

# **Snake Community Action Network**

## **Basic Snakebite Awareness Training Script for Kids**

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This basic training script can be used to guide school children up through Grade 6 through the essentials of snakes and snakebite prevention. It is to be used with the lessons called “Understanding Snakes for Kids”, “Three Bad Guys and a Superhero”, and “Hide and Seek with Snakes”.

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**Introduction (essential)** - Hello everyone, and thanks for being here today. My name is \_\_\_\_\_ and I am a trainer from \_\_\_\_\_. I and my group are partnering with an organization known as the Snake Community Action Network or SCAN to bring you this Snake Awareness and Snakebite Prevention training program. Our goal is to educate as many people in our communities as possible about snakes and snakebite to save lives. We are glad to have this opportunity to train you as school children, and hopefully you can take home some of the messages you learn today and share them with your parents!

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**Why are we here? (essential)** - We are here because we live in a place where venomous snakes are common, and where there is a chance we could be bitten by one if we are not careful. We can encounter snakes in our homes, while farming and herding, and while walking from one place to another. Many of our people live a long way from a hospital or clinic, and it costs a lot of money to get transportation to one of these facilities. Treatment for a snakebite is expensive and sometimes there is no antivenom available.

Because of these things, we sometimes rely on traditional healing methods, but these are not effective against a venomous snakebite - they cannot destroy (neutralize) the venom once it is inside the body.

Because of all these things, we need to practice methods that prevent a snakebite from ever occurring. We must learn to identify dangerous snakes, practice good habits to avoid and prevent snakebite at home, at play, and at work, and know what to do in case of a snakebite - first aid). Our goal is to save lives by giving you practical suggestions to help you develop good habits that will reduce the risk of snakebite and keep you safe.

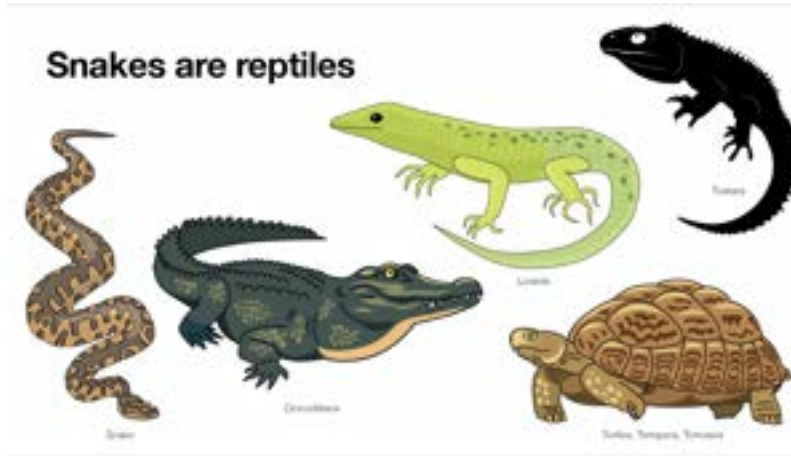
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### **Important characteristics and behaviors of snakes (essential)**

The slides shown in this section are from the “Understanding Snakes for Kids” lesson

We want to start by helping you understand what a snake is and some of its behaviors. We are just going to give you a basic overview and if some of you are interested there is a lot more to learn about snakes as you get older.

First of all, snakes are reptiles. Other animals from East Africa that are reptiles include lizards, turtles, and crocodiles.



All reptiles share some of the characteristics we will talk about here in common. For example, they all have bones, including a backbone or spinal column. They have many fine bones extending from their backbone that protect the organs on the inside.



Next, snakes are **covered with scales made out of the same material as your fingernails** (keratin) - they can appear smooth or rough (keeled). A keeled scale has a ridge or raised line down the center of the scale (point this out to them on the poster).

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**Snakes are covered with scales made from the same material as your fingernails!**



Smooth



Keeled (ridge down center)

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As snakes grow and get larger, they eventually outgrow their existing skin and have to grow a larger one. As a result, snakes **regularly shed their old skin and scales** when their body outgrows them **[NOTE: if you have been provided with a snake skin to demonstrate, carefully take it out and ask the participants to touch it gently.]**

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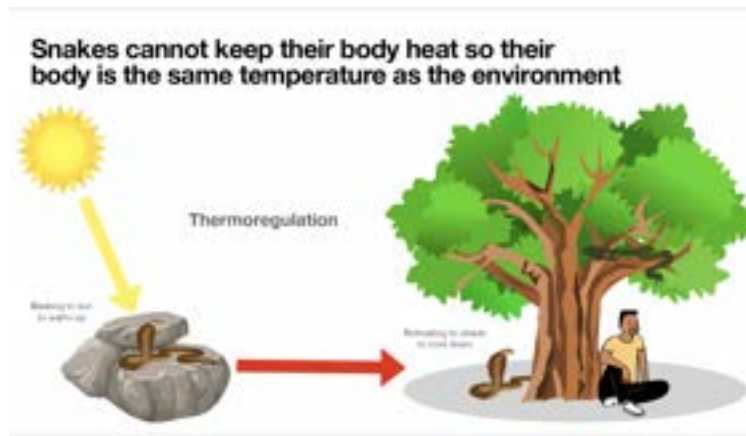
Snakes shed their old skins (scales) as they outgrow them



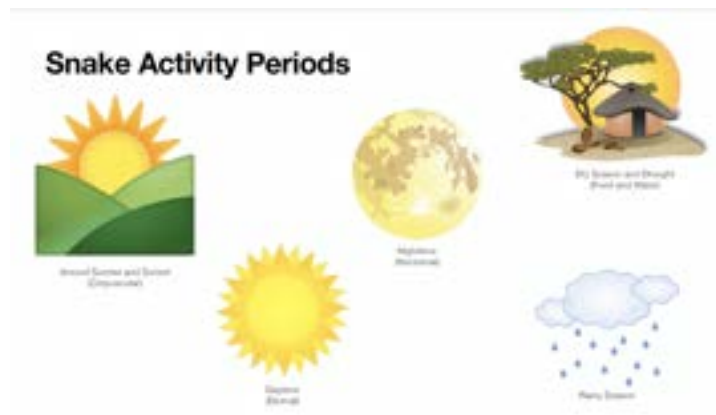
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What about their body temperature? People maintain a body temperature around 37 degrees Celsius on the inside.. But, snakes have to **move back and forth from sun to shade** to change their body temperature - their body is the same temperature as the

environment outside their body. This does not mean they are “cold blooded” - a snake basking in the sun can have very warm blood from absorbing the sun’s rays.



Snakes can be **active day or night** and the **shape of their pupils** indicates which (round = day; vertical = night - show second poster). Snakes are also more active during the rainy season when they like to mate. However, during very hot and dry periods, snakes can move toward human houses in search of food, water, or shade from the hot sun.



### Snakes have eyes that match their activity period



Round Pupils  
(Active Daytime)



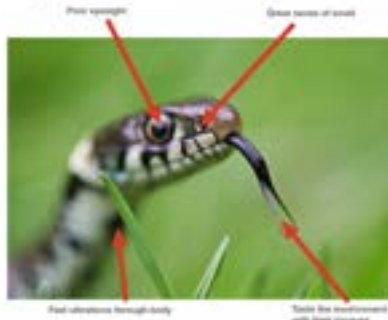
Vertical Pupils  
(Active Nighttime)



Teardrop Pupils  
(Good for life in trees; can see more of surroundings)

Snakes have good senses, although some are better than others. Most snakes have **poor eyesight** and rely on other senses more strongly. Snakes have a **good sense of smell and taste** - they use their forked tongue to **pick up chemical cues** from their environment which are interpreted by an organ in the roof of their mouth. Some snakes, like pythons, have thermal sensors that allow them to detect the heat of their prey when there is little to no light.

### Snakes have great senses



Snakes can make use of a **variety of habitats**, including trees (arboreal), water (aquatic), on the ground (terrestrial), and under the ground (fossorial).

## Snakes live in different habitats



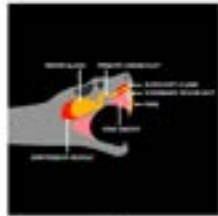
Snakes eat a variety of animals depending on where they live and what is available. Some snakes are **generalists** meaning they eat a variety of foods (rodents, birds, frogs, other snakes, etc). Other snakes are **specialists** that focus on one type of food, such as egg eaters.

## What do snakes eat?



Snakes use different methods to capture their prey. Some snakes just chase after their prey until they catch and swallow it. Some snakes have chemicals that we call VENOM to kill by injecting it into the prey. Other snakes, like pythons, wrap their bodies around the prey and squeeze it. This is called constriction. Constriction does not crush the bones as commonly believed, but actually suffocates the animal (animal can't breathe).

### How do snakes eat?



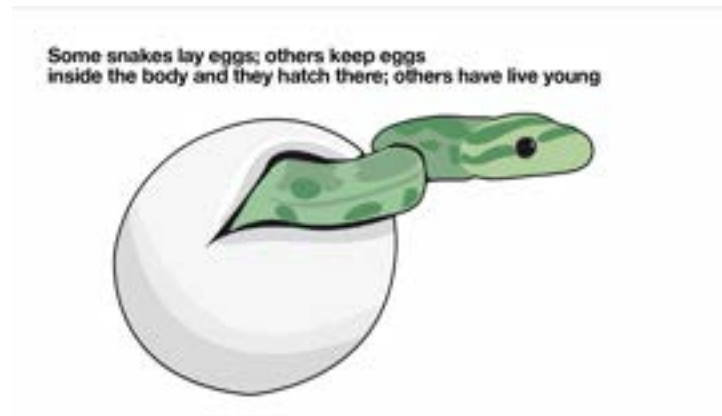
There are many types of predators that will capture and eat snakes, including many large birds, other snakes, crocodiles, monitor lizards, and mammals like the mongoose.

### What eats snakes?



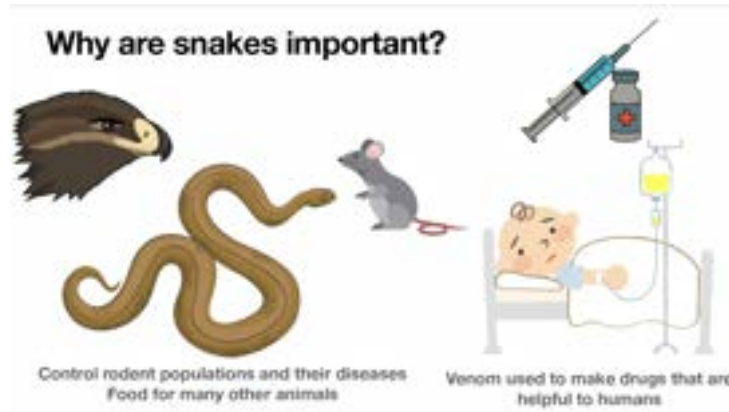


Snakes have babies in a variety of different ways too. Some lay eggs which hatch when they are ready. Other snakes have eggs, but they stay inside the mother and hatch there, and the little snakes emerge from the mother. And finally, some snakes have no eggs and give birth to live young.



Why are snakes important? One of the biggest reasons is that they play a very important role in the ecosystem. They are predators, and as such, they help to control the populations of many smaller organisms, such as rodents, frogs, insects (as juveniles), birds, and fish. Snakes often prey on organisms that can affect humans themselves, such as rats that spread diseases and get into our food supplies. This is an important service they provide to humans. Snakes are also food for many other creatures.

Also, snake venom is now being used to create medicines that are very important for patients with heart problems and diabetes. Some components of snake venom are used to thin the blood and keep it from clotting, or to alter the heart rate of a person with an abnormal heartbeat.



Now how do these characteristics and behaviors lead to dangerous encounters with snakes? Or, how can they help us avoid a bad encounter with a snake?

- We can **keep our distance when we see a shedding snake**, knowing that it is more vulnerable and perhaps aggressive during that time
- We can use the knowledge that snakes are sensitive to vibrations to **walk with heavy footsteps** when out on a trail or in the bush - this might make them move away from us
- If we know when snakes are active (day or night, wet season/dry season) we can **be more cautious during their active times** and take actions to avoid them during those periods.
- If we know that some snakes, like puff adders, conceal themselves along a path where prey is likely to travel (they are ambush predators), then we can be very observant when walking in places where they might be concealed (tall grasses), and **use a stick to probe the ground in front and alongside us**.
- If we know snakes are often found in certain types of habitats, we can be more aware and practice good prevention skills when in those habitats.

- On hot days, we can ***be particularly careful in shady areas***, because snakes may go there to cool down after basking in the sun
  - Because we know snake habitat is shrinking, we can understand that ***snakes may be driven toward buildings by human activities*** and be observant as we carry out our daily activities in those buildings.
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**Snake identification (essential)** - Beforehand choose maybe 3 of the most likely venomous snakes and 3 non-venomous snakes to show to the students during this part of the presentation.

What we want to do next is to teach you how to identify some of the dangerous snakes that are found in your area, and we will also show you a few of the harmless snakes so you won't feel like you have to kill them when you see them. Just keep in mind that there are many more types of snakes than the few we are going to show you today.

As we get into identification, let's keep in mind that there are two types of snakes. Some are absolutely harmless, so if they bite you out of fear, it might hurt but it is not going to kill or even make you sick. There are bacteria in their mouths, so just keep the wound clean and you will be ok.

However, there are several kinds of snakes that have a chemical mixture called venom that can be injected deep beneath your skin using sharp fangs in the snake's mouth. These chemicals can cause you pain or make you really sick. In some snakes the venom is so powerful that it can kill you if you do not get treatment soon enough.

If you are bitten by a harmless snake and you go to the traditional healer, it may seem like whatever treatment they give you works like a miracle cure - but that is because there was no venom there to make you sick or die in the first place. It was the bite of a harmless snake.

On the other hand, if you are bitten by a venomous snake, such as a cobra, mamba, or puff adder and instead of going directly to the hospital you go to the traditional healer, you are taking an **unnecessary risk** and **wasting precious time**. There is **no treatment** that a traditional healer can give you that will destroy or neutralize or render ineffective the venom in your body. You will have wasted time that might cost you your life, particularly for a **black mamba bite which can take your life in as little as 30 minutes**.

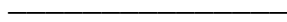
So, if you know how to identify the dangerous snakes, and you know the symptoms that you will feel when bitten by a venomous snake, you can save time by going directly to the hospital to get **treatment with antivenom**, a special medicine that can destroy the venom inside you. The doctors will determine if antivenom treatment is necessary based on your symptoms.

We are going to be learning from some snake identification cards that look like this:



Each card has the name of the snake in the lower right corner (point to it), the characteristics of the snake along the left hand side, some arrows pointing to key characteristics, and how dangerous the snake is in the lower right corner.

Now let me introduce you to the snakes we have chosen to show you today on our snake ID cards. [Proceed to show them the cards you have selected for the day]



**Encountering Snakes Outdoors (essential)** - So the next thing we want to think about is where we might encounter snakes so that we can avoid them or be extra careful. First we will talk about outdoor locations where we can encounter snakes, then we will talk about encountering them in your house.

We often encounter snakes because we want to enjoy the same spaces. For example, snakes often seek out houses because they can (1) get out of the sun and cool off, (2) find food (rodents), and (3) find water. We might encounter a snake under a tree because we both want to be in the shade.

One place we might encounter a snake is when we are walking along a path to get from one place to another, like in this poster:



Where in this poster might snakes be hiding? Where would you want to be extra careful?

Here are some things in this poster to help us take extra precautions to lower our risk of encountering a snake when walking from place to place:



Sometimes we need to be outside in the field tending to our crops. If you are growing vegetables in a garden or field, what are some things you might do to keep from an encounter with a snake?



### When you are farming: tilling, planting, harvesting

Be careful when sitting or kneeling, and use long handled tools if possible; snakebites often occur when farmers try to kill snakes in the field

There are also many people in our district who are involved with herding of cows, sheep, and goats. Where might snakes be hiding in this poster? What are some things you should keep in mind to avoid a deadly snake encounter?



### How can you keep from having a bad experience with a snake when herding?

Wear sturdy shoes, keep your eyes on the ground around you, have a walking stick with you, don't stay out after dark

There is one more outdoor area we should really think about, and that is your own compound. Snakes are often attracted to our compounds because of shelter, food, and water. Where might snakes be hiding in the compound of this poster? What could be done to make this compound safer?



Things we recommend for keeping your compound safe are:

- Keep grass cut short
- Trim branches of trees that overhang the house
- Keep woodpiles and water sources away from the house
- Clean up piles of construction materials, plastic, metal, and debris
- Keep storage areas neat and tidy
- Be careful when using the latrine (look inside and overhead)
- Keep animals away from house if possible
- Use a flashlight at night when going to relieve yourself



One more thing we should consider. If you see a snake, how do you know if it feels threatened and that it might strike at you. You want to look for a threat display. If the snake is just moving along on the ground, it is probably not too disturbed. But if you see a



snake coiled up with its head up or hood spread, you need to be very careful and back away. Also look for hissing, scale rubbing, tongue flicking in and out, mouth open.



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**Encountering Snakes In The House (essential)** - It would be a pretty frightening thing to find a snake, especially a dangerous one, inside your house. Remember, snakes enter your house because of shelter, food, and water. Snakes can be found on the floor, in the rafters overhead, and inside boxes. Let's look at some specific rooms and see where snakes might be hiding. For each of these posters tell me how snakes can enter your house and where they might be hiding.



How can snakes get into this room?  
Why would they want to enter this room?



Where might snakes hide in your house?



Now the point of this is not to scare you, but to help you take some positive actions to make sure snakes are not in your house. There are some places you should always check, especially in the morning when you get up and at night when you go to bed.

Check these things at night before you go to sleep and when you get up in the morning



Under bed and under covers



Under any cushions or furniture in well-ventilated



Under roof supports



Under piles of clothes



Under shoes



Under drawers

Always look at the floor before you get down off of your bed or any furniture



When sitting on floor, look to see where you are sitting or standing first



They can be on the floor, so try not to sleep on the floor if possible

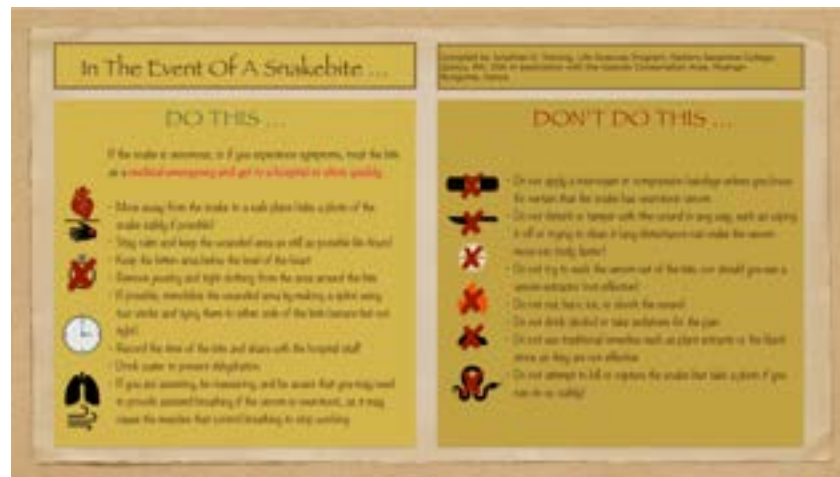


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We want to end today with a story that will help you understand what snake venom is and how it can affect your body if you are ever bitten by a venomous snake. We also give you some things you should do and some you should not do if you are bitten.

[Share the “Three Bad Guys and a Superhero story showing the kids each page in poster form]

Now suppose you are bitten by a snake, what are some things you should do and should not do. Let’s look at this poster:



*Proceed to demonstrate for them how to make a splint with a piece of wood and some cloth strips on both the arm and the leg. Remind them that this is meant to immobilize the limb and keep the venom from moving through the body faster.*

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**Review Questions (essential)** - Ok, let’s review what we’ve learned. I am going to ask you some questions. When I ask the question, do not shout out the answer, but raise your hand please until I call on you.

1. [Show them a picture of one or more snakes while covering the name]. Who can tell me the name of this snake? [Repeat for each type of snake]

2. What are three reasons a snake tries to get into human houses? [*Answer: food, water, shelter*]
3. Why should you NOT go to the traditional healer after a bite from a venomous snake?
4. Tell me a place where you need to be careful not to encounter a snake when outside - where do they hide? (ask several times with a different person each time)
5. What does an angry or threatened snake look like? [*Answer: coiled with head up, hood for some, mouth open, tongue flicking, hissing*]
6. What is one place where a snake might be hiding in your house? (ask several times with a different person each time)
7. Tell me one thing you should do if you find a snake in your house. (ask several times with a different person each time)
8. How might you feel if you are bitten by a snake that puts Neuro inside you?
9. What if the snake bit you with Cyto venom? How would you feel then?

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**I want to thank all of you children for being so very good today and listening and participating. We are very proud of you. And thank you to your teachers and the school leaders for inviting us to present to you today. Does anybody have any questions before we leave?**