British Science Week at Highlands School

This year, our school had the exciting opportunity to celebrate British Science Week with an engaging and hands-on experience. The theme for this year's event was ***Change and Adapt***, and we were fortunate to invite an external company to help bring this theme to life.

7 - 16 March BRITISH SCIENCE WEEK 2025

Students had the chance to get up close and personal with a variety of fascinating animals, learning about how each creature has evolved to survive in its environment. Among the animals our students interacted with were a snake, scorpion, gerbil, frogs, snails, and a gecko. These unique animals provided an excellent opportunity for students to explore the incredible adaptations that help them thrive in their habitats.

Our students were highly engaged throughout the session, asking insightful questions and showing a genuine curiosity about the animals' behaviours and features. They were particularly fascinated by the snake's ability to shed its skin and the gecko's remarkable ability to climb walls. The interaction sparked lively discussions about the different survival strategies each animal uses, from the scorpion's defensive venom to the frog's ability to camouflage.

It was a truly enriching experience that allowed students to connect their classroom learning with the real world. The hands-on nature of the event made science come alive, inspiring many students to explore more about the natural world. British Science Week at our school was a huge success, fostering a deeper interest in science and the incredible diversity of life around us.




HIGH STEM

The corn snake

Here are some key adaptations of the corn snake. These adaptations allow corn snakes to thrive in a variety of habitats, from forests to grasslands, and make them skilled hunters and survivors.

Colouration and pattern

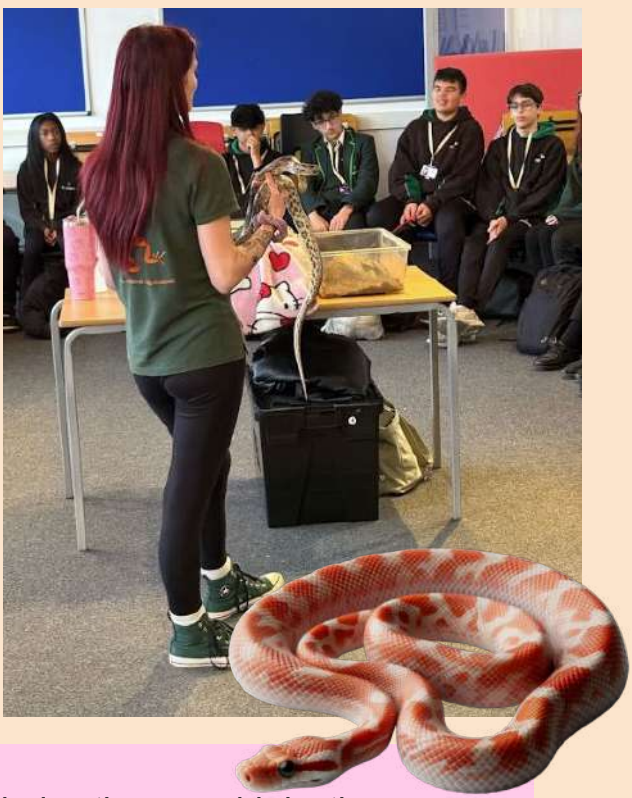
The corn snake has a distinctive reddish-orange body with black-bordered yellow or white markings, which helps it camouflage in its natural environment and avoid predators.

Prehensile tail

Its tail is slightly prehensile, allowing it to wrap around objects for better balance and stability, especially when climbing.

Flexible jaw

Corn snakes have highly flexible jaws, enabling them to swallow prey much larger than their head, a common adaptation in constrictor snakes.



Venomless

Unlike many snakes, corn snakes are non-venomous, relying on constriction to subdue their prey.

Heat-Sensitive Pits

While not as developed as some species, corn snakes possess heat-sensing abilities in their pits to detect warm-blooded prey, such as rodents.

Secretive and nocturnal behaviour

They are mostly active at night (nocturnal), which helps them avoid daytime predators and reduces the risk of desiccation in hot environments.

Scorpions

Here are some key adaptations of scorpions. These adaptations help scorpions thrive in harsh, dry environments while effectively capturing prey and defending themselves from threats.

Venomous stinger

Scorpions have a venomous stinger at the end of their tail, used to capture prey and defend against predators.

Exoskeleton

Their hard exoskeleton provides protection from physical damage and water loss, helping them survive in harsh, dry environments.

Pincer-like claws

Scorpions have large, powerful pincers (chelae) to grab and hold onto prey, as well as for defense and fighting other scorpions.

Nocturnal behaviour

Scorpions are primarily active at night, avoiding the intense heat of the day and conserving moisture by staying in cool, shaded areas.

UV light sensitivity

Scorpions glow under ultraviolet (UV) light due to a substance in their exoskeleton, which may help them avoid predators or find mates.

Slow metabolism

Scorpions have a slow metabolism, allowing them to go without food for extended periods, which is crucial for survival in arid environments.

Efficient water conservation

They can survive long periods without water by conserving moisture through their exoskeleton and efficient kidney function.

Geckos

Here are some key adaptations of geckos. These adaptations help geckos thrive in a variety of environments, from deserts to tropical forests, by aiding in movement, survival, and reproduction.

Sticky toe pads

Geckos have specialised toe pads that allow them to cling to smooth surfaces, such as glass and walls, using microscopic setae that create adhesive forces.

Regenerative tail

Many geckos can shed and regrow their tails when threatened by predators, a defense mechanism that helps them escape while the predator focuses on the detached tail.

Colour change

Some geckos can change the color of their skin to blend in with their surroundings, providing camouflage from predators.

Night vision

Geckos have excellent night vision, as many species are nocturnal and rely on their ability to see in low-light conditions to hunt for insects.

Vocalisation

Geckos produce a range of sounds for communication, including mating calls and warning signals, which helps them interact with others of their species.

Powerful jaws

Geckos have strong jaws to catch and eat insects, their primary food source, and can also use their jaws to defend themselves if necessary.

Climbing ability

With specialised limbs and a light body, geckos are highly skilled climbers, enabling them to move easily through trees, rocks, and other surfaces.