

Chemical Reactions



Physical Changes

- Do **not** change the type of matter
 - nothing new or different is formed
 - a physical change could be a change in:
 - mass
 - volume
 - density
 - change in state
 - color
 - shape

Size

Examples of Physical Changes

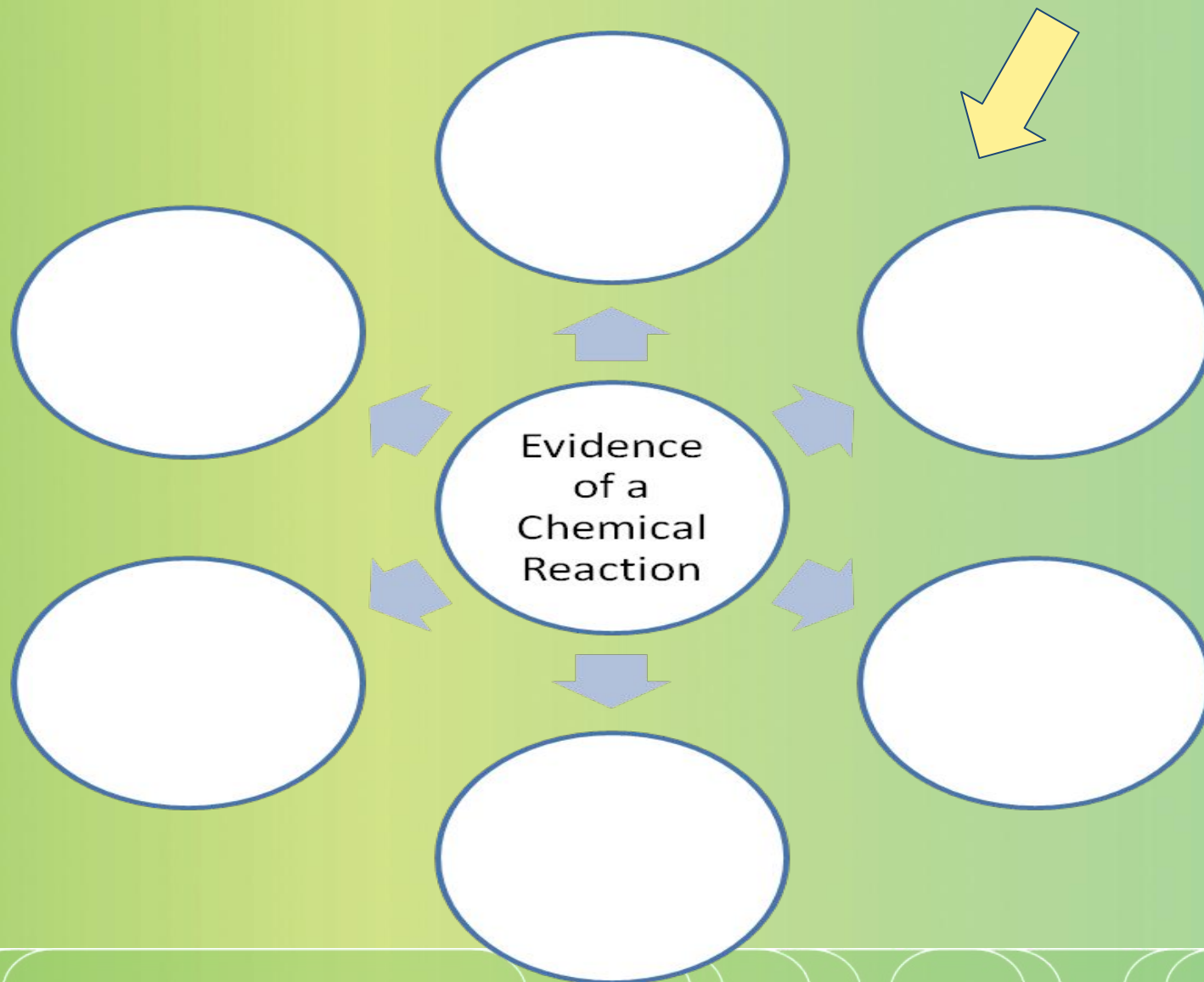
- boiling
- freezing
- dissolving
- breaking
- making a mixture
 - 2 or more types of matter (substances) mixed together
 - Not in specific amounts
 - Can be separated physically

CHEMICAL CHANGES

- A change that produces **new** substances
- **Properties** of the substances change

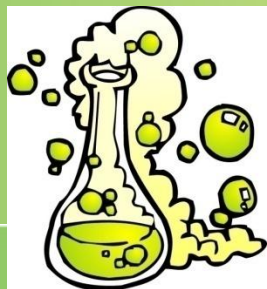


Create a Graphic Organizer Like the One Below:



Signs of a Chemical Change

- gas is formed
- change in odor
- change in temperature
- a precipitate forms
- light is produced
- change in color (sometimes)



EXAMPLES OF CHEMICAL CHANGE

- **Gas** - baking soda and vinegar
- **Color Change**- rust
- **Heat** (Temperature Change) – fireworks or combustion
- **Solid** (precipitate)- lead nitrate + potassium iodide = lead iodide

Gas is Formed

- Elephant's Toothpaste



Change in Color

- Steve Spangler – Color Change



Change in Odor

- [Rotten Egg Lab](#)



Change in Temperature

- Flammable Water



A Precipitate is Formed

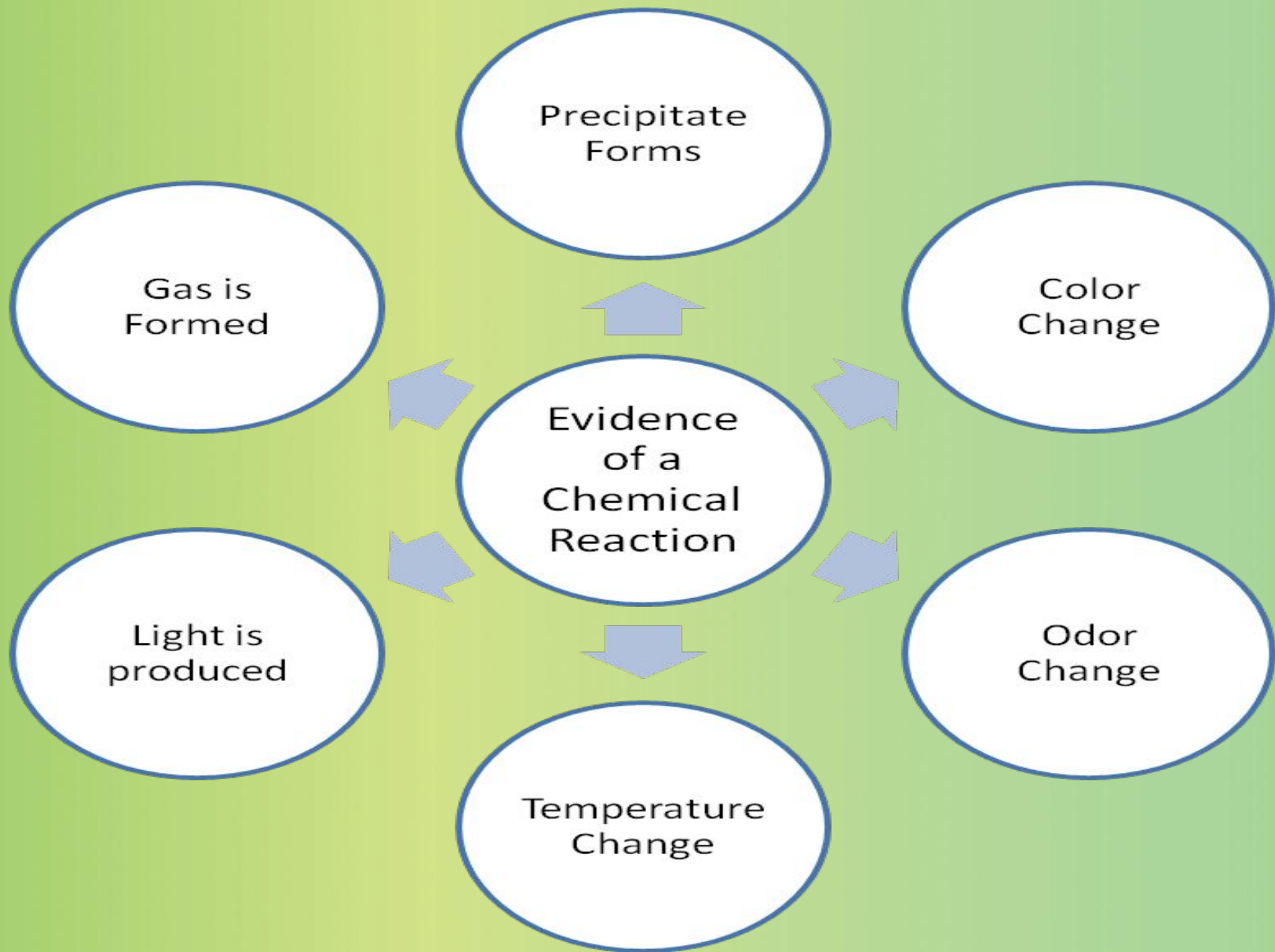
- Golden Rain



Light is Produced

- [Surprize Fire](#)





Key Points To Remember:

- Chemical changes produce new substances
- Properties of the substances change

