**🎯 Activity 1: 📦 Sort It Out – “Metal or Non-Metal?”**

**🎙️ Activity Introduction**

“Welcome to the sorting zone! You are about to become a material detective. Look closely at each item and decide whether it belongs to the metal bin or the non-metal bin. Think about how each item looks, feels, and behaves. Are they shiny? Strong? Good conductors? Let the sorting begin!”

**👨‍💻 Developer Guide Instructions**

* **Type**: Drag-and-Drop Matching Game
* **Interactive Bins**:
  + 🔧 Metals
  + 🍃 Non-Metals
* **Draggable Items (Images or Icons)**:
  + 🧲 Copper wire
  + 🧻 Aluminium foil
  + 🪛 Iron nail
  + 🔑 Metal key
  + 🧴 Plastic bottle
  + 🍷 Glass bottle
  + 🌲 Wooden stick
* **Interaction Mechanics**:
  + Click and drag items into bins.
  + Immediate visual feedback (correct = green border + “ding”, incorrect = red border + “buzz”).
  + Optional **"Check"** button for final feedback.
* **Audio Tags**:
  + 🔔 Correct: “Ding!”
  + 🔕 Incorrect: “Buzz!”
* **Feedback Rules**:
  + Display **specific correct** and **specific incorrect** facilitative feedback for each item dropped.
  + Show **general conclusion narration** after all items are sorted.

**📋 Learner Instructions (On-Screen)**

1. Drag each item to the bin you think it belongs in.
2. Decide based on the item’s **appearance**, **texture**, and **ability to conduct heat or electricity**.
3. Use the **Hint** button if you are not sure.
4. When all items are sorted, click **Check** to see your results.

**💡 Hint (On-Screen)**

* **Metals**: Usually shiny, strong, heavy, and good conductors of heat and electricity.
* **Non-Metals**: Often dull, brittle, lightweight, and poor conductors of heat and electricity.

**🧩 Activity Content – Item-by-Item Feedback Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Correct Bin** | **✅ Correct Feedback** | **❌ Incorrect Feedback** |
| 🧲 Copper Wire | 🔧 Metal | “Correct. Copper is shiny and an excellent conductor of electricity.” | “Try again. Copper is shiny and used to conduct electricity—this is a metal.” |
| 🧻 Aluminium Foil | 🔧 Metal | “Well done. Aluminium is lightweight, shiny, and a metal used in food packaging.” | “Check again. Aluminium is shiny and used for cooking and wrapping food—it is a metal.” |
| 🪛 Iron Nail | 🔧 Metal | “Yes. Iron is strong and magnetic—common features of metals.” | “Not quite. Iron is heavy, magnetic, and strong—a typical metal.” |
| 🔑 Metal Key | 🔧 Metal | “Correct. Most keys are made of durable metal alloys.” | “Incorrect. Keys are made from metal alloys because they are strong and durable.” |
| 🧴 Plastic Bottle | 🍃 Non-Metal | “Good job. Plastics are lightweight and do not conduct electricity.” | “Oops! Plastic is not shiny or conductive. It belongs in the non-metal bin.” |
| 🍷 Glass Bottle | 🍃 Non-Metal | “Correct. Glass is brittle, transparent, and non-metallic.” | “Not quite. Glass may look shiny, but it is fragile and not metallic.” |
| 🌲 Wooden Stick | 🍃 Non-Metal | “Well done. Wood is a non-metal because it does not conduct heat or electricity.” | “Incorrect. Wood is an insulator and belongs in the non-metal bin.” |

**🎙️ Activity Conclusion**

“Great job sorting! You now understand how to identify metals and non-metals based on their properties like conductivity, shininess, and strength. Keep observing the materials around you—they all have a story!”