

Heat/Energy/Temperature Facet Cluster:

1. They are all the same thing
2. That cold exists and can move from place to place like heat
3. That heat is “stuff” that flows
4. That kinetic energy is something other than the movement of molecules
5. That if the temperature goes down it must have lost energy
6. The distinction between heat transfers in physical versus chemical changes
 - a. Physical changes change temperature but not energy
7. objects favor a certain heat
8. heat is hot, but temperature can be hot or cold
9. temperature is a means of measuring heat
10. When mix hot thing with cold thing, they will both end up being hot
11. heat is a property of matter
12. energy is only associated with animate objects
13. link between energy & movement (does molecular movement count??)
14. energy spent vs. rechargeable energy
15. lack of movement in inanimate objects
16. energy as fuel that's used up
17. energy conservation
18. energy is a waste product

Goals

1. heat is a way that energy moves from one thing to another
2. kinetic energy is related to temperature which is proportional to how fast molecules are moving
3. the net energy in the system goes down for an exothermic reaction
4. the net energy in the system goes up for an endothermic reaction
5. understand that the energy comes from or goes out into the surroundings in a physical/chemical change