

Matter and Energy- 5.5A(R); 5.5B(S); 5.5C(S)

Name _____

1. A teacher demonstrates an experiment which includes a wooden cube, water, and oil. Which diagram shows the molecules of a wooden cube? *solid*



Figure A

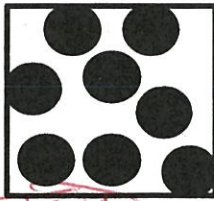


Figure B

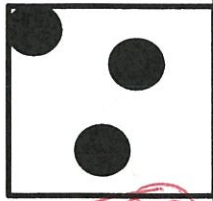


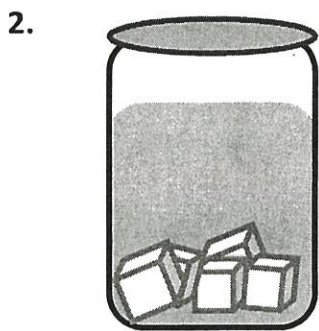
Figure C

- (A) Figure B (B) Figure A
(C) Figure C (D) None of them

3. A student placed an ice cube inside a glass beaker. The mass of the ice cube and the glass beaker was about 35 grams. After coming back from recess the student realized the ice cube was now a liquid. What was the mass of the liquid and the glass beaker?

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

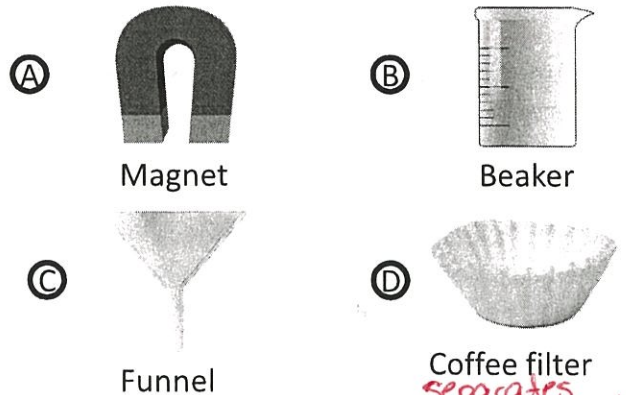
Record your answer in the boxes. Then fill in the bubbles. Be sure to use the correct place value.



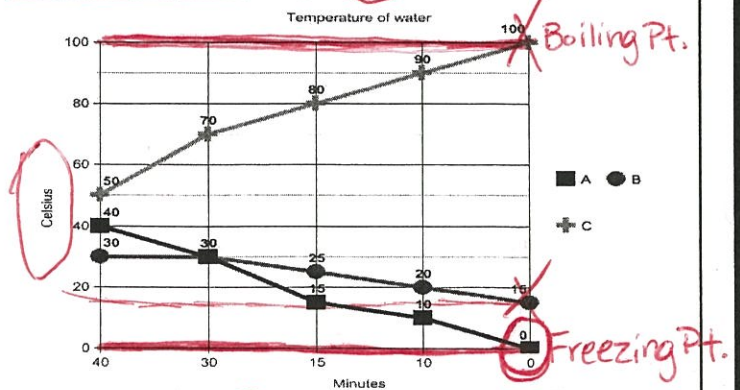
Observe the contents submerged under water at the bottom of the jar. What conclusion can be drawn from this picture?

- (F) The contents are ~~dissolving~~ and they are ~~less~~ dense than water. *float*
(G) The contents are a ~~gas~~ and they are ~~more~~ dense than water. *sink*
(H) Then contents are ~~solid~~ and they are ~~more~~ dense than water. *sink*
(J) The contents are a ~~solid~~ and they are ~~less~~ dense than water. *float*

4. Which scientific tool should a group of students choose to separate a mixture of iron filings and sand? *magnetic*



5. According to the graph, which line shows water reaching its freezing point? *0°C*



- (F) Line B (G) Line A
(H) None (J) Line C

Matter and Energy- 5.5A(R); 5.5D(S); 3.5C(S)

Name _____

6. Becky sorted objects into two groups. The table below shows how she recorded her data.

Group 1	Group 2
Copper penny	Styrofoam lid
Iron nail	Rubber Duck
Large round rock	Ping pong ball

solids (written vertically on the left of the table)
gas inside (written vertically on the right of the table)

Based on these results, by which physical properties did Becky group the objects?

- (A) Group 1 contains objects that are conductors of electricity; Group 2 is not. *Not rock*
- (B) Group 1 contains objects that are solids; Group 2 contains objects that are liquids.
- (C) Group 1 contains objects that are good conductors of heat; Group 2 is not. *Not rock*
- (D) Group 1 contains objects that sink in water; Group 2 contains objects that do not. *less dense*

7. Amanda is having a birthday party and needs ice for the drinks. She sets the ice out 5 minutes before the party begins to prevent it from melting too quickly. At what temperature will the ice begin to melt?

- (F) 100° C *Boiling*
- (G) 0° C *Melting*
- (H) 32° C
- (J) 212° C

8. Victoria is testing different materials to see which ones are the best conductors of electricity. She repeats the investigation several times. What is one advantage of Victoria repeating her investigation several times?

- (A) To increase accuracy and reliability of results
- (B) To decrease accuracy and reliability of results
- (C) To formulate a hypothesis ~~beginning~~
- (D) To organize collected data *beginning of experiment*
charts + graphs

9. Which of these is the best insulator of electricity? *stops flow*

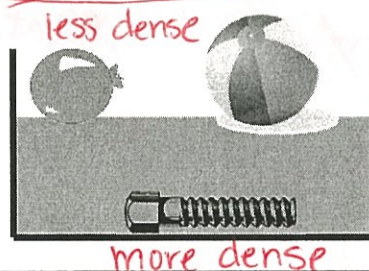
- (A) Steel bolt *Metal = C*
- (B) Metal paper clip *Metal = C*
- (C) Silver Dollar *Metal = C*
- (D) Cotton string *= I*

10. A teacher pours tea powder and water together in a glass. She stirs the mixture together to create a solution. Which of the following science tools should be used to separate this mixture?



- (F) sieve or strainer *Nonsoluble*
- (G) hot plate *Evaporation*
- (H) magnet *tea + water = nonmagnetic*
- (J) pan balance *finds mass*

11. Which object would be classified as having the greatest density?



- (A) beach ball
- (B) balloon
- (C) water
- (D) bolt

12. Which thermometer shows the freezing point of water in degrees Celsius?

