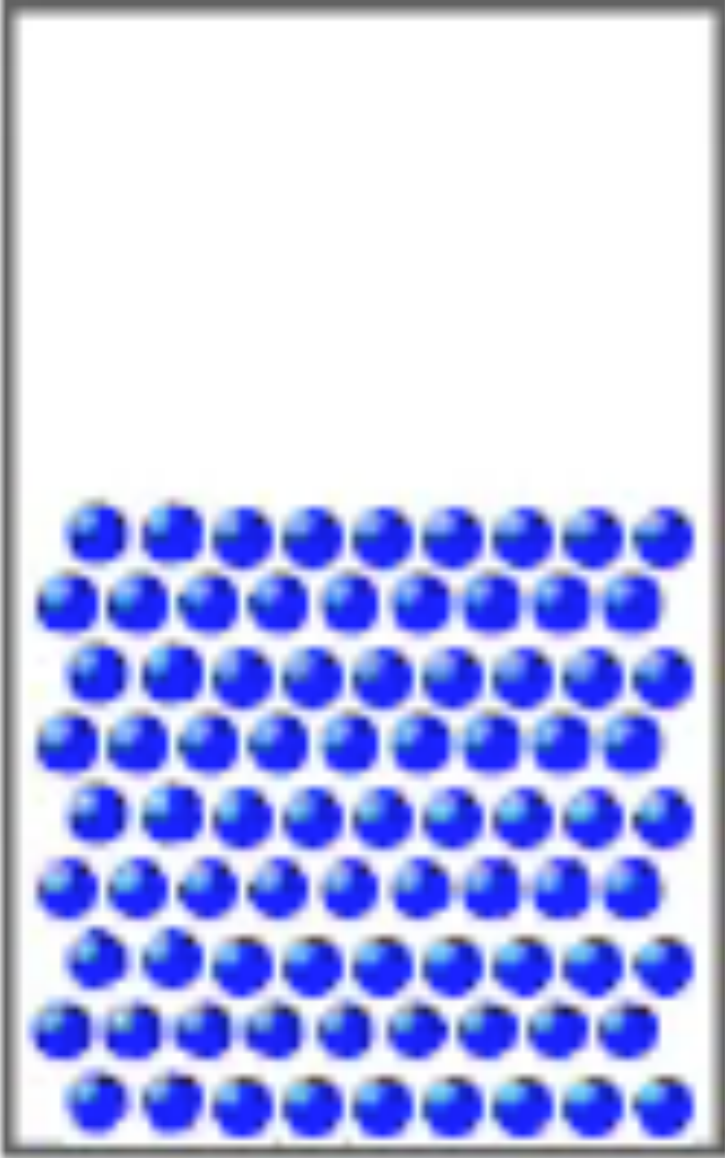
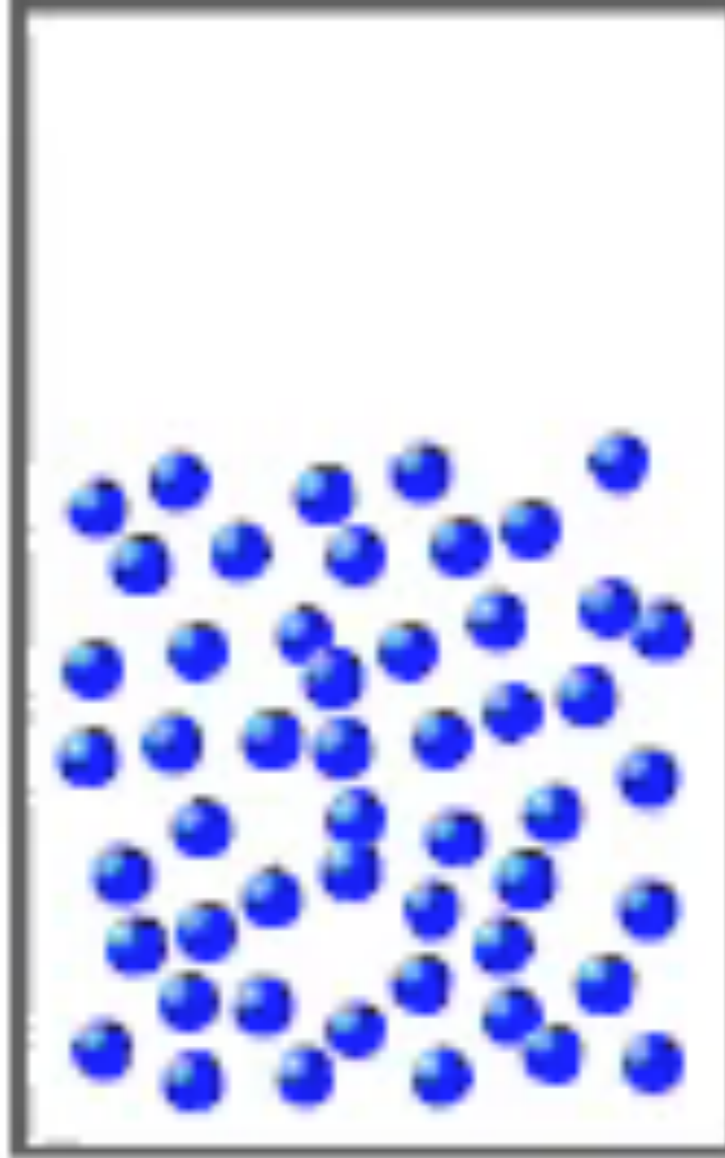


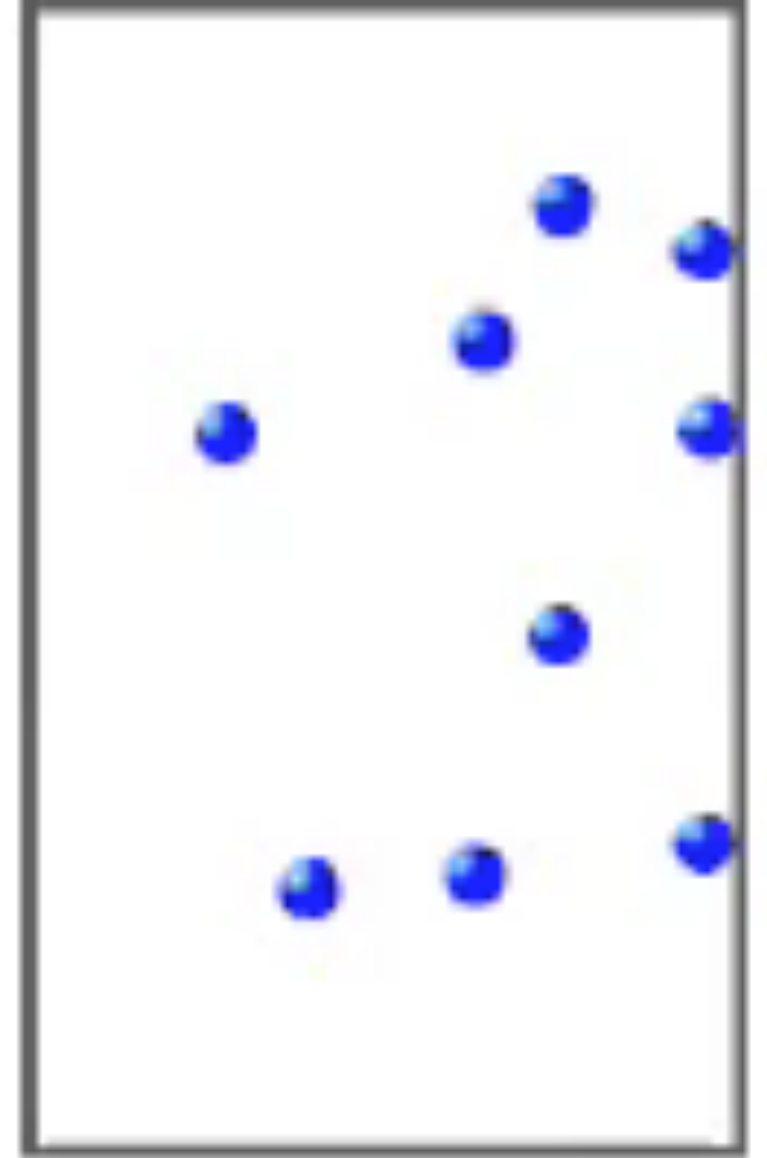
States of Matter



Solid



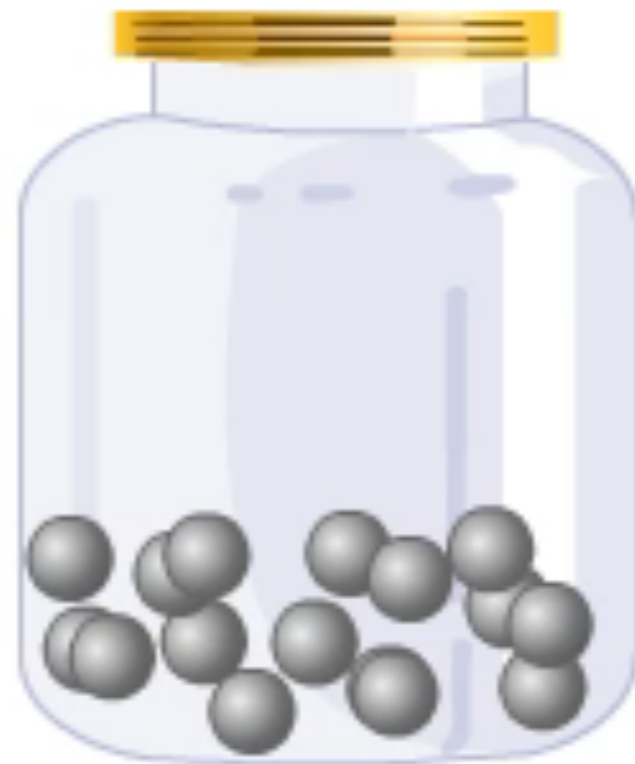
Liquid



Gas



Solid



Liquid



Gas

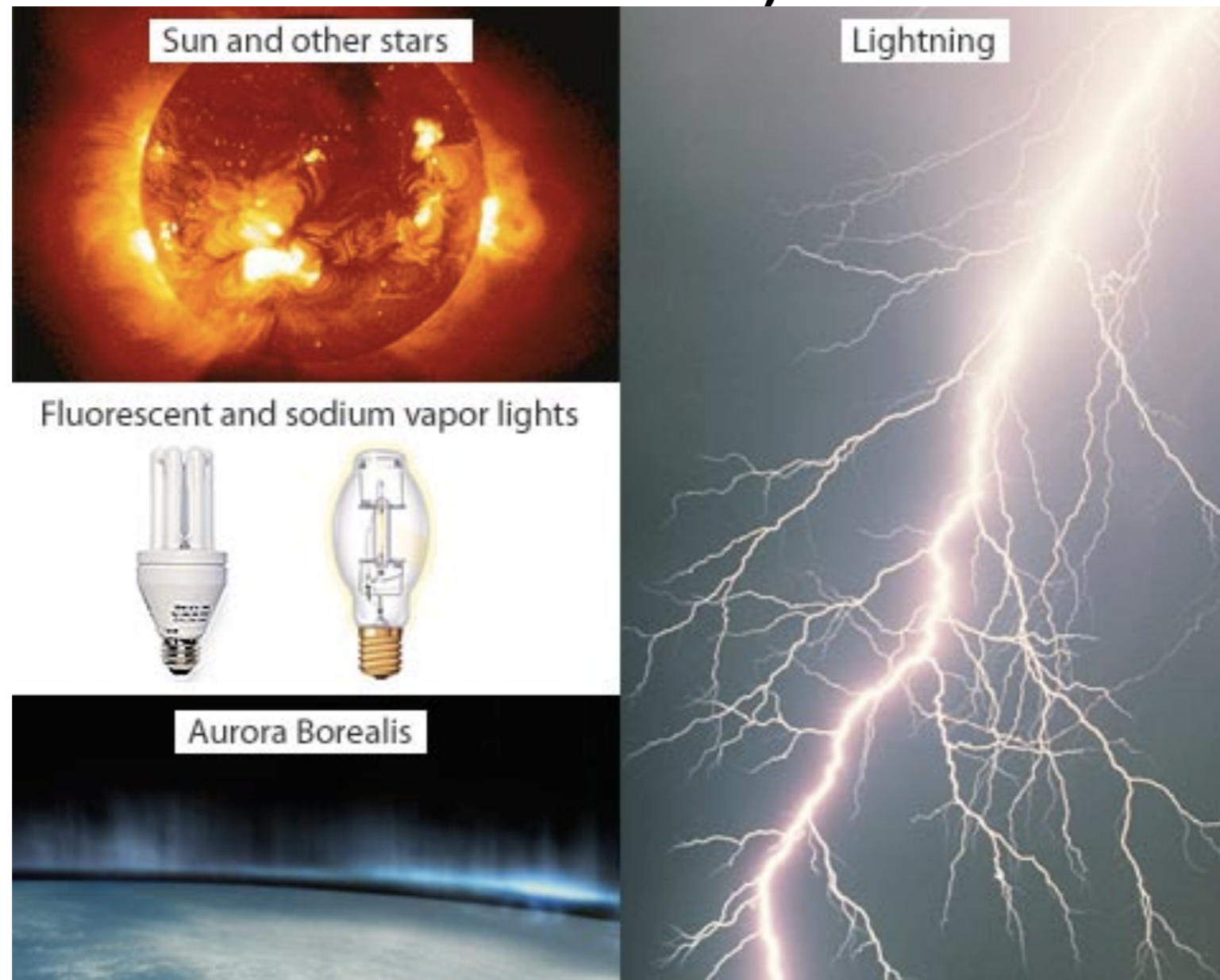


state of matter	volume	Shape	Particles
Gas	indefinite	indefinite	<ul style="list-style-type: none"> • particles move randomly and fast • low attraction of particles • fill container completely
Liquid	definite	indefinite	<ul style="list-style-type: none"> • particles can flow past each other • medium attraction and speed • take shape of container
Solid	definite	definite	<ul style="list-style-type: none"> • particles tightly bonded together, high attraction • very slow vibrations

*definite = defined *indefinite = can change

Plasma

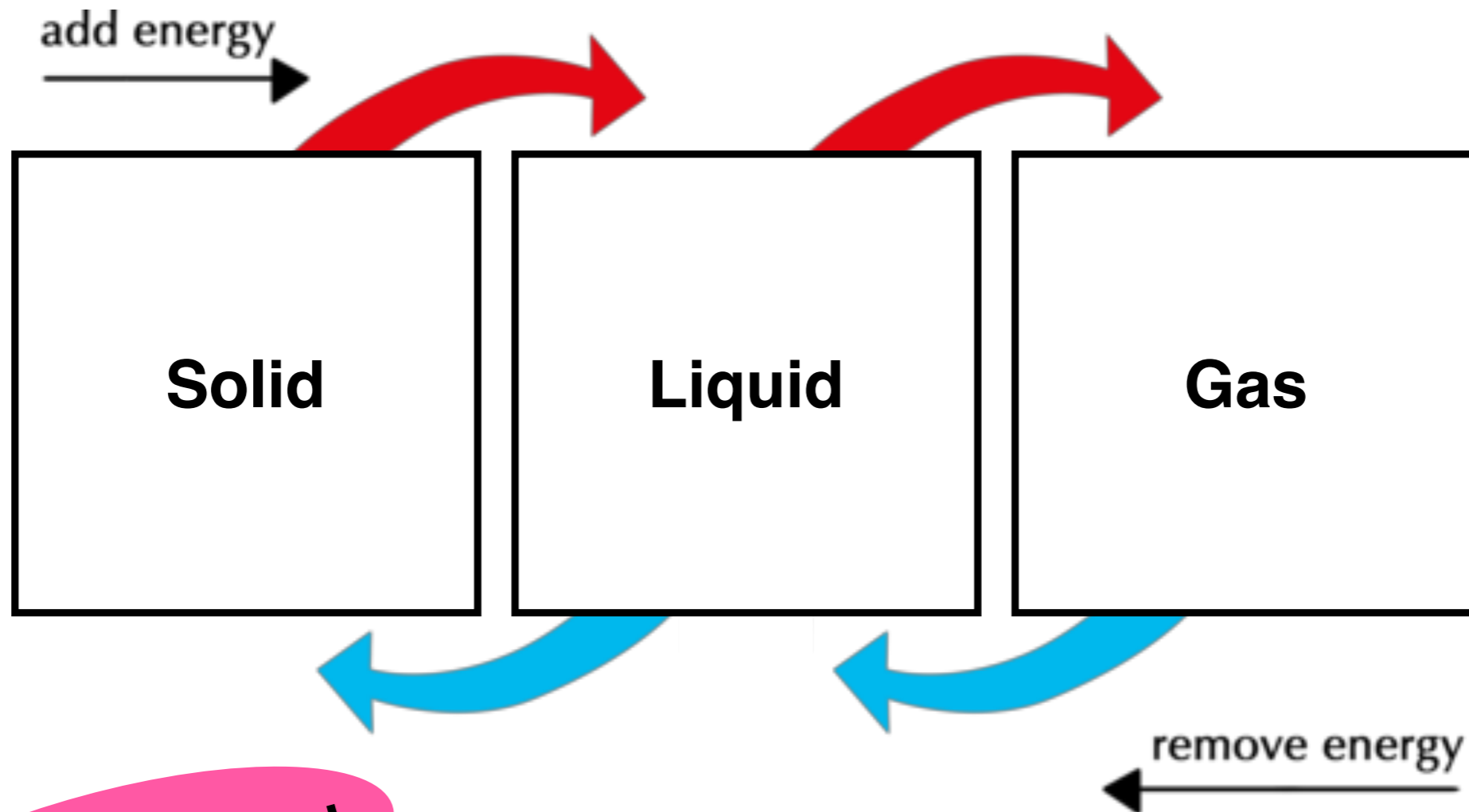
Plasma is another state of matter where a high energy gas has atoms that have lost their structure (rare on earth, common in the stars)



Energy and Changes in Matter

- Energy: The ability to do work
- Work: Force x Distance
- Energy is always involved in any physical or chemical change, often in the form of heat loss or gain

Endothermic reactions:
Heat is absorbed



Draw this diagram!

Exothermic reactions:
Heat is released

