The Physics of Gecko Feet

Introduction and Learning Objective

The purpose of this video is to introduce students to factors that enable geckos to adhere to surfaces. This is the video portion of my final project for Introduction to Digital Media ISLT 7361. The final digital media product will teach students about gecko foot structures and how they enable geckos to adhere to surfaces.

Video Learning Objective

Students will be able to identify factors that enable geckos to adhere to surfaces when given several possible options.

Licensing

Videos/Photos
Pixabay video by Paweł Sierpiński from

https://pixabay.com/videos/vaccine-medicines-research-doctor-74255/

Pixabay video by Tomislav Jakupec from https://pixabay.com/videos/science-molecule-research-5453/

"The Gecko's Latest Superpower Revealed" by UC Berkeley from https://www.youtube.com/watch?v=wbKVZIhloaM (licensed under Creative Commons)

Pixabay video by Christian Bodhi from https://pixabay.com/videos/gecko-lizard-reptile-tropical-50041/

Pixabay video by Tibor Janosi Mozes from https://pixabay.com/videos/laboratory-architecture-modern-4372/

"Adorable Gargoyle Gecko!" by AnimalLover368 from https://www.youtube.com/watch?v=GOnFmt3z8ek&t=82s (licensed under Creative Commons)

"Gecko Feet" by Kevin H. from https://www.flickr.com/photos/16151021@N00/5021349017 is licensed under CC BY-NC-ND 2.0

"Gecko Feet" by derekbruff is from https://www.flickr.com/photos/46259794@N02/5942146628 (licensed under CC BY-NC-ND 2.0)

"Gecko lizard toe hairs inspired the design of medical adhesives" by ZEISS Microscopy from https://www.flickr.com/photos/75834543@N06/14255992540 (licensed under CC BY-NC-ND 2.0)

"Sticky feet" by Oregon State University from https://www.flickr.com/photos/33247428@N08/14884187061 (licensed under CC BY-SA 2.0)

Audio

Background music royalty free from Ben Sound at https://www.bensound.com/royalty-free-music/track/jazz-comed

Reflection

The process of recording and editing this video helped me to gain a greater understanding of the methods used to create digital video for education. The storyboarding process was helpful because it forced me to slow down and plan the details of my project before starting. I had previously underestimated how important these pre-filming steps would be- particularly in an educational context. The act of planning out every detail including the shots, angles, and motions I wanted to incorporate helped me to use my time effectively while filming, and helped me to make sure that my video included all of the necessary components for learning. This storyboarding technique could be helpful for creating a variety of digital media! I was also excited to learn about the types of shots, angles, and motions that are frequently used in videos, and how they might be applied. This opened my eyes to some of the techniques used in other educational videos I've watched! Overall, I think that my project will support students in meeting my learning objective. I feel confident that students would be able to identify factors that help geckos to stick to surfaces after watching this video.