

UNIT 2 - MATTER & CHANGE

Key

CLASSIFICATION OF MATTER WORKSHEET

Check the appropriate categories for the substances listed below. All substances will have a check in more than one column.

Substance	Heterogeneous Matter	Homogeneous Matter	Pure Substance	Solution	Element	Compound	Mixture
lead metal			✓		✓		
table salt (NaCl)			✓			✓	
Kool-Aid drink		✓					✓
vegetable soup	✓						✓
oxygen gas			✓			✓ O ₂	
distilled water			✓			✓	
concrete		✓					
pure gold			✓		✓		
brass metal		✓					✓
flat 7-Up soda		✓					✓
raw egg (cracked open)	yolk + white ✓						✓
air		✓					✓
pure iron			✓		✓		
iron rust (Fe ₂ O ₃)			✓			✓	
soil	✓						✓
baking soda (NaHCO ₃)			✓			✓	

PHYSICAL VS. CHEMICAL CHANGES 1 WORKSHEET

Classify the following as being a chemical or a physical change.

1. Sodium hydroxide dissolves in water. *P*
2. Hydrochloric acid reacts with potassium hydroxide to produce a salt, water, and heat. *C*
3. A pellet of sodium is sliced in two. *P*
4. Water is heated and changed to steam. *P*
5. Potassium chlorate decomposes to potassium chloride and oxygen gas. *C*
6. Iron rusts. *C*
7. When placed in water, a sodium pellet catches on fire as hydrogen gas is liberated and sodium hydroxide forms. *C*
8. Evaporation. *P*

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HOMOGENEOUS VS. HETEROGENEOUS MATTER WORKSHEET

Classify the following as either homogeneous or heterogeneous.

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|---------------------------------|------------|----------------------------|-----------------|
| 1. flat soft drink (no bubbles) | Homo | 9. air (with smog) | Het Mix |
| 2. chocolate chip ice cream | Hetero | 10. paint | Homo Mix |
| 3. Italian salad dressing | Hetero | 11. alcohol | Pure Compound |
| 4. sugar | Pure Comp. | 12. iron | Pure Element |
| 5. soil | Het | 13. beach sand | Het. Mix |
| 6. aluminum foil | Pure | 14. pure air | Comp |
| 7. black coffee | Homo Mix | 15. chunky spaghetti sauce | Het Mix |
| 8. sugar water | Homo Mix | | |
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PURE SUBSTANCES VS. MIXTURES WORKSHEET

Classify the following as pure substances or mixtures.

- | | | | |
|--------------------------|-----------------|------------------------------|----------|
| 1. sodium | Pure | 11. iron | Pure |
| 2. water | Pure | 12. salt water | Homo Mix |
| 3. soil | Mix | 13. chocolate chip ice cream | Het Max |
| 4. coffee | Pure | 14. nitrogen | Pure |
| 5. oxygen | Pure | 15. eggs | Het Mix |
| 6. 70% isopropyl alcohol | Homo mix | 16. blood | Het Mix |
| 7. carbon dioxide | Compound - Pure | 17. table salt | Pure |
| 8. cake batter | Homo Mix | 18. nail polish | Homo Mix |
| 9. air | Homo Mix | 19. milk | Homo Mix |
| 10. chicken noodle soup | Het Mix | 20. soda | Homo Mix |