

# Lizard Island for Small Groups

This version of the Lizard Island activity is designed for groups of 1 to 15 students.

Follow the step-by-step instructions on this printout. There's no video step-by-step for the "small group" version. We are still testing this version and appreciate any feedback you might have.

## Activity Prep:

### Step 1: Print materials

For each group of 3 students, print one set of [Adopt A Lizard sheets](#) (labeled A, B, & C).

- For 1 to 3 students, print 1 set.
- For 4 to 6 students, print 2 sets.
- For 7 to 9 students, print 3 sets.
- For 10 to 12 students, print 4 sets.
- For 13 to 15 students, print 5 sets.

For the entire group, print

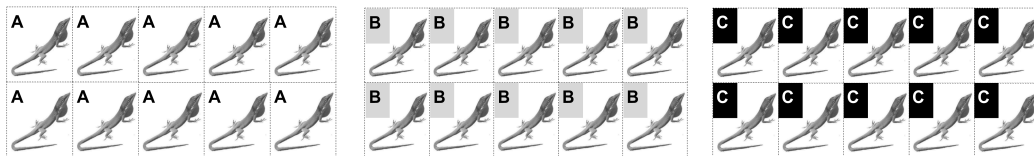
- A set of Small Group [Baby Lizard Cards](#) (3 sheets)
- A set of Small Group [Little Lizard Cards](#) (3 sheets)

For each student, print

- One [How Many Lizards sheet](#)

### Step 2: Cut up the cards

- Cut the little lizard cards on the dotted lines so you have ten A cards, ten B cards, and ten C cards:



- Cut the Baby Lizard pages apart on the dotted lines so you have 6 Baby Lizard cards:

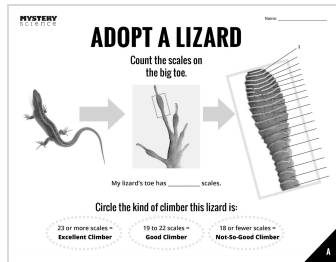


# Step-by-Step Instructions

1. Tell your students:

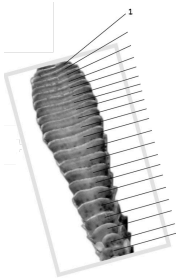
*There are lizards on Lizard Island that are excellent climbers, ones that are good climbers, and ones that are not-so-good at climbing. To figure out how good a climber a lizard is, you have to count the sticky toe scales on the lizard's big toe.*

2. Give each student an Adopt A Lizard card. Each Adopt A Lizard card shows a closeup photo of the big toe of a lizard. There are three different cards, each with a different lizard: A, B, and C.



← Note the bottom right corner. This is Lizard A.

3. Ask students to count the toe scales so you know how the number of toe scales each lizard has. There is a line to each toe scale (see picture below) to make counting easy. If you only have one student, they'll have to count the scales on all three lizard toes!



4. At the bottom of the card, circle what kind of a climber your lizard is. The number of scales tells you which one to circle. After students count the scales, have them circle what kind of climber their lizard is. If the lizard has 23 or more scales, it's an excellent climber. If it has 19 to 22 scales, it's a good climber. If it has 18 or fewer scales, it's a not-so-good climber.



5. Tell your students:

*Before the brown anoles get to Lizard Island, there are 30 green anoles living on the island. Ten of them are excellent climbers, ten are good climbers, and ten are not-so-good climbers. Fill those numbers in on the Original Lizards side of your How Many Lizards printout. Use your Little Lizard Cards to represent all these lizards.*

**MYSTERY** **HOW MANY LIZARDS?** Name \_\_\_\_\_

**ORIGINAL LIZARDS** CONNECTION 1

When brown lizards came to the island, the green lizards could climb trees. But some green lizards were better climbers than others.

There are \_\_\_\_\_ excellent climbers.

There are \_\_\_\_\_ good climbers.

There are \_\_\_\_\_ not-so-good climbers.

To make a bar graph, color in a box for each lizard.

**BABY LIZARDS** CONNECTION 2

This is what the green lizards were like after the brown lizards arrived.

There are \_\_\_\_\_ excellent climbers.

There are \_\_\_\_\_ good climbers.

There are \_\_\_\_\_ not-so-good climbers.

To make a bar graph, color in a box for each lizard.

Excellent climbers

Good climbers

Not-so-good climbers

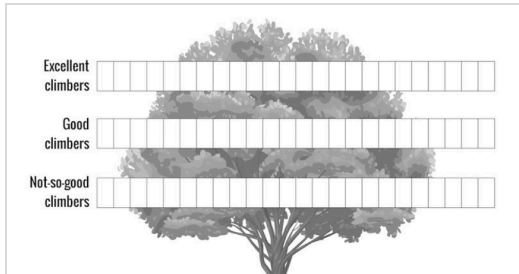
Excellent climbers

Good climbers

Not-so-good climbers

Fill in the graph on the LEFT side of the page (“original lizards”) →

- To make a graph from the numbers, color in a box for each excellent climbing lizard. Do the same for good & not-so-good climbers.



- Watch the video after the first step-by-step to find out what happened to the green anoles after the brown anoles arrived.



- Now it's time to figure out which green anoles are caught by the brown anoles. Tell your students the following, and take away cards as noted:
  - The not-so-good climbers are easiest to catch — only two of them survive. **Take away 8 of the lizards labeled A, the not-so-good climbers.***
  - The good climbers are harder to catch — half of them survive. **Take away half of the lizards labeled B, the good climbers.***
  - The excellent climbers are the best at getting away — only two of them get caught. **Remove 2 the lizards labeled C, the excellent climbers.***
- Mix up all the remaining little lizard cards and put them into pairs. Each pair is going to make a lizard family. One is the father lizard and the other is the mother lizard. Each pair of lizard parents will make 4 lizard babies. What kind of climbers will those babies be? Well, that depends on what their parents are like.
- Have your students use the 6 Small Group Baby Lizard Cards to figure out the number of toepads on the babies from each combination. Once they know that, they can circle the kind of climber those babies are, and figure out how many babies there will be for that combination.

Combination AA

GENERATION 2

Baby Lizard

How many lizards does your baby lizard have?

Step 1: Write down how many lizards each parent has.

Two scales on parent #1: 18

Two scales on parent #2: 20

Step 2: Add these numbers together.

The sum of the parents' two scales equals: 38

Step 3: Divide the sum by 2.

The sum divided by 2 equals: 19

This is how many lizards the baby has.

Circle the kind of climber the baby is.

Circle the number of lizards the baby has to get # of babies.

23 or more scales = Excellent Climber

19 to 22 scales = Good Climber

18 or fewer scales = Not-So-Good Climber

Combination AB

GENERATION 2

Baby Lizard

How many lizards does your baby lizard have?

Step 1: Write down how many lizards each parent has.

Two scales on parent #1: 18

Two scales on parent #2: 20

Step 2: Add these numbers together.

The sum of the parents' two scales equals: 38

Step 3: Divide the sum by 2.

The sum divided by 2 equals: 19

This is how many lizards the baby has.

Circle the kind of climber the baby is.

Circle the number of lizards the baby has to get # of babies.

23 or more scales = Excellent Climber

19 to 22 scales = Good Climber

18 or fewer scales = Not-So-Good Climber

Combination AC

GENERATION 2

Baby Lizard

How many lizards does your baby lizard have?

Step 1: Write down how many lizards each parent has.

Two scales on parent #1: 18

Two scales on parent #2: 20

Step 2: Add these numbers together.

The sum of the parents' two scales equals: 38

Step 3: Divide the sum by 2.

The sum divided by 2 equals: 19

This is how many lizards the baby has.

Circle the kind of climber the baby is.

Circle the number of lizards the baby has to get # of babies.

23 or more scales = Excellent Climber

19 to 22 scales = Good Climber

18 or fewer scales = Not-So-Good Climber

Combination BB

GENERATION 2

Baby Lizard

How many lizards does your baby lizard have?

Step 1: Write down how many lizards each parent has.

Two scales on parent #1: 20

Two scales on parent #2: 20

Step 2: Add these numbers together.

The sum of the parents' two scales equals: 40

Step 3: Divide the sum by 2.

The sum divided by 2 equals: 20

This is how many lizards the baby has.

Circle the kind of climber the baby is.

Circle the number of lizards the baby has to get # of babies.

23 or more scales = Excellent Climber

19 to 22 scales = Good Climber

18 or fewer scales = Not-So-Good Climber

Combination BC

GENERATION 2

Baby Lizard

How many lizards does your baby lizard have?

Step 1: Write down how many lizards each parent has.

Two scales on parent #1: 20

Two scales on parent #2: 20

Step 2: Add these numbers together.

The sum of the parents' two scales equals: 40

Step 3: Divide the sum by 2.

The sum divided by 2 equals: 20

This is how many lizards the baby has.

Circle the kind of climber the baby is.

Circle the number of lizards the baby has to get # of babies.

23 or more scales = Excellent Climber

19 to 22 scales = Good Climber

18 or fewer scales = Not-So-Good Climber

Combination CC

GENERATION 2

Baby Lizard

How many lizards does your baby lizard have?

Step 1: Write down how many lizards each parent has.

Two scales on parent #1: 20

Two scales on parent #2: 20

Step 2: Add these numbers together.

The sum of the parents' two scales equals: 40

Step 3: Divide the sum by 2.

The sum divided by 2 equals: 20

This is how many lizards the baby has.

Circle the kind of climber the baby is.

Circle the number of lizards the baby has to get # of babies.

23 or more scales = Excellent Climber

19 to 22 scales = Good Climber

18 or fewer scales = Not-So-Good Climber

Circle the kind of climber this lizard is.  
Multiply number of Lizard Families by 4 to get # of babies = \_\_\_\_\_

23 or more scales =  
**Excellent Climber**

19 to 22 scales =  
**Good Climber**

18 or fewer scales =  
**Not-So-Good Climber**

At the bottom of each of these, it says:

11. Now it's time to fill in the second graph on the How Many Lizards printout/Baby Lizards.

MYSTERY science

HOW MANY LIZARDS?

NAME: \_\_\_\_\_

ORIGINAL LIZARDS

When brown lizards came to the island, the green lizards could climb trees. But some green lizards were better climbers than others.

There are \_\_\_\_\_ excellent climbers.

There are \_\_\_\_\_ good climbers.

There are \_\_\_\_\_ not-so-good climbers.

To make a bar graph, color in a box for each lizard.

Excellent climber

Good climber

Not-so-good climber

BABY LIZARDS

This is what the green lizard babies were like after the brown lizards arrived.

There are \_\_\_\_\_ excellent climbers.

There are \_\_\_\_\_ good climbers.

There are \_\_\_\_\_ not-so-good climbers.

To make a bar graph, color in a box for each lizard.

Excellent climber

Good climber

Not-so-good climber

← Fill in the graph on the RIGHT side of the page now.

- Add up how many babies are EXCELLENT climbers and graph that on the Baby Lizards tree.
- Add up how many babies are GOOD climbers and graph that on the Baby Lizards tree.
- Add up how many babies are NOT-SO-GOOD climbers and graph that on the Baby Lizards tree.

12. Watch the final video.

**mystery science**

Can selection happen without people?