**🎯 Activity 1: ✅❌ Table Sort – "Pros and Cons of Water Types"**

**🎙️ Activity Introduction**

"Water can be helpful or harmful depending on how we use it. Let us play a sorting game! Can you decide which facts about water are advantages and which are disadvantages? Drag carefully — every choice matters!"

**🛠 Developer Guide Instructions**

* Display an **interactive table** split into **two draggable zones**:
  + **Left column:** ✅ Advantages
  + **Right column:** ❌ Disadvantages
* Each fact about water is on a draggable **token card**.
* **Hover tooltips** show the “Hint” before a learner drops the card.
* Correct placements **glow green**; incorrect ones **shake with a red outline** and prompt retry.
* Allow learners to **rearrange until all are correct**.

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

* "Drag each fact about water into the correct column: ✅ Advantage or ❌ Disadvantage."
* "Think about how each fact affects health, cost, and daily use."
* "If a card shakes, try placing it in the other column."

**💡 Hints (On-Screen)**

* "Advantages are positive effects for health, taste, or cost."
* "Disadvantages are harmful effects or cause extra cost or damage."

**📜 Activity Content – Cards to Sort with Facilitative Feedback**

|  |  |  |  |
| --- | --- | --- | --- |
| **Card** | **Correct Column** | **✅ Correct Feedback** | **❌ Incorrect Feedback** |
| Provides calcium for bones | ✅ Advantage | "✅ Yes! Hard water supplies calcium, essential for strong bones." | "❌ That is not a disadvantage. Bones need calcium — this is a health benefit." |
| Wastes soap | ❌ Disadvantage | "✅ Correct. Hard water reacts with soap, reducing its effectiveness." | "❌ No, this wastes money and soap — it is not an advantage." |
| Tastes better | ✅ Advantage | "✅ Some prefer the mineral-rich taste of hard water." | "❌ Taste preference is not a drawback — try again." |
| Leaves scum on taps | ❌ Disadvantage | "✅ Yes! Scum is a buildup caused by hard water minerals." | "❌ Scum on taps damages plumbing — it is a disadvantage." |
| Protects against lead poisoning | ✅ Advantage | "✅ Right. A mineral coating in pipes can prevent lead from dissolving." | "❌ Actually, this is protective, not harmful — place it as an advantage." |
| Clogs water pipes | ❌ Disadvantage | "✅ Correct. Scale from hard water can block or damage pipes." | "❌ That damages plumbing — this belongs under disadvantages." |
| Safe for drinking | ✅ Advantage | "✅ Yes! Both hard and soft water are safe to drink under normal conditions." | "❌ This is not a disadvantage — safety is a benefit." |
| May leach lead (soft water) | ❌ Disadvantage | "✅ Good observation. Soft water may dissolve lead in old pipes." | "❌ This is a health concern — not an advantage." |
| Makes soap last longer | ✅ Advantage | "✅ Correct. Soft water lathers easily, reducing soap use." | "❌ No — this saves money and soap. Move it to the advantage side." |
| Damages boilers | ❌ Disadvantage | "✅ Well done. Hard water can cause scaling in heating systems." | "❌ This causes repair costs — definitely a disadvantage." |

**🎙️ Activity Conclusion**

"Well done! You correctly weighed the pros and cons of hard and soft water. Understanding both sides helps us make smart choices in daily life."