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| **Statement** | **Testable / Not Testable** | **How to Make it Testable** |
| Do fingers wrinkle faster in hot or cold water? | Put finger in hot water and time wrinkling.  Repeat with cold water. Compare times (T1 vs T2). | If T2 (cold) > T1 (hot), hot water causes faster wrinkling. |
| How do cats meow? | Pull the left ear → Does it meow? Fill a bowl with milk → Does it meow? Show it a rat → Does it meow? | Observe what makes a cat meow (stimulus → response). Test each action and record the cat’s reaction. |
| What makes plants grow? | Try giving water to some, none to others.  Put some in sunlight, others in dark.  Use fertilizer in one group. | Compare growth based on light, water, and soil nutrients. |
| Does soil type affect plant growth? | Plant seeds in sand, clay, and garden soil. Water each equally and track growth. Measure height over 2 weeks. | Observe which soil type supports faster or healthier growth. |
| How do kites work? | Fly a kite in wind vs no wind. Change kite shapes and sizes. Use string lengths of different sizes. | Test how wind speed, kite shape, and string affect flying. |
| Does Pepsi have more carbonation than Coke? | Open both cans and measure bubble rise. Use a gas sensor or compare fizz time. Weigh after shaking and releasing gas. | Count fizz bubbles, measure sound or gas release to compare carbonation. |
| What makes something sink or float? | Put different objects in water. Compare objects with different materials. Try same size but different weights. | Record what floats/sinks and relate it to weight, volume, and density. |

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| Does the saltiness of water affect how fast it freezes? | Put salty water in a freezer. Use different salt amounts. Use a thermometer to check freezing point. | Compare freezing time of salty vs plain water. Measure how long each sample takes to freeze. See if salt lowers the freezing point. |
| Does the temperature of the air impact how high a basketball bounces? | Heat a basketball and drop it. Cool a basketball in a fridge. Use a ruler to measure each bounce. | Compare bounce height in warm air. Measure bounce height in cold air. Record how air temperature affects bounce. |
| Can I design a device that attaches my skateboard to my bike? | Build a prototype of the device.  Try riding the bike with the board attached.  Turn and stop with the device on. | Test if it connects the skateboard securely.  Check if it works safely during motion.  See if it affects movement and control. |
| Does the amount of TV people watch affect their school attendance? | Ask students how much TV they watch. Survey kids over a week. Keep track of attendance and TV time. | Compare with number of school days missed. Look for patterns in TV time vs attendance. Check if more TV means more absences. |
| Can different scents in the room affect how long people sleep? | Use lavender in the room for a week. Try different scents each night. Track sleep time using a sleep app. | Compare sleep hours with and without scent. See which scent leads to longer sleep. Use data to find scent with best results. |
| How do batteries work? | Connect a battery to a light bulb. Use different battery types. Measure voltage with a voltmeter. | Does the bulb light up? Test energy output. Compare how long each battery powers the light. See how voltage affects device performance. |
| Why is the colour blue calming? | Show blue-colored room to a group. Measure heart rate in blue vs red rooms. Let people do tasks in blue rooms. | Ask how they feel — calm, relaxed, etc. Does blue lower heart rate or stress? See if they work more calmly or slowly. |
| Does using emojis make people happy? | Send messages with and without emojis. Survey people after emoji use. Measure smiles during text reading. | Ask which messages feel more cheerful. Do they report feeling happier? Use emoji and non-emoji texts and compare reactions. |
| Can I solve the problem of my grandfather finding his way to the bathroom at night without turning on a light? | Place glow-in-the-dark strips on the floor. Use motion-sensor night lights. Install a soft floor mat guide. | Does he reach safely without light? Do the lights help him navigate? Can he follow it to the bathroom? |
| Does eating school lunch affect how alert people are in their afternoon classes? | Ask students what they ate and rate their alertness. Compare test results before and after lunch. Observe students with and without lunch. | Look for patterns in food vs focus. Does lunch impact performance? Are lunch-eaters more focused? |
| Does having plants in a house reduce the carbon dioxide level in the house? | Use a CO₂ meter in a room without plants. Add plants to the same room. Try with different types/amounts of plants. | Record the levels. Measure CO₂ after some time. See which setup lowers CO₂ the most. |
| Can I create a backpack/umbrella combination? | Sketch a design of the combo. Build a small model/prototype. Test the comfort while walking. | Check if it looks practical. Try using it in light rain. Does it balance on your back? |
| Why am I awesome? | It's based on opinion. Everyone has a different idea of awesome. No scientific method to measure "awesome." | Ask friends what they like most about you. List your skills and talents. Track things you're proud of. |
| Why are Reese’s Cups so good? | Personal taste preference. Opinions vary by person. No one definition of "so good." | Survey people on what they like about them. Compare with other candies in taste tests. Ask people to rate flavor, texture, etc. |
| Why is our galaxy moving? | It's based on physics and astronomy. We can't "test" galaxy movement at home. Needs advanced tools. | Read scientific evidence from telescopes. Observe redshift data (from NASA or books). Use models or animations to understand movement. |
| Why do people watch TV? | People watch TV for different reasons. Motivations vary by age, mood, etc. Can’t measure a single cause. | Ask people why they watch and record answers. Survey different groups (kids, adults). Find common patterns in watching habits. |