

Jump like a Frog!

Get moving while learning more about fantastic frogs

Summary:

Explore how a frog moves and why it may be useful for them. Try it yourself! Can you move like frogs move?

Guiding Questions:

How do frogs move?

Why do frogs jump?

Can you jump like a frog?

Experience Goals:

- Make observations and reflections about the features and behaviors of frogs.
- Compare your jumping abilities to those of a frog!

Supplies:

- Open space
- Plenty of energy!
- Measuring stick or tape measure
- Piece of tape to mark your starting line

Steps:

1. Explore what a frog looks like. Talk about it or draw a picture. Compare the three frogs pictured on page 5. How are their legs different from ours?
2. Discuss how frogs move. What do they look like when they jump? Discuss why frogs jump, and how it is a useful adaptation. (Examples: To get away from predators or to catch meals)
3. Try jumping like a frog! Squat into a frog stance, how far can you hop?
4. Measure the distance from your starting place to where you landed. Compare it to the distances frogs can jump!

Extensions:

- Look up videos of frogs jumping and human long jumpers. How are they the same? How are they different? Try adopting others' techniques and research some favorite frogs!
- How well can you mimic a frog's posture? Can you make a frog sound while you jump?
- Research other animals with impressive jumps, such as spiders or big cats!
- Have a jumping contest with your family. You can have awards for greatest distance, greatest distance relative to body size, most stylish jump, etc.
- Add a math component by calculating how many or much of your body length you can jump.
 - Measure your jump distance and height in the same unit (inches or centimeters are best).
 - Divide your jump distance by your height (in units matching your jump distance). The number you get is the number of body lengths you can jump (it may be less than one).
 - Compare that to the number of body lengths frogs can jump!
- Another math option: calculate how far you could jump if you had frog powers.
 - Measure your height in feet.
 - Multiply that by the number of body lengths a frog can jump (for example, times 9 for a bullfrog).
 - This results in the distance that you could jump with frog super powers!

Name _____

My longest jump _____feet

Multiply your height times number of body lengths frogs could jump.

I could jump this many feet if I were a:

A Bullfrog _____
(x9 your height)

A Sharp-nosed frog _____
(x36 your height)

A Leopard frog _____
(x15 your height)

For comparison:

- SUE the T. rex—40 ft.
- Maximo (the longest dinosaur ever)—122ft.
- Amtrak Superliner train car—85ft.
- Boeing 737 jet—232 ft.



Photo by Frank Schulenberg

Animal Facts:

Northern leopard frog- 4 inches long

- The state amphibian of Minnesota and Vermont
- Lives throughout northern United States and into Canada
- They can jump over 5 feet! (1.5 meters); That's 15 times their body length!



Getty images

Bullfrog- 8 inches long

- Lives throughout Eastern United States
- They can eat almost any animal that fits in their mouth
- They can jump over 6 feet! (2 meters); That's 9 times their body length!



Photo by Drew R. Davis.

South-African sharp nosed frog- 3 inches long

- Lives mostly in South Africa, extending into the center of the continent
- Their pointed nose reduces air resistance, helping them jump further
- They can jump over 9 feet! (3 meters); That's 36 times their body length!



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