

Total  
42



## Assignment 1-3: Chemistry Review

### Question

*What is a chemistry?*

6

1. Write a very brief story about your day in which you come across 2 solids, 2 liquids, and 2 gases of any pure substances.

---

---

---

---

---

---

---

---

---

---

1

2. How can matter change its state? You may use a picture to explain.

---

---

---

---

2

3. How is CO<sub>2</sub> gas different than the air in a room?

---

---

---

---

1

4. Circle the letter in the picture which shows two objects of equal mass.



A.



B.



C.

1

5. How would you find a ring that had been lost in a child's sandbox based on your knowledge of chemistry?

---



---



---

1

6. By what method is a vacuum cleaner separating dust from the carpet?

---



---

2

7. Vinegar is a solution composed of 5% acetic acid and 95% water. Which substance is the solute? Which substance is the solvent?

---



---

2

8. What is a salt and how is it formed?

---



---



---

4

9. Identify two ways you know a chemical reaction has occurred. Provide one example for each way of knowing.

---

---

---

---

---

---

---

---

1

10. A bee sting is painful because it contains a base. How could you neutralize a bee sting so that it is not painful using your knowledge of chemistry?

---

---

3

11. Which type of substance has a pH value of

a. more than 7 \_\_\_\_\_

b. less than 7 \_\_\_\_\_

c. exactly 7 \_\_\_\_\_

12. Your skin has a pH value of between 4 and 5.5. This pH prevents wrinkles and bacterial build up.

Acid

Neutral

Base



You have tested three soaps with a cabbage indicator.

Soap A is a dark bluish-pink colour.

Soap B is a light blue colour.

Soap C is a green colour.

3

Which soap would you use and why?

---

---

---

---

15

Which of the following are chemical reactions. Check any that apply.

- ☐ 1. Wax melting
- ☐ 2. Steel wool rusting
- ☐ 3. Glass breaking
- ☐ 4. Water freezing
- ☐ 5. Buffalo hide tanning
- ☐ 6. Salt deicing roads
- ☐ 7. Vinegar and baking soda combining
- ☐ 8. Fireworks burning
- ☐ 9. Carbon dioxide dissolving in water
- ☐ 10. Balloon popping
- ☐ 11. Milk and vinegar combining
- ☐ 12. Bread rising and baking
- ☐ 13. Gas burning in a car
- ☐ 14. An ice pack becoming cold when squeezed
- ☐ 15. An airbag fills with gas as it rapidly inflates