

# Data Table 1 — Anion Testing

## Sample Data

|                                                                                              | Cl <sup>-</sup> anion                                | I <sup>-</sup> anion                                     | SO <sub>4</sub> <sup>2-</sup> anion | CO <sub>3</sub> <sup>2-</sup> anion                | Unknown ____ | Unknown ____ |
|----------------------------------------------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------|-------------------------------------|----------------------------------------------------|--------------|--------------|
| 6. <i>a.</i> AgNO <sub>3</sub><br><i>b.</i> HNO <sub>3</sub><br><i>c.</i> NH <sub>4</sub> OH | 1<br>a. white ppt<br>b. NR-still ppt<br>c. dissolves | 2<br>a. yellow ppt<br>b. NR-still ppt<br>c. NR-still ppt | 3<br>a. NR<br>b. —<br>c. —          | 4<br>a. tan ppt<br>b. fizzes and dissolves<br>c. — | 5            | 6            |
| 7. <i>a.</i> Ba(NO <sub>3</sub> ) <sub>2</sub><br><i>b.</i> HNO <sub>3</sub>                 | B<br>a. NR<br>b. —                                   | a. NR<br>b. —                                            | a. white ppt<br>b. NR-still ppt     | a. slight white ppt<br>b. dissolves                |              |              |
| 8. HNO <sub>3</sub>                                                                          | C<br>NR                                              | NR                                                       | NR                                  | Fizzes and bubbles                                 |              |              |
| D                                                                                            |                                                      |                                                          |                                     |                                                    |              |              |

Space for a repeat test (if necessary)

Record detailed observations inside the circles on the table. Record all colors that form. Record whether any gases evolve. If any solid precipitates form, use the abbreviation PPT. If no reaction at all occurs, use the abbreviation NR.

# Data Table 2 — Cation Testing

## Sample Data

|                       | Li <sup>+</sup> cation              | Na <sup>+</sup> cation | K <sup>+</sup> cation         | Ag <sup>+</sup> cation         | Ba <sup>2+</sup> cation | Fe <sup>3+</sup> cation       |
|-----------------------|-------------------------------------|------------------------|-------------------------------|--------------------------------|-------------------------|-------------------------------|
| 16. Color of Solution | 1<br>Colorless                      | 2<br>Colorless         | 3<br>Colorless                | 4<br>Colorless                 | 5<br>Colorless          | 6<br>Yellow                   |
| 17. KSCN              | B<br>NR                             | NR                     | NR                            | White ppt                      | NR                      | Deep-red solution             |
| 20. Flame test color  | C<br>Crimson red                    | Yellow                 | Violet                        | —                              | Light green             | —                             |
| Unknown testing       | D<br>Unknown —<br>Color of solution | Unknown —<br>KSCN      | Unknown —<br>Flame test color | Unknown —<br>Color of solution | Unknown —<br>KSCN       | Unknown —<br>Flame test color |

Record detailed observations inside the circles on the table. Record all colors that form. Record whether any gases evolve. If any solid precipitates form, use the abbreviation PPT. If no reaction at all occurs, use the abbreviation NR.