Causal Patterns in Density Rubric: Score Summary Sheet

Name _____ **Date**_____

Question #1: Two Cylinders		
Causal and Content Understanding	**Pretest**	**Post-test**
Level		
Misconceptions		
a. Thinks atoms have different sizes		
b. Confuses mass, weight, and density		
c. Thinks that the spaces between particles can vary a lot		
d. Thinks that the space between particles is air		
e. Does not think of bonds as electrical attraction		
f. Thinks of particles and object as separate entities		
g. Confuses more dense and less dense		
Quality of Explanation/Model		
Explanation		
Comprehensibility		
Completeness		
Models		
Notes:		

Question #2: Sinking and Floating		
Causal and Content Understanding	**Pretest**	**Post-test**
Level		
Misconceptions		
a. Thinks particles in same/different objects can vary in size		
b. Confuses mass, weight, and density		
c. Thinks that the spaces between particles can vary a lot		
d. Thinks that the space between particles is air		
e. Does not think of bonds as electrical attraction		
f. Thinks of particles and object as separate entities		
g. Confuses more dense and less dense		
h. Confuses density and viscosity		
Quality of Explanation/Model		
Explanation		
Comprehensibility		
Completeness		
Models		
Notes:		

Question #3: Heating Gold		
Causal and Content Understanding	**Pretest**	**Post-test**
Level		
Misconceptions		
a. Thinks that particles in metals cannot move		
b. Confuses mass, weight, and density		
c. Thinks that the spaces between particles can vary a lot		
d. Thinks that the space between particles is air		
e. Does not think of bonds as electrical attraction		
f. Thinks of particles and object as separate entities		
g. Thinks particles in same/different objects can vary in size		
h. Thinks that metals cannot change phase		
Quality of Explanation/Model		
Explanation		
Comprehensibility		
Completeness		
Models		
Notes:		

Question #4: Cutting an Object in Half: Volume?	Pretest	Post-test
Level		
Question #5: Cutting an Object in Half: Mass?	**Pretest**	**Post-test**
Level		
Question #6: Cutting an Object in Half: Density?	**Pretest**	**Post-test**
Level		

Total Scores:		
	Pretest	**Post-test**
Level		
	Pretest	**Post-test**
Quality of Explanation/Models		
Notes:		