

# **LIZARDS AND EVOLUTIONARY TREES**

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## HHMI ACTIVITIES

### Card Sort

The Caribbean Islands are home to small reptiles called anoles. These anoles have 6 different body types based on the microhabitat in which they live. Today, you will be looking at 4 of those types.

Sort your cards into categories of like anoles. Some things you may consider include: size relationships of different body parts, color, and location in the picture.

## HHMI VIDEO

HHMI offers free resources to teachers – both on the website and as products.

Videos – downloadable, streaming, or on DVD.

Watch the video on anoles and the types of research that is happening on the Caribbean Islands. As you watch, think about your categories.

## ECOMORPHS

How did the different ecomorphs come to exist?

2 Hypotheses:

1. They evolved in one location and then spread to different islands through geological shifts and other natural phenomena.
2. They each evolved in parallel on their individual islands.

What do you think is more likely? Why?

## ANOLE DNA ANALYSIS

You can use an online analyzer to create a phylogenetic tree using the known DNA sequences. To save time, we have done this for you.

First, sort your lizards by ecomorph and color code your tree. For example, color all the “ground” anoles the same color on your tree.

Next, create a new color-coded tree by location. For example, color all the anoles from Jamaica the same color.

Which color-coded tree is most accurate?

## WRAP UP

Finish Video

Measure the physical attributes of anoles to draw conclusions about their changes in population over time.

## LITERACY STRATEGY

Found Poems and Performances

Smithsonian Article – Read the passage.

Use the double spaced passage – underline/circle important pieces of information. Mark out the redundant, boring, and/or unnecessary pieces.

Select a piece of the passage that is approximately 150-300 words.

## FOUND POEM

Arrange your remaining words into poetic lines. Try more than one format.

What are some ways that you see poems arranged?

Title your new text, “Found Poem.” Under the title, add the subtitle, “Words from ....”

At the bottom of your poem add, “Arranged by...”



## PERFORMANCES

Readers' Theater: Personify items in the passage to say different lines. Add in some parts for a narrator.

Rap: Use verses and a chorus. Emphasize beats with snaps or claps.