye rectangle directly on top of the layered Lid's rectangle. Tape the right side-edges only. Carefully manipulate the three lids to demonstrate a crocodile's eyelid's three-way movement (Semi-Transparent lid—Top lid—Bottom lid).

