

# Exploring Motion in Living Organisms

Created by: Christie Allen

Education Designs Curriculum Consultant and Elementary Educator for Lowndes County Schools in Valdosta, GA

## Overview:

Use this unit to activate students' exploration of the various types of motion in living organisms, their characteristics, purposes and differences. This unit integrates literature, writing, communication skills, math, drama, art, and music with science.

## Description of Activity:

Use these activities to look for relationships between the ways animals move and why and compare/contrast them to how people move.

## Lesson 1: Activator or Launch Activity:

(1-2 days depending on time allotment)

Show picture of a rabbit and turtle in motion. Allow students to talk with a partner or in group discussion about the ways they move and how they are different.

Read the fable "The Tortoise and the Hare" or watch the Disney Video  
<http://www.youtube.com/watch?v=MeZe2qPLPh0>

Or

Read Peter Cottontail by Beatrix Potter

Discuss the differences in how the two animals moved. Show a real picture of a rabbit or turtle in motion or watch the 3minute video on bunnies:  
[http://www.bbc.co.uk/nature/life/European\\_Rabbit#p007qvqr](http://www.bbc.co.uk/nature/life/European_Rabbit#p007qvqr)

Create a Venn diagram on chart paper or on the board discussing real vs. make-believe characteristics of rabbits and turtles. Be sure to focus on how real bunnies move. Then discuss how real turtles move by exploring pictures of turtles. Add this information to the class Venn diagram.

Discuss how turtles move. (Find helpful information at <http://teacher.scholastic.com/activities/explorations/adaptation/libraryarticle.asp?ItemID=32&SubjectID=120&categoryID=2> )

Show pictures of real turtles at the Cayman Turtle Farm:

<http://www.turtle.ky/turtle-1>

**Additional Fun Activities:**

Coloring pictures from [www.enchantedlearning.com](http://www.enchantedlearning.com)

Turtle: <http://www.enchantedlearning.com/subjects/turtle/Paintedturtle.shtml>

Rabbit:

<http://www.enchantedlearning.com/subjects/mammals/farm/Rabbitprintout.shtml>

## **Lesson 2: Why Do Animals Move Differently?**

(1day)

- Review the Venn diagram from the previous lesson. Open discussion by asking probing questions such as: How do rabbits and turtles move differently? Why can rabbits run quickly? Why do turtles move slowly?
- Can you think of other animals that move like rabbits? Make a list on the board as students offer other animals. Can you think of other animals that move like turtles?
- How do you move? Can you move like a turtle? Allow students to imitate how a turtle moves. (You may move to the gym, hall, or outside for this activity.) Allow students to imitate how a rabbit moves.
- Is that the only way you can move? Have students demonstrate slithering, hopping, crab walking, running, galloping, cantering, walking, swimming, swaying, etc. Have groups of students demonstrate specific ways of moving while others describe what they observe. Make changes in the rate of movement. If climbing apparatus is available and/or benches, beams and horses, the study of movement can extend into climbing, swinging with ropes, balancing, and movement up and down, backward and forward. Stress safety.
- Upon returning to class, have students draw pictures/write words comparing how turtles or rabbits move and how they move on one of the following Graphic Organizer. This can be completed as an individual class or homework assignment, a collaborative pair, group, or can be transferred to chart paper for a class assignment.

- Some ideas adapted from <https://www.k12.gov.sk.ca>



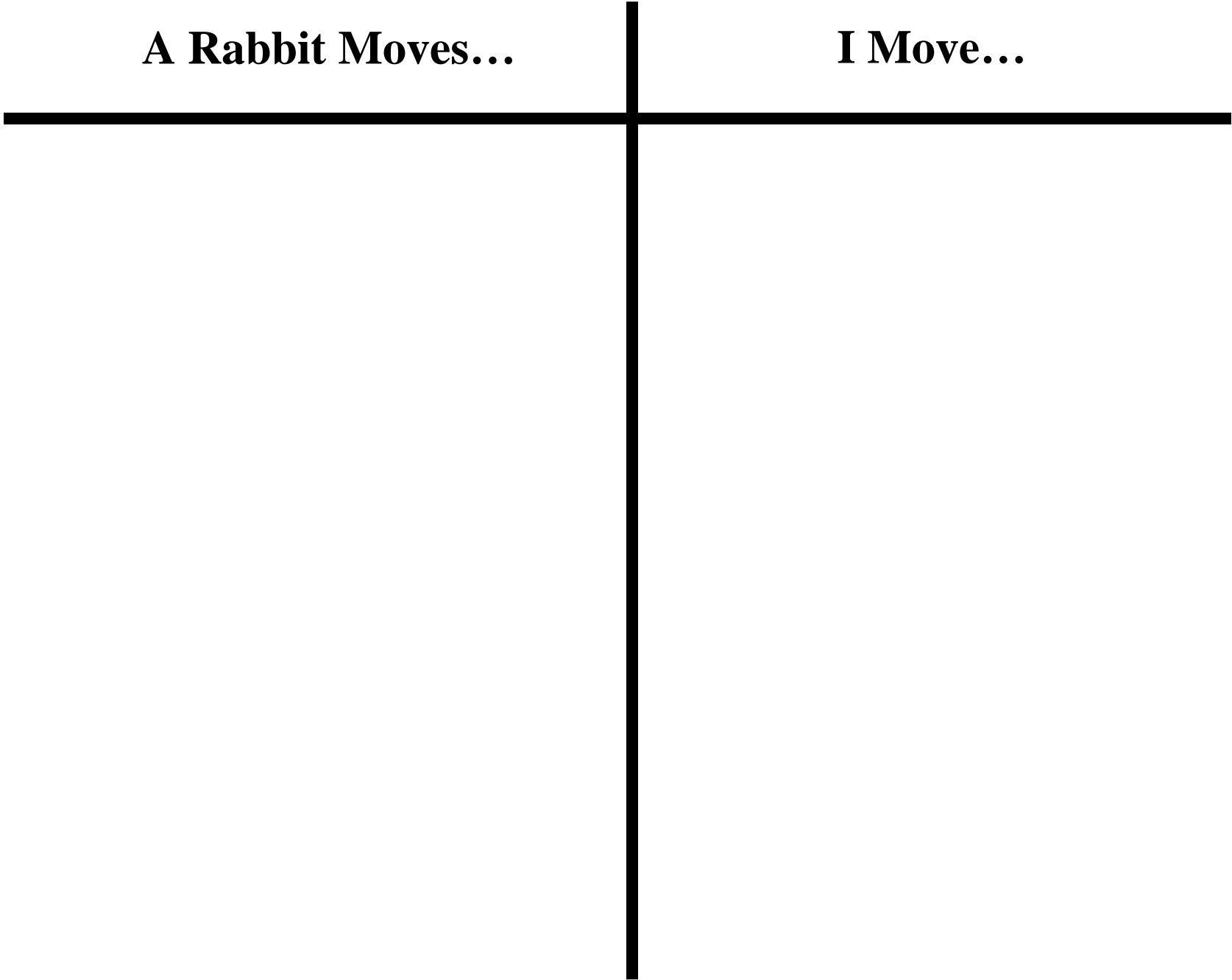
**A Turtle Moves...**

**I Move...**

<b>A Turtle Moves...</b>	<b>I Move...</b>

**A Rabbit Moves...**

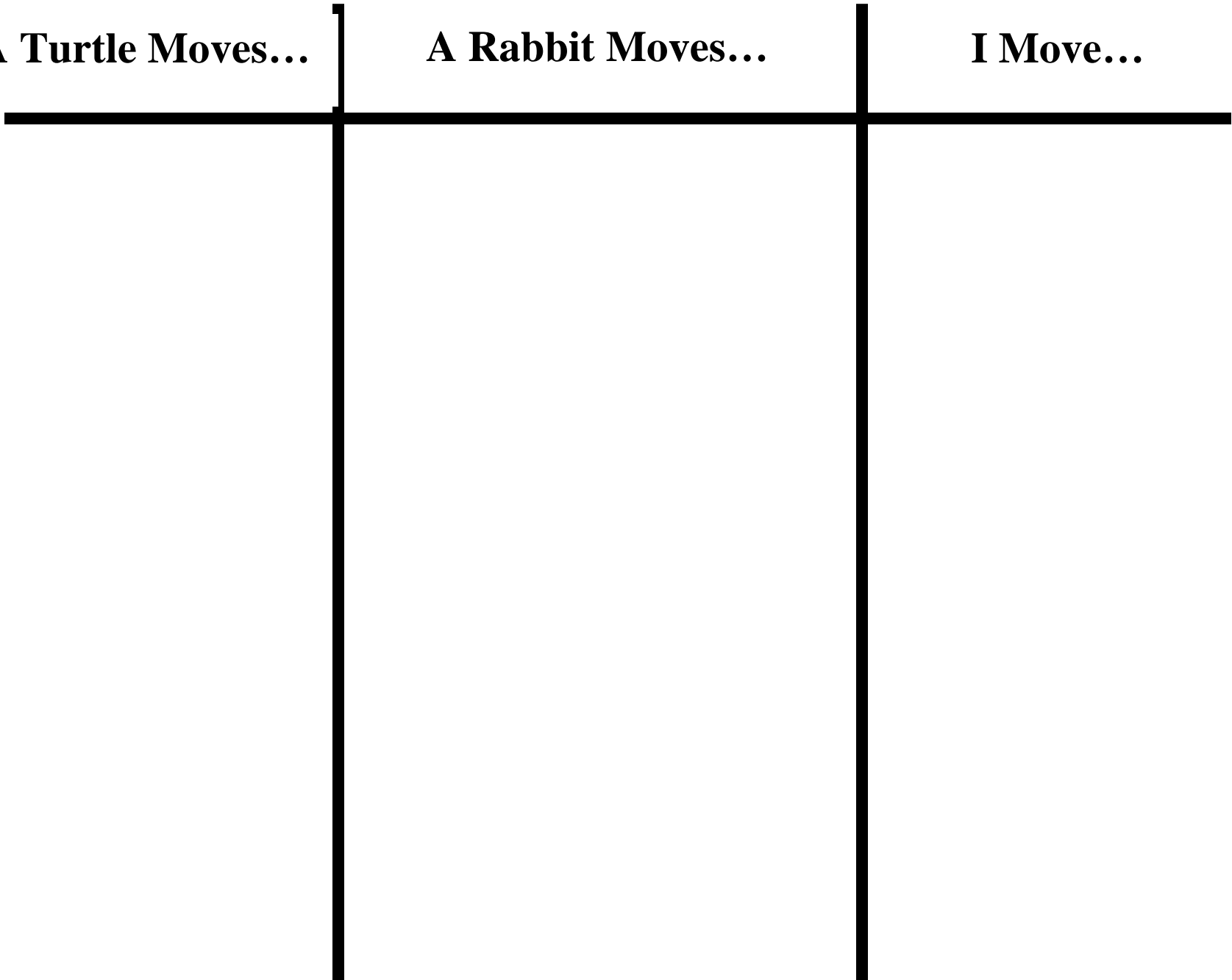
**I Move...**



**A Turtle Moves...**

**A Rabbit Moves...**

**I Move...**



### **Extension Activities:**

- 1) Extend the numeracy aspect of motion by having students hop a certain number of times, spin to the left or right, make a giant leap or ten baby steps while a partner measures the movement in standard or non-standard units.
- 2) Motion may be extended into the Arts Education curriculum through dance and movement to music. Drama also has movement incorporated into roles of the participants. Movements may be scripted and teacher planned, or can be created by students as they demonstrate their interpretation of the music or the role being played.
- 3) Have students work in pairs to mirror or mimic the movement of a partner



### **Writing Extension:**

Show a variety of pictures of different animals moving and create a word splash of movement words underneath each one and why they move that way.

Have students choose one of the animals on the board and pretending they are an animal on an adventure. They can draw pictures or use a combination of words and pictures to tell their story. Then have students re-tell their story using their pictures to their classmates in small group center time.

Use the following rubric to evaluate student's performance.

### Creative Writing/Retelling Rubric

	<b>ALL</b>	<b>MOST</b>	<b>FEW</b>	<b>SKIPPED or INCORRECT</b>
	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Ideas:</b> The writer uses creative ideas in the story depicted through words, illustrations, or both.				
<b>Ideas:</b> The writer effectively pretends to be the animal in the story with the characteristics of the animal's movement correctly depicted through illustrations, words or both.				
<b>Ideas:</b> The writer uses an appropriate setting demonstrating understanding of the animal's habitat.				
<b>Organization:</b> The writer uses a clear beginning, middle and end in the story depicted through illustrations, words or both.				
<b><u>Total Points:</u></b>	<b>13 - 16</b>	<b>9-12</b>	<b>5-8</b>	<b>0-4</b>
<b>Communication:</b> The writer completely retells the story including details about the animal's movement.				
<b><u>Oral Retell Score:</u></b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>