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| **Statement** | **Testable/ Not Testable** | **How to Make it Testable** |
| What makes plants grow? | Not Testable Give water – plant grows?   Give sunlight – plant grows? | give the plant water and observe if it grows. You can also expose the plant to sunlight and check if it grows better than when kept in the dark. |
| Does soil type affect plant growth? | Testable Plant in clay – grows?  Plant in sand – grows less?  Plant in loam – grows better? | plant in clay soil and observe the growth rate, then compare it with planting in sandy soil to see if the plant grows differently. Additionally, planting in loam soil and checking if it grows better than the other types can help identify the effect of soil type. |
| How do kites work? | Not Testable based on wind Fly kite with no wind – does it lift? Fly kite in strong wind – does it rise? | fly a kite with no wind and observe if it lifts off the ground. Then, fly the kite in strong wind and see if it rises higher, indicating that wind is necessary for lift. |
| Does Pepsi have more carbonation than Coke? | Testable based on carbonation levels Open Pepsi – more fizz? Open Coke – less fizz? Measure bubble amount – compare? | open a can of Pepsi and check if it produces more fizz than Coke. Then, open a can of Coke and compare the amount of fizz with Pepsi. Measuring the bubble amount in both drinks and comparing them will help determine which has more carbonation. |
| What makes something sink or float? | Not Testable as if we must check all the objects Drop rock in water – it sinks? Drop wood in water – it floats? | drop a rock in water and observe if it sinks. Similarly, drop a piece of wood in water and see if it floats, helping to establish the concept of density and buoyancy. |
| Does the saltiness of water affect how fast it freezes? | Testable based on saltiness of water it freezes Freeze salty water – freezes slower Freeze fresh water – freezes faster | water with salt and check if it freezes slower than fresh water. Similarly, freezing fresh water and comparing the freezing time to the salty water will help establish how salt affects freezing. |
| Does the temperature of the air impact how high a basketball bounces? | Testable based on temp and pressure we apply it bounces Warm ball – bounces higher?  Cold ball – bounces lower? | test a basketball at room temperature and observe how high it bounces. Then, test a cold basketball and check if it bounces lower than the room temperature ball to see how temperature affects the bounce. |
| Can I design a device that attaches my skateboard to my bike? | Not Testable because we don’t have any clarity how to design and wt is output  Build connector – test if it holds?  Ride bike – skateboard stays attached? | build a connector to attach the skateboard to the bike and test if it holds securely during use. Riding the bike will also help check if the skateboard stays attached without any issues. |
| Does the amount of tv people watch affect their school attendance? | Testable by checking no of hrs of watching tv and attendance  Watch more TV – attend school less? Watch less TV – attend more? | if students who watch more TV tend to attend school less frequently. Comparing attendance between students who watch less TV and those who watch more can help you determine if TV-watching affects attendance. |
| Can differently scents in the room affect how long people sleep? | Testable based on type of scent we may test Use lavender – sleep longer? Use citrus – sleep shorter? | If use lavender scent in a room and check if the person sleeps longer or more peacefully. Similarly, using a citrus scent in the room and observing if sleep time decreases will help you test if room scents affect sleep. |
| When will fossil fuels run out? | Not Testable Study usage rate – predict depletion? Monitor fossil fuel reserves – time estimate? | study fossil fuel usage rates over time and make a prediction about when they will deplete. Monitoring global fossil fuel reserves and estimating how long they will last is another way to predict depletion. |
| How do batteries work? | Not Testable Insert battery – light bulb turns on? Use different types – observe power output? | insert a battery into a device and check if it powers on, confirming its function. Additionally, testing different types of batteries and comparing their power output will help you understand how batteries work. |
| Why is the colour blue calming? | Not Testable Show blue room – person feels calm? Show red room – person feels alert? | We can check a person to a blue-colored room and observe if they feel calmer compared to other colors. Similarly, exposing the same person to a red-colored room and observing if they feel more alert will help you determine if blue has a calming effect. |
| Does using emojis make people happy? | Testable Send emojis – user feels better? Read message with emojis – smile more? | sending a message with emojis and check if the user feels happier afterward. Reading a message with emojis and observing if the recipient smiles more can also help determine the emotional impact of emojis. |
| Can I solve the problem of my grandfather finding his way to the bathroom at night without turning on a light? | Not Testable Use glow stickers – can he reach safely? Add floor light – does he find it easily? | est this is to place glow stickers along the hallway and check if he can find the bathroom more easily. Adding a floor light and testing if it helps him find the bathroom will also help verify if these methods work. |
| Does eating school lunch affect how alert people are in their afternoon classes? | Testable Eat lunch – student stays awake? Skip lunch – student feels sleepy? | By observing students after they eat lunch to see if they stay awake and alert during class. Comparing students who skip lunch to those who eat will help determine if lunch affects alertness. |
| Does having plants in a house reduce the carbon dioxide level in the house? | Testable Add plant – CO₂ level drops? Remove plant – CO₂ level rises? | adding plants to a room and monitor the CO₂ levels over time to see if they decrease. Similarly, removing plants and observing if the CO₂ level rises will help test if plants impact CO₂ concentration. |
| Can I create a backpack/umbrella combination? | Not Testable Design a backpack-umbrella combination – does it function as intended? Test the combination – does the umbrella fit into the backpack and open properly? | To design a backpack with an umbrella attachment and then test whether it functions properly. I would also check whether the umbrella fits into the backpack and opens easily. |
| Why am I awesome? | Not Testable List personality traits – measure based on qualities like confidence, kindness, and intelligence.  Survey others on qualities they find impressive about you. | identify personality traits such as confidence, kindness, and intelligence and then assess these qualities. I could also survey others to rate which qualities make someone awesome and compare the results. |
| Why are Reese’s Cups so good? | Not Testable Conduct a taste test – compare Reese's Cups to other chocolate brands.  Rate satisfaction on taste, texture, and flavor of Reese's Cups vs. competitors. | conduct a taste test comparing Reese's Cups with other chocolate brands, then rate the satisfaction based on factors like taste, texture, and flavor preference. |
| Why is our galaxy moving? | Not Testable Study astrophysical data – observe galactic movement patterns. Analyze space-time data and cosmic motion – predict and track galaxy movement over time. | analyze astrophysical data to track the movement of the galaxy and its direction. Additionally, I could study cosmic motion and observe patterns over time to understand the cause of this movement. |
| Why do people watch tv? | Not Testable Because of all age groups Survey different age groups – measure reasons for watching TV (e.g., entertainment, news, relaxation).  Analyze TV-watching habits by mood, age, or interests. | survey a diverse group of people to measure their reasons for watching TV, such as entertainment, news, or relaxation. Then, I could examine how factors like age, mood, and preferences influence TV-watching habits. |