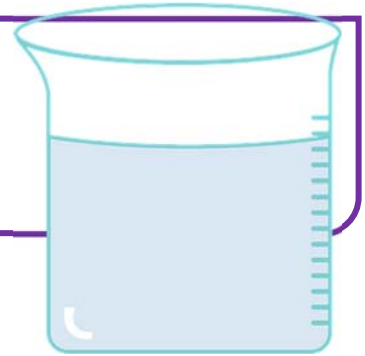


Name \_\_\_\_\_

## Extraction Check

**Directions:** Read both procedures. Then compare them to decide which is **safer**, **more accurate**, and **more efficient**.



### Procedure One: Salt Extraction by Heating

Students placed a beaker of salty water on a hot plate and heated it until the water evaporated. As the water boiled away, salt crystals began forming on the bottom and sides of the beaker. The beaker had to be watched carefully to prevent boiling over. After complete evaporation, the hot beaker was removed using insulated gloves. The crystals were scraped out once the beaker cooled.

### Procedure Two: Salt Extraction by Filtration and Air Drying

Students poured salty water through a coffee filter to remove any solid impurities. The filtered water was then placed in a shallow tray. The tray was set near a sunny window and left undisturbed for several hours. As the water slowly evaporated at room temperature, salt crystals formed on the tray surface. No heating equipment or protective gloves were required.

1. Which procedure is **safer**? List two reasons from the text.  
\_\_\_\_\_
2. Which procedure is **more accurate** for collecting pure salt? Explain using evidence.  
\_\_\_\_\_
3. Which procedure appears **more efficient**, and why?  
\_\_\_\_\_
4. Identify one **limitation** of each procedure.  
\_\_\_\_\_
5. If you had to recommend one method for a middle school lab, which would you choose and why?  
\_\_\_\_\_