

KINDERGARTEN

MOTION

Station 1: Classifying animals on basis of how they move

Materials:

Pictures of animals

6 Motion Signs: walk, hop, fly, swim, climb, slither/crawl.

Station 2: Sorting objects into categories according to their motion

Materials:

- Toys that produce different kinds of movements such as balls, wheels, car, pinwheels, yo-yo, planes etc.
- Books, chairs, and heavy objects that you find in the classroom.

Station 3: Reading a Book and Observing Movement

Materials:

- Book: Forces Make Things Go by Kimberly Bradley (or a similar book from the Dolvin Media Center).
- . The Marble track.

Station 1: Classifying Animals On Basis Of How They Move

Materials:

Pictures of animals

6 Motion Signs: walk, hop, fly, swim, climb, slither/crawl.

Activity:

Give each child a card with an animal picture on it. Have each child name the animal for the group.

Put the Motion Signs on the table. Let the children talk about their animal and where they think it should go.

Some have multiple categories - monkeys can climb or run, turtles can swim or crawl etc.

If you have enough time, hand out a white piece of paper, children can draw them their own animals and classify them one at a time.

Other discussion points:

- Why are the animals able to move? It is because of energy that they get due to food they eat. Muscles are used for movement.
- Do plants move? No, however, plants may be moved around by wind or water. Can discuss about certain plants turning in the direction of sunlight or opening and closing (sun flowers, pitcher plant).
- Do planets move? Yes, planets rotate. Planets spin and orbit the Sun.

Station 2:

Sorting objects into categories according to their motion

Materials:

- Toys that produce different kinds of movements such as balls, wheels, car, pinwheels, yo-yo, planes etc.
- Books, chairs, and heavy objects that you find in the classroom.

Activity:

- Sort objects into categories according to their motion:
 - Straight (moves in a straight path: example a rolling ball, something dropped goes straight down, car from below itself not the wheels)
 - Zigzag (sking? weighted ball or oblong shape)
 - Round and round (wheels of a car, pinwheel, a small carousel)
 - Back and forth (swing, rocking horse, perpetual motion swing)
 - Fast and slow (race car, plane, toy snail)
 - Motionless (flat rock).
- Discuss that some sort of energy is required to make things move (electrical, winding, battery).
- Explain to children that things do not move by themselves - everything needs a push or a pull to make it move. These pushes and pulls are called forces. Some forces are big and some forces are small. Some forces, such as turning are both a push and a pull. Once something is moving it will keep going until a force stops it. Heavy things are difficult to stop - a ship can take several kilometers to stop moving. Fast things are more difficult to stop than slow things.
- Push, pull, and roll common objects in the classroom and describe their motions. Ask the students to try moving a heavy box of books across the classroom floor by pushing or pulling. Which is easier? Repeat the activity with the box on a mat. What do they observe? What do

the children think would happen if we did this on an inclined surface (a slope)? If the box is heavier would it would go faster or slower downhill?

If you have extra time:

- Ask the children to mime opening a door, pulling a cracker, kicking a ball, riding a bike and identify the force used. Include other actions that include dropping, lifting, twisting, turning, stretching, squeezing, and spinning. Ask the children to unscrew the tops from the bottles and tubs and describe what they are doing. Encourage them to exaggerate the action in order that they see, depending upon the direction of the twist or turn, whether these are pushes or pulls.
- Ask the children to mime driving a car. Discuss how a car moves. Does it just move on its own? (Cars and lorries do not move unless they are given a big push or pull by their engines). How does it start? How fast does it go? What does the driver do to make it go faster? What happens when you go down a hill? What does the driver do to slow down or stop? How does he make it change direction?

Station 3:
Reading a Book and Observing Movement

Materials:

- Book: Forces Make Things Go by Kimberly Bradley (or a similar book from the Dolvin Media Center).
- . The Marble track.

Activity:

Read the Book.

Let the children play and experiment with the marbles and the track.

Observe how the elevator brings the marbles back to the top and how one wheel moves the other.