

NAME _____

INSTRUCTIONS: Write **E** in the blank if the material is *heterogeneous* or **O** if it is *homogeneous*.

- | | | | |
|--------------------------------|-------|-------------------------------|-------|
| 1. Wood | _____ | 6. Dirt | _____ |
| 2. Freshly-brewed black coffee | _____ | 7. Sausage-and-mushroom pizza | _____ |
| 3. Water | _____ | 8. Air | _____ |
| 4. Lucky Charms [®] | _____ | 9. Milk | _____ |
| 5. Salt | _____ | 10. Gold | _____ |

INSTRUCTIONS: Classify each of the following as an *element* [**E**], a *compound* [**C**], or a *mixture* [**M**].

- | | | | |
|------------------------|-------|----------------------------|-------|
| 11. Gold | _____ | 16. Air | _____ |
| 12. Water | _____ | 17. Carbon dioxide | _____ |
| 13. Seawater | _____ | 18. Silver | _____ |
| 14. Sugar | _____ | 19. Ice | _____ |
| 15. A chocolate sundae | _____ | 20. A Big Mac [®] | _____ |

INSTRUCTIONS: Classify each of the following properties of matter as *physical* [**P**] or *chemical* [**C**].

- | | | | |
|------------------------------|-------|------------------------------------|-------|
| 21. Color | _____ | 26. Reacts violently with chlorine | _____ |
| 22. Density | _____ | 27. Good conductor of heat | _____ |
| 23. Burns easily (flammable) | _____ | 28. Dissolves readily in water | _____ |
| 24. Not affected by acids | _____ | 29. Melts at 145 °C | _____ |
| 25. Boils at 450 °C | _____ | 30. Malleable | _____ |

INSTRUCTIONS: Classify each of the following changes in matter as *physical* [**P**] or *chemical* [**C**].

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|---------------------------------|-------|--------------------------------|-------|
| 31. Grinding chalk into powder | _____ | 36. Burning gasoline | _____ |
| 32. Dissolving salt in water | _____ | 37. Hammering gold into foil | _____ |
| 33. Dissolving zinc in acid | _____ | 38. Melting ice | _____ |
| 34. Tearing a piece of paper | _____ | 39. Digesting food | _____ |
| 35. Stretching copper into wire | _____ | 40. Making hydrogen from water | _____ |

INSTRUCTIONS: Classify each of the following as an *intensive property* [**I**] or an *extensive property* [**E**].

- | | | | |
|-------------------|-------|------------|-------|
| 41. Mass | _____ | 46. Color | _____ |
| 42. Density | _____ | 47. Volume | _____ |
| 43. Melting point | _____ | 48. Length | _____ |

Matter and Changes Worksheet Answers

1. O
2. O
3. O
4. E
5. O

11. E
12. C
13. M
14. C
15. M

21. P
22. P
23. C
24. C
25. P

31. P
32. P
33. C
34. P
35. P
36. C
37. P
38. P
39. P & C
40. C

41. E
42. I
43. I

6. E
7. E
8. O
9. E
10. O

16. M
17. C
18. E
19. C
20. M

26. C
27. P
28. P
29. P
30. P

46. I
47. E
48. E