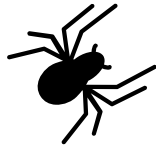
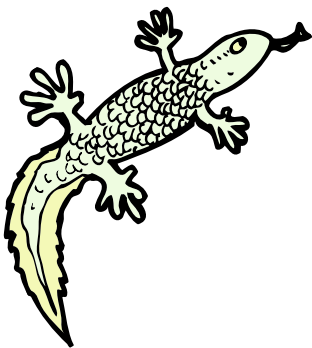




Endangered Species



OF WILLIAMSON COUNTY



**What can you do to help?
Activity Packet**

Animals need Food, Water, and Shelter to live. If one of those things is lost the animal species might suffer.

Threatened

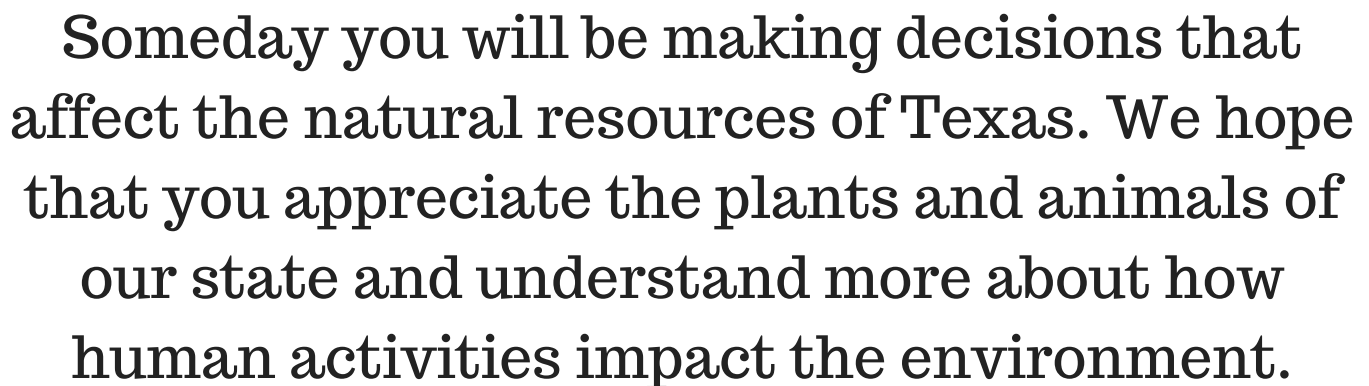
any species that is likely to become an endangered species within the foreseeable future

Endangered

any species that is in danger of extinction

Extinct

any species that has no living members



Someday you will be making decisions that affect the natural resources of Texas. We hope that you appreciate the plants and animals of our state and understand more about how human activities impact the environment.

What Endangered Species can you find in Williamson County?

Georgetown
Salamander



Lives in Creeks
and Rivers

Golden
Cheek
Warbler



Lives in Tall Juniper
and Hardwood Trees

Monarch
Butterfly



Lives in Open Fields
and Meadows with
Milkweed

Black Capped
Vireo



Lives in Shrubland

Bonecave
Harvestman



Lives in Caves

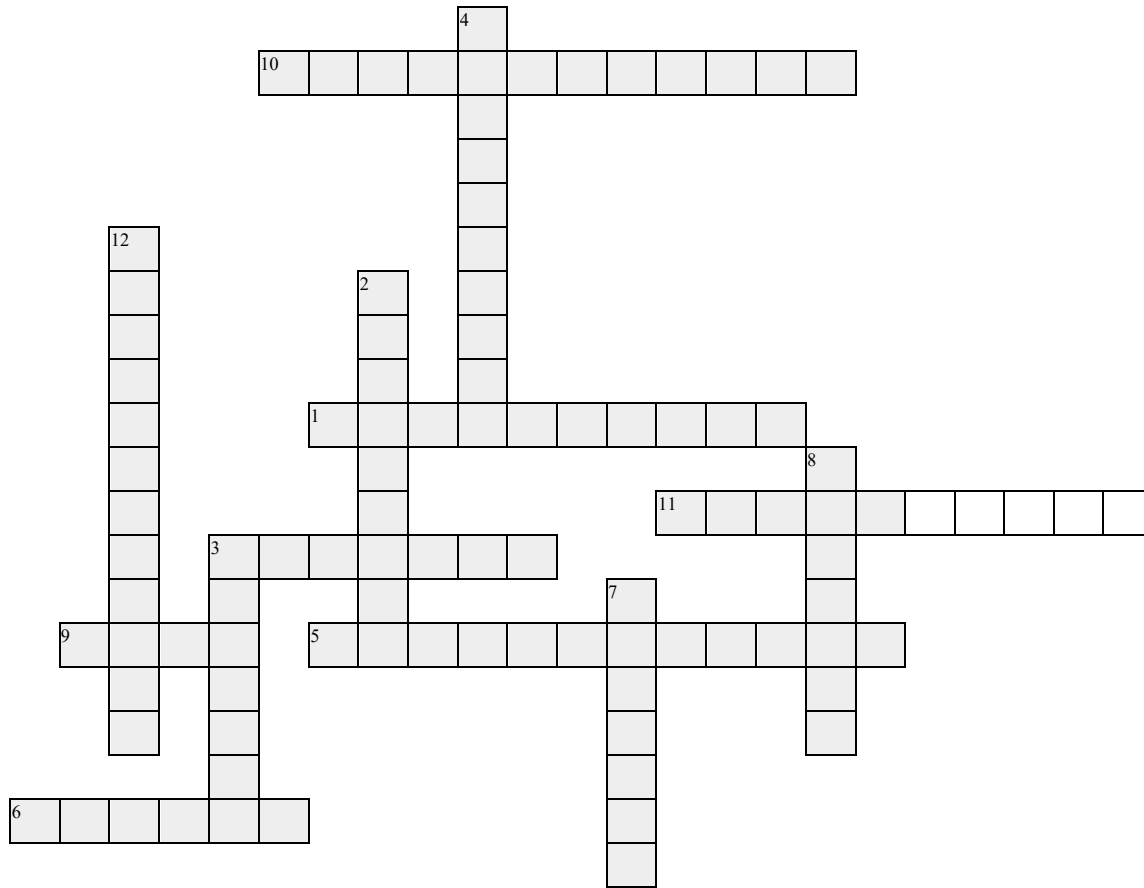
Coffin Cave
Mold Beetle



Lives in Caves

Animal Conservation

Please complete the crossword puzzle below.



VERTEBRATE INVERTEBRATE AMPHIBIAN BIRD BIODIVERSITY CONSERVATION HABITAT EXTINCT
ENDANGERED THREATENED REPTILE INSECT ENDEMIC

Across:

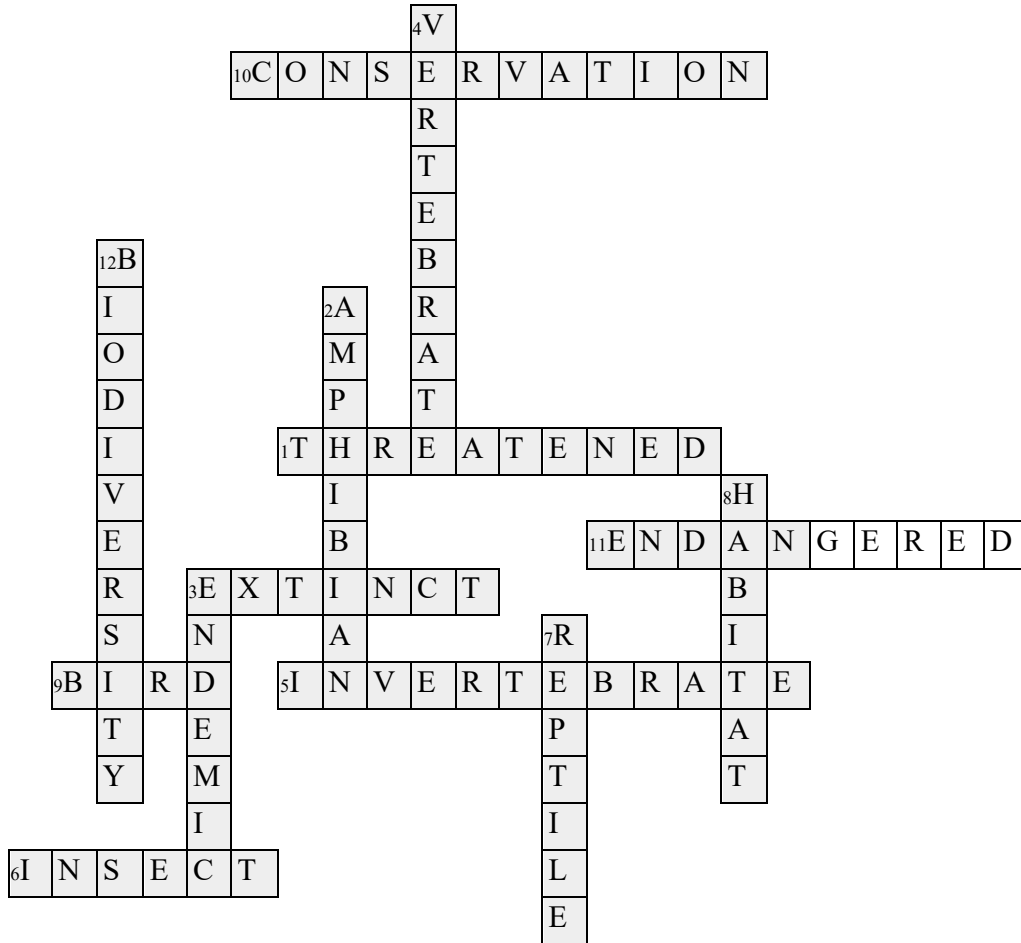
Down:

- | | |
|---|--|
| <p>1. At risk of becoming endangered.
 3. A species that no longer exists is considered to be...?
 5. An animal that doesn't have a backbone or vertebrae is called an...?
 6. Small animal with many legs.
 9. A warm-blooded, egg-laying, feathered animal (like a chicken or crow).
 10. The protection and restoration of animals and habitats.
 11. A species at risk of extinction.</p> | <p>2. Frogs and salamanders are what kind of animal?
 3. When an animal is found only in one location.
 4. Animal with a backbone or vertebrae is called a...?
 7. Snakes, crocodiles, turtles, and dinosaurs are what type of animal?
 8. The environment where an organism lives.
 12. Number and variety of species found within an area.</p> |
|---|--|

Name: _____

Animal Conservation KEY

Please complete the crossword puzzle below.



Across:

- 1. At risk of becoming endangered. (THREATENED)
- 3. No longer existing or living. (EXTINCT)
- 5. Animal without a backbone or spinal column (insect, clam). (INVERTEBRATE)
- 6. Small invertebrate with many legs (mosquito, water bug). (INSECT)
- 9. Warm-blooded, egg-laying, feathered vertebrate (chicken, crow). (BIRD)
- 10. The protection and restoration of wildlife and natural resources. (CONSERVATION)
- 11. A species at risk of extinction. (ENDANGERED)

Down:

- 2. Cold-blooded, smooth-skinned vertebrate; can live both on land and in water (frog, salamander). (AMPHIBIAN)
- 3. Found only in one location. (ENDEMIC)
- 4. Animal with a backbone or spinal column. (VERTEBRATE)
- 7. A cold-blooded, egg-laying vertebrate with scales or horny plates (snake, crocodile, turtle, dinosaur). (REPTILE)
- 8. The environment where an organism lives. (HABITAT)
- 12. Number and variety of organisms found within a region. (BIODIVERSITY)

Animals of Williamson County

A	B	S	E	I	C	E	P	S	A	N	E	W	W
E	T	R	F	O	O	D	V	E	B	R	B	C	R
A	L	L	I	G	A	T	O	R	E	G	H	C	N
S	V	C	I	T	A	G	T	O	E	Y	A	A	H
A	C	A	V	I	R	E	O	A	T	E	B	V	N
L	T	E	R	E	E	E	N	G	L	T	I	E	W
A	T	H	R	E	A	T	E	N	E	D	T	N	O
M	I	V	O	E	L	I	D	A	H	S	A	E	T
A	F	N	D	L	E	B	A	C	E	C	T	E	E
N	E	R	E	Y	L	F	R	E	T	T	U	B	G
D	O	F	R	E	S	H	W	A	T	E	R	E	R
E	X	T	I	N	C	T	E	T	W	T	C	O	O
R	N	R	E	N	D	A	N	G	E	R	E	D	E
W	C	O	N	S	E	R	V	A	T	I	O	N	G

CAVE
 WARBLER
 ALLIGATOR
 EXTINCT
 BUTTERFLY
 BEETLE
 CONSERVATION
 HABITAT
 ENDANGERED
 SPECIES
 GEORGETOWN
 SALAMANDER
 FRESHWATER
 THREATENED
 VIREO
 FOOD

Word Search Key

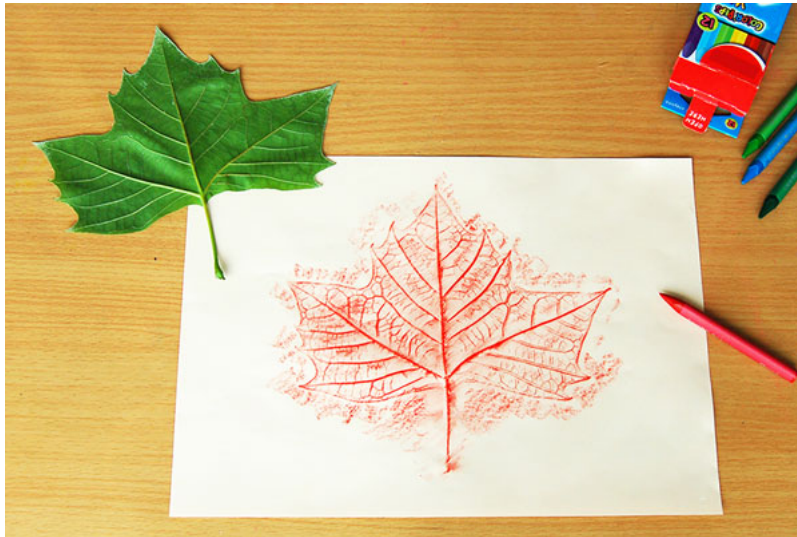
A	B	S	E	I	C	E	P	S	A	N	E	W	W
E	T	R	F	O	O	D	V	E	B	R	B	C	R
A	L	L	I	G	A	T	O	R	E	G	H	C	N
S	V	C	I	T	A	G	T	O	E	Y	A	A	H
A	C	A	V	I	R	E	O	A	T	E	B	V	N
L	T	E	R	E	E	E	N	G	L	T	I	E	W
A	T	H	R	E	A	T	E	N	E	D	T	N	O
M	I	V	O	E	L	I	D	A	H	S	A	E	T
A	F	N	D	L	E	B	A	C	E	C	T	E	E
N	E	R	E	Y	L	F	R	E	T	T	U	B	G
D	O	F	R	E	S	H	W	A	T	E	R	E	R
E	X	T	I	N	C	T	E	T	W	T	C	O	O
R	N	R	E	N	D	A	N	G	E	R	E	D	E
W	C	O	N	S	E	R	V	A	T	I	O	N	G

Leaf Rubbing

Materials:

- Interesting leaves
- Crayons
- Paper

1. Put a leaf upside down on the table.
2. Place a piece of paper over the leaf.
3. While holding the paper and leaf in place, use the side of a peeled crayon to rub over the leaf.
4. Make sure that you color over the entire leaf. Rubbing firmly all over the leaf will show the veins and the outline of the leaf
5. A dark crayon will produce a clearer print of the leaf.
6. Do another leaf with different color crayon.



Golden-Cheeked Warbler



Golden-Cheeked Warbler

General Information: The golden-cheeked warbler is a migratory songbird that is easily recognizable by its bright yellow cheeks. This bird is only about 4.7 inches tall.

Habitat: Golden-cheeked warblers mainly live in tall, dense Ashe Juniper and hardwood trees.

Food: Golden-cheeked warblers eat insects like caterpillars, spiders, and beetles.

Range: Golden-cheeked warblers live in Texas (from February to July) and migrate south into Mexico (from July to January).

Status and Threats: The golden-cheeked warbler is endangered due to loss of habitat. Many forests are cut down to make way for buildings, highways, and agricultural fields (like food and livestock). This directly removes habitat and prevents golden-cheeked warblers from nesting and breeding in the areas.

Want to hear the bird song: <https://www.youtube.com/watch?v=QpkAei-00EA>

Materials Needed:

Black and yellow construction paper

Glue

String or elastic

Black marker

Instructions

1. First cut a circle out of black construction paper
2. Then cut two large teardrop shapes out of yellow paper. Glue the teardrops to each side of the black circle.
3. Draw a line through the yellow teardrop
4. Cut four long thin teardrop shapes out of yellow or black then use the opposite color to draw vein-like lines
5. Make a small cone beak. Cut slits on the wide part of the cone and glue the pieces to the base (black circle)
6. Then cut eyes out of teardrop shapes. Attach the smile and staple a string or elastic to either side of the mask. Make sure you cut the string so that it fits.



Black-Capped Vireo

General Information: The black-capped vireo is a migratory songbird that is named after the black helmet-like marking encircling its head. It is only about 4.5 inches tall.

Habitat: Black-capped vireos live in shrub land close to the ground that is shaded by larger trees.

Food: Black-capped vireos normally eat small insects and spiders.

Range: Black-capped vireos live in Oklahoma, Texas, and northern Mexico.

Status and Threats: The black-capped vireo is also endangered is endangered due to loss of habitat. Many forests are cut down to make way for buildings, highways, and agricultural fields (like food and livestock). This directly removes habitat and prevents black-capped vireo from nesting and breeding in the areas.

Want to hear the bird song: https://www.youtube.com/watch?v=te_AAG7n6wM

Materials Needed:

- Black and white construction paper
- Glue
- String or elastic

Instructions

1. First cut a circle out of black construction paper
2. Then cut two large tear drop shapes out of yellow paper. Glue the tear drops to each side of the black circle.
3. Draw a line through the yellow teardrop
4. Cut four long thin teardrop shapes out of yellow or black then use the opposite color to draw vein-like lines
5. Make a small cone beak. Cut slits on the wide part of the cone and glue the pieces to the base (black circle)
6. Then cut eyes out of tear drop shapes, attach the smile and staple a string or elastic to either side of the mask make sure you cut the string so that it fits.



Bone Cave Harvestman

Bone Cave Harvestman

General Information: The bone cave harvestman is a small, spider-like, yellowish-brown invertebrate (less than one centimeter tall) that lives in caves in Williamson County. Because these small critters have lived in dark caves for so long, they don't need to use their eyes like humans do. Instead, they use their sense of touch to find food and move around the dark cave.

Habitat: The bone cave harvestman can be found in caves within Williamson County. Our county has over 200 underground caves; and there are still more to be discovered! The caves are made of limestone rock and are very dark.

Food: The bone cave harvestman eats other small insects it can find inside of its cave.

Range: Bone cave harvestmen are found only within central Texas.

Status and Threats: This species is endangered because very few are still alive. Because the species needs good cave habitat, it is directly affected by pollution, changes in water quality, and changes in temperature. Sometimes caves are destroyed when humans build buildings and highways.





Coffin Cave Mold Beetle

General Information: The coffin cave mold beetle is even smaller than the bone cave harvestman. In fact, you could probably fit more than six of these critters on a single penny! This beetle is brown and has six legs. It is also blind and uses its long antennae to feel its way around the cave.

Habitat: Like the bone cave harvestman, these beetles only live in the limestone caves in Williamson County.

Food: The coffin cave mold beetle eats very small invertebrates within the cave.

Range: These beetles are only found in caves in

Williamson County.

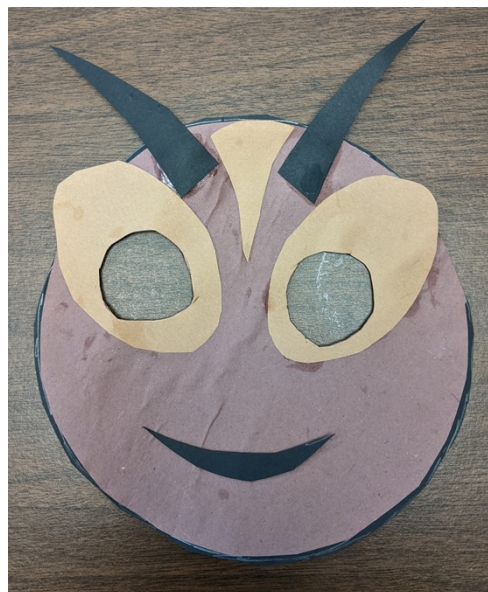
Status and Threats: The coffin cave mold beetle is endangered and is negatively affected by human construction, pollution, changes in water quality, and changes in temperature.

Materials Needed:

- Brown two tones, Black construction paper
- Sting or elastic
- Glue

Instructions

1. First cut a circle out of black construction paper and a slightly smaller brown circle
2. Then cut two large tear drop shapes out of brown paper. Glue the tear drops to each side of the black circle.
3. Then cut two thin tapered strips for the antenna from the black paper as well as a black smile. Cut a small triangle of a different brown color.
4. Glue the antenna on the circle when placed and glue the small brown triangle in between the antenna.
5. Then cut eyes out of tear drop shapes, attach the smile, and staple a string or elastic to either side of the mask. Make sure you cut the string so that it fits.



Georgetown Salamander

General Information: The Georgetown salamander is a small amphibian (½ to 3 inches long) with soft, smooth skin. Unlike most salamanders, this salamander lives only in the water and never on land.

Habitat: The Georgetown salamander lives in slow-moving springs and streams.

Food: This salamander eats very small invertebrates in the stream water.

Range: How do you think the Georgetown salamander got its name? This species is only found in the springs and streams of Georgetown, Texas.

Status and Threats: The Georgetown salamander is threatened- it is in danger of becoming endangered. Because they only live-in small streams and springs, they are very sensitive to changes in water quality and pollution.



Materials Needed:

- Brown construction paper
- Glue
- Stapler

Instructions

1. First cut three strips of the same size from brown paper
2. Then staple them to each other so that it makes a circle that fits your head
3. Now cut large thin tear drops
4. Cut fringe on each of the tear drops then attach them to either side of the circular band



Did you know that Alligators used to live in San Gabriel?

The American alligator (*Alligator mississippiensis*) receives its name from a corruption of the Spanish "el lagarto," or lizard. The current spelling dates back to at least 1699.

In the 1800's there were Alligators in the San Gabriel River. Alligators are indigenous to the Williamson County area however much like the buffalo of the plains the Alligators were killed by settlers for sport when the Santa Fe Expedition in 1841 came through the area they often spent afternoons shooting the animals for fun and protection. Pictured is an Alligator Skull found in San Gabriel River and is part of The Williamson Museum Collection.



One of the last records of an alligator on the San Gabriel was a large one trapped in Blue Hole at Georgetown around 1897. Jeff Ake, a local fisherman, and ten-year old Bob Gaines knew that an alligator was in Blue Hole. Gaines, who was interviewed in 1973, reported that Ake had two hooks about a foot long welded together. He baited the hooks with a soft-shelled turtle and attached them to a chain and rope, which he secured to a large tree. The alligator took the bait, and was caught, but a team of horses was required to pull the alligator from the water (Scarborough, 1973).



Make Your Own Alligator!

Materials

- Plain paper for template
- Template
- Pencil
- Scissors
- One piece of color cardstock paper (green – or whatever you please)
- Two googly eyes
- Plain white glue
- White paint
- Fine paintbrush

Directions

1. Cut out the template with scissors.
2. Fold the color cardstock in half lengthwise and draw around the template using a pencil. Make sure the gator's "back" is positioned along the fold.
3. Snip around the shape of the alligator's body, as drawn.
4. Along the back, create a spiky "spine" effect by drawing six evenly spaced pencil lines at a 45-degree angle to the ridge of the spine. Snip along the lines, through the fold. (Smaller scissors give better control.)
5. Open the alligator flat. The cuts will have created six triangular shapes. Fold these back on themselves, exposing the triangle-shaped holes, and press flat with your finger.
6. Fold the gator back in half again, so the now the spines stand up all the way along its back.
7. Finish off by gluing a googly eye to each side of the gator's face. Use the paintbrush to stroke on his teeth with white paint (sketch it with pencil, first, if you'd rather).

