

Science Words to use With Young Children

Adapted from <http://www.kodokids.org/stem-vocabulary-for-preschool/>



Balance: a condition in which different elements are equally proportioned. Example: “It looks like the teeter totter is off balance. Which side do you think needs more weight to in order to make both sides equal?”

Cause: something that gives rise to an action, phenomenon, or condition. Example: “The ball fell off here—what do you think was the cause for that?”

Chart: A science tool that we use to record information. This information is called data. Charts can help us remember how many chores we’ve done, tell us what the weather will be, and record how many children are in school.

Compare: Observing two (or more) things and thinking about how they’re the same

Contrast: Observing two (or more) things and thinking about how they’re different

Data: facts and statistics collected together for reference or analysis. Example: “Let’s collect some data so we can compare how far the ball travels on different ramp systems.”

Design: purpose, planning, or intention that exists or is thought to exist behind an action, fact, or material object. Example: “Let’s try something new. Before making a ramp system, we’ll make a design on paper, then follow it as we build.”

Discover: Finding out something new or interesting

Effect: a change that is a result or consequence of an action or other cause. Example: “I noticed when you moved this ramp, a little gap formed between it and the next one. I wonder what the effect will be on the ball when we try again?”

Elasticity: The property of a material that allows it to return to its original shape after being deformed by an external force. For kids, we introduce the idea using various “balls” colliding with the ground. Some don’t bounce because the stuff they’re made from doesn’t have much elasticity.

Elevation: the height to which something is rises. Example: “What do you think will happen if we change the elevation? What will happen to the ball if you lift the ramp higher or lower it’s elevation?”

Estimate/estimation: When you estimate, you make a good guess about quantities like how many things there are in a bowl or how far away something is. On the show, we estimate how

many seashells are in Sid's jar and how many bouncy balls Gerald has. Then we count to check our estimates.

Experiment: a scientific procedure undertaken to make a discovery, test a hypothesis, or demonstrate a known fact. Example: "Now that we've created our hypothesis, what experiment can we create to test it?"

Explore/exploration: When you explore, you observing things in the world around you. It's a lot like investigating.

Force: any interaction that, when unopposed, changes motion of an object. Example: "When you applied more force to the ball by pushing it, I noticed it went faster."

Friction: the resistance that one surface or object encounters when moving over another. Example: "What do you think would happen if we moved our ramp system to the smooth, wooden floor that has less friction than the carpet?"

Growth, growing: Things that are alive, like plants, animals, and people, change. Slowly they grow and get bigger. On the show the kids talk about how they've grown bigger, and we observe growing plants.

Habitat: Sort of like an animal neighborhood, it's where different animals live, find food, and make their homes.

Hypothesis: a proposed explanation made on the basis of limited evidence as a starting point for further investigation. Example: "What is your hypothesis for what will happen after we put the ball at the top of the ramp?"

Inertia: On the show, we explore one aspect of inertia-objects that are moving, keep moving until something stops them. Another is that objects that aren't moving stay that way until some force acts on them.

Investigate/investigation: When you investigate, you explore things and find stuff out.

Lever: Another simple machine, a lever makes it easier to lift things up. A see-saw or teeter-totter is an example of a lever. So is the jack you use to lift a car to fix a flat tire.

Magnify: To make things look bigger.

Magnifying glass: A science tool that we use, with our eyes, to make things look bigger so we can observe them better. On the show, we use magnifying glasses to observe Gerald's freckles and Sid's roly polies.

Non-standard measurement: For length, non-standard measurement means measuring with something other than a ruler or tape measure. On the show, we measured a room with Gerald!

We learned there are rules when we measure this way, though. Only measure with one kind of thing at a time, and don't leave spaces in between.

Nutrients: Living things need nutrients to grow. People and animals get most nutrients food. Leaves make nutrients using sunlight. Some animals eat leaves as food because leaves are full of nutrients.

Nutritious foods: Foods that will help you grow strong and healthy. Eat lots of different kinds of nutritious foods to be healthy.

Predict: say or estimate that (a specified thing) will happen in the future or will be a consequence of something. Example: "If I use the heavy ball instead of the light one, what do you predict will happen differently?"

Observation: the action or process of observing something or someone carefully or in order to gain information. Example: "Tommy is going to test his hypothesis. Sara, why don't you and I make observations, so we can take notes and drawings of what happens!"

Pattern: a repeated decorative design. Example: "I see that in your ramp system, there is one long, then one short, one long, and another short. What size ramp is next in this pattern?"

Prism: A special tool that we can use, with a light source, to make the rainbow's spectrum of colors—red, orange, yellow, green, blue, indigo, and violet.

Pulley: The pulley makes work easier. It's made of a wheel (or more than one wheel) and a rope. To lift something heavy, attach it to the rope on one side of the wheel, then pull the rope on the other side.

Soil: Another word for the dirt that plants grow in and worms crawl through. Soil can be different colors. It can have leaves, twigs, and pebbles in it.

Speed: the rate at which someone or something is able to move or operate. Example: "How do you think the ramp's elevation will affect the ball's speed?"

Temperature: A measure of heat energy. On the show, we say it's a measure of how hot or cold something is.

Texture: The way something feels when we touch it with our skin. We learn about lots of textures-scratchy, soft, bumpy, rough, smooth, and squishy.

Theory: a supposition or a system of ideas intended to explain something, especially one based on general principles independent of the thing to be explain. Example: "You think the ball will go up the ramp when we let go of it? That's an interesting theory. Why do you think that?"

Thermometer: A tool to measure temperatures.