

BIOFACTS

Biofacts are any organic material obtained from something that was once living. This includes seeds, fur, skulls, feathers, shells, pieces of woods, etc. They are valuable educational tools that can be used in a wide variety of ways. We have a lot of animals that cannot be approached and especially not touched. Biofacts are an opportunity to let people get “up close” to these animals. Biofacts can be used to demonstrate information almost as well as, or sometimes even better than, the live animal itself. Please take the opportunity to explain to people WHY we have biofacts and their value in education. Here are some examples of ways to use biofacts:

1. **Skulls, Teeth, Jaw Bones** - You can tell a lot about an animal (what it eats, how strong it is, how old it was, where it lives, etc.) just by looking at its skull.
 - Illustrate features of an animal’s skull to zoo visitors. Show how the teeth shape, size of sagittal crest, eye socket placement, horns, etc. help it survive.
 - Compare skulls from herbivores, carnivores and omnivores. Herbivores have flat grinding molars and “lawn mower like” front teeth. Herbivores also tend to have eyes on the side so they can see a wider range of view to spot predators. Carnivores have sharp, pointy canines for holding onto wriggling prey and sharp, ridged molars for shearing meat. Carnivores tend to have forward facing eye sockets and good depth perception for capturing prey. Omnivores have a mixture of both types of teeth and usually have forward facing eyes.
2. **Hides/Pelts/Sheds** - There are few places in the United States where people get the opportunity to legally touch monkey fur or a lion pelt. All animals, including humans, have an outer layer covering their bodies. The nature of this covering gives clues to an animal’s adaptations that help them to survive in their environments
 - Use a boa constrictor shed to show the size of these amazing snakes. You could take along a shed from one of the smaller snakes as a comparison and to show people how big boas get. They start out small enough to fit in an egg but grow to be over 10 feet long!
 - **Compare animal coverings and their functions.** Feathers, horns, scales (including on tortoise shells), nails, and hair/fur are all essentially made from keratin. As animals evolved the ability to regulate their temperature internally, they needed to also evolve coverings that held in heat. Scales provide very little insulation, but fur and feathers can help warm or cool animals. On some animals they can even be almost waterproof!

Have fun! Don’t stress out about the complexities of animal bodies, because most audiences NEED you to keep it to simple facts. Zoo guests are here to have fun, not to feel like they are in school. People instinctively want to touch and feel things in order to learn. You’ll find that biofacts are essential for helping people finally understand concepts. If you need help with what to talk about, feel free to ask the Docents what they use or ask the Education staff for ideas.