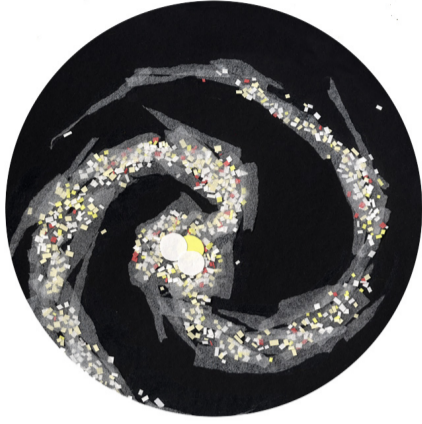
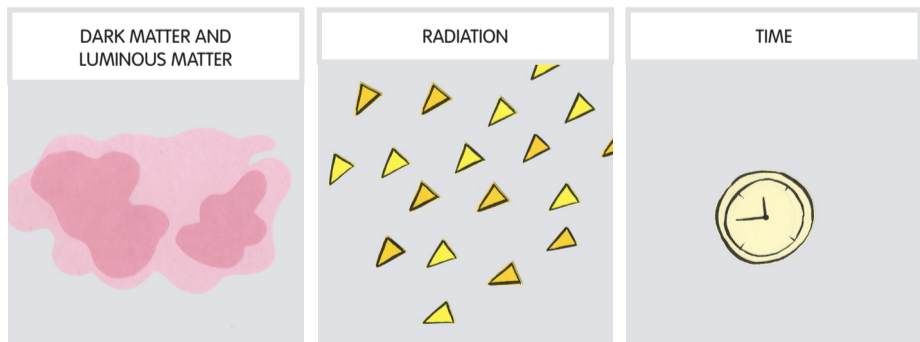


## GALAXY

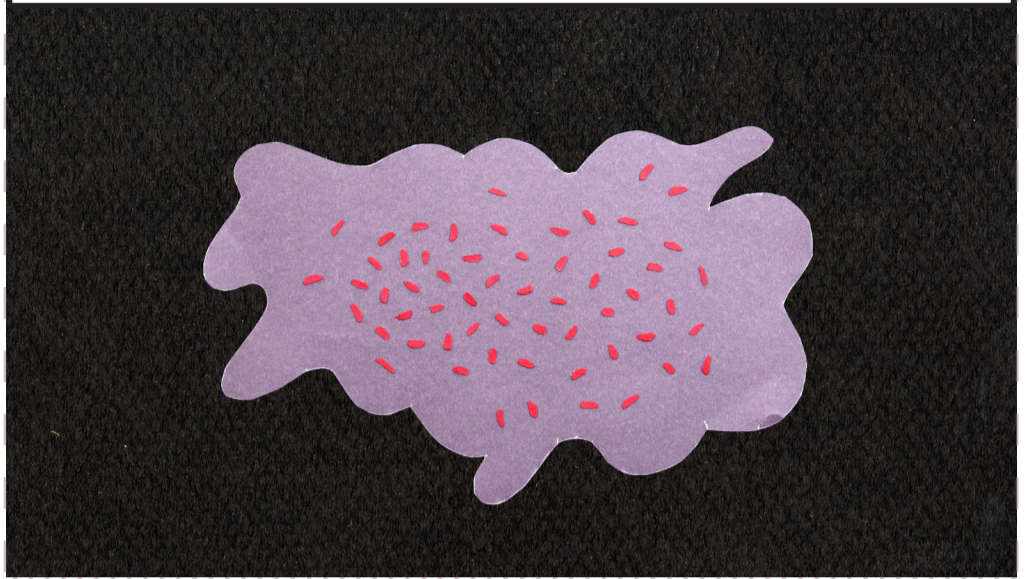


### TO MAKE A SPIRAL GALAXY, WE NEED :

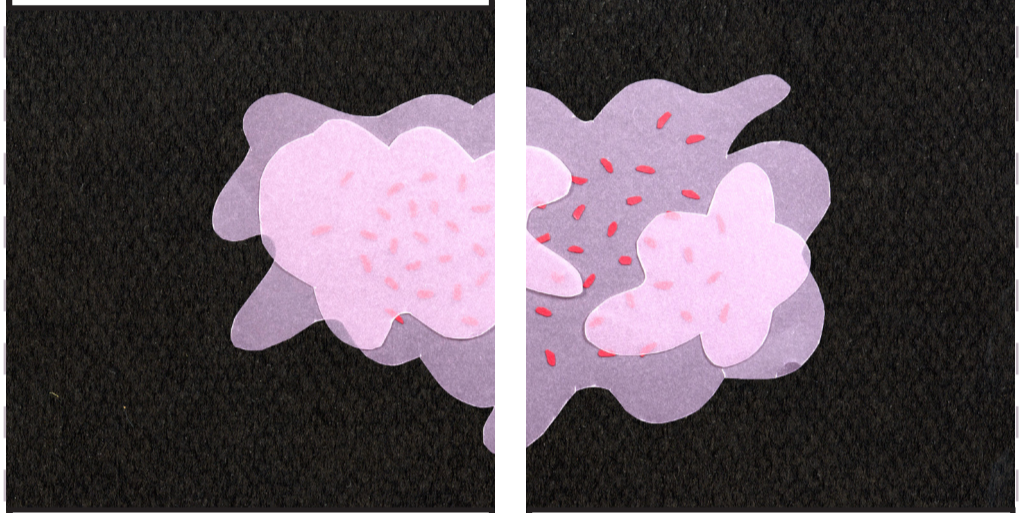


GLUE HERE

IT ALL BEGAN A FEW 13.8 BILLION YEARS AGO, IN THE PRIMORDIAL GAS OF THE UNIVERSE. THIS GAS CONTAINED LUMPS, THEREFORE IT WAS NOT HOMOGENEOUS.



GAS IS THE STATE MATTER TAKES ON.



IT IS MADE UP OF ORDINARY **LUMINOUS MATTER**, AKIN TO THAT OF WHICH WE ARE MADE.

AND OF UNOBSERVABLE **DARK MATTER**, HYPOTHESIZED BY SCIENTISTS.

GAS GRAVITY IS THE DOMINANT INTERACTION HERE.



GRAVITY IS A BIT STRONGER IN THE LUMPS BECAUSE THEY ARE DENSER.



BECAUSE THEIR GRAVITY IS STRONGER



THE LUMPS WILL ATTRACT NEIGHBOURING MATTER

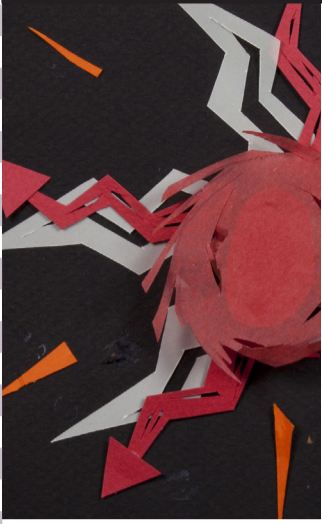


THEREFORE GAINING MORE AND MORE DENSITY.



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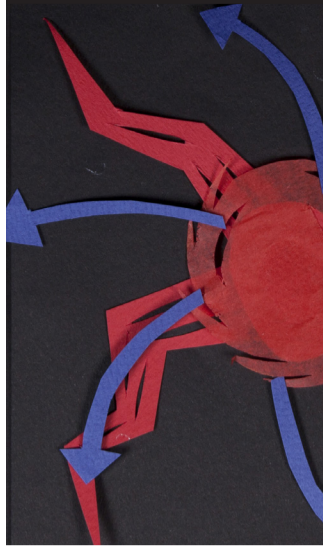
ACCELERATING THE PROCESS OF COLLAPSE



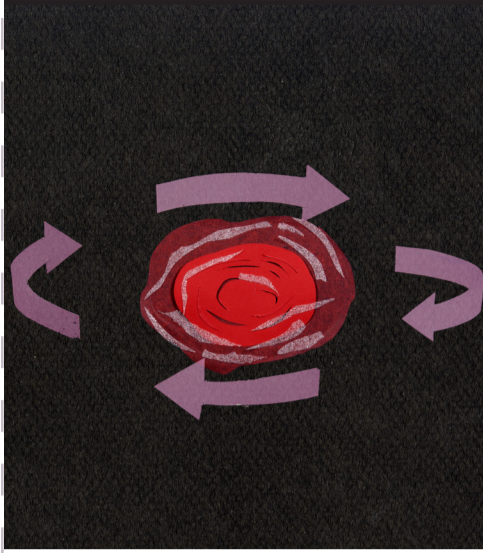
WHICH IN TURN HEATS UP THE GAS



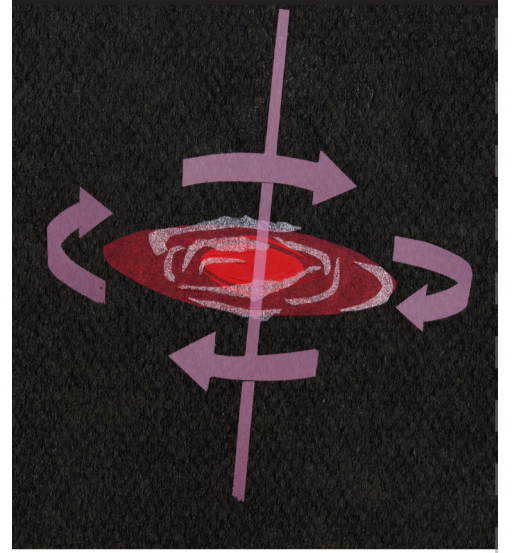
WHICH WILL RADIATE ENERGY.



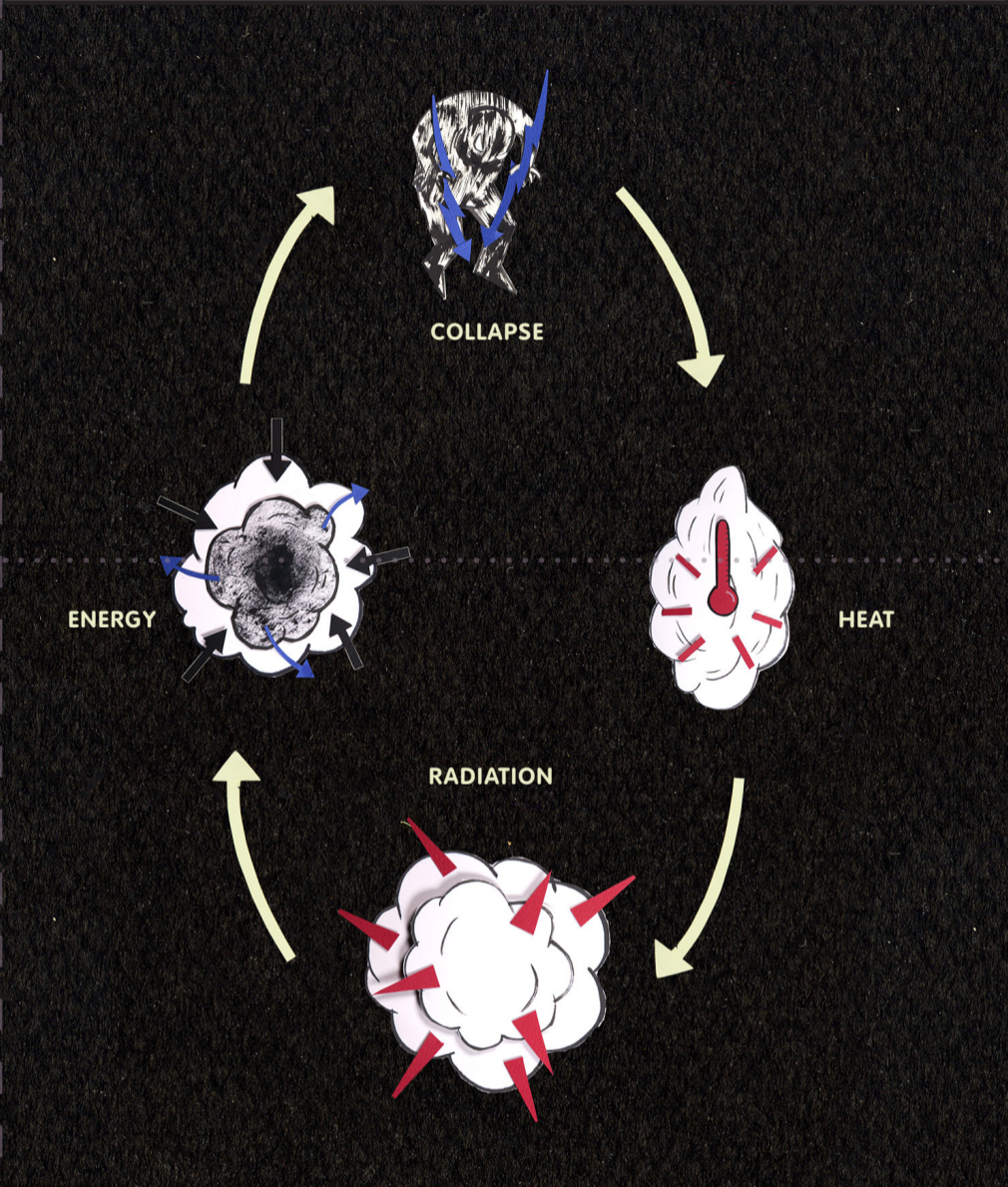
ROTATING GALAXIES ARE SUBJECTED TO THE CENTRIFUGAL FORCE



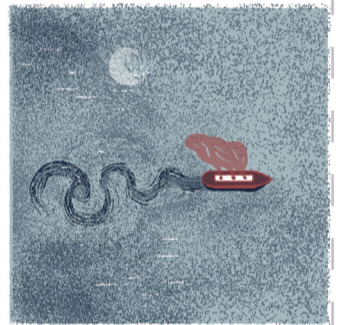
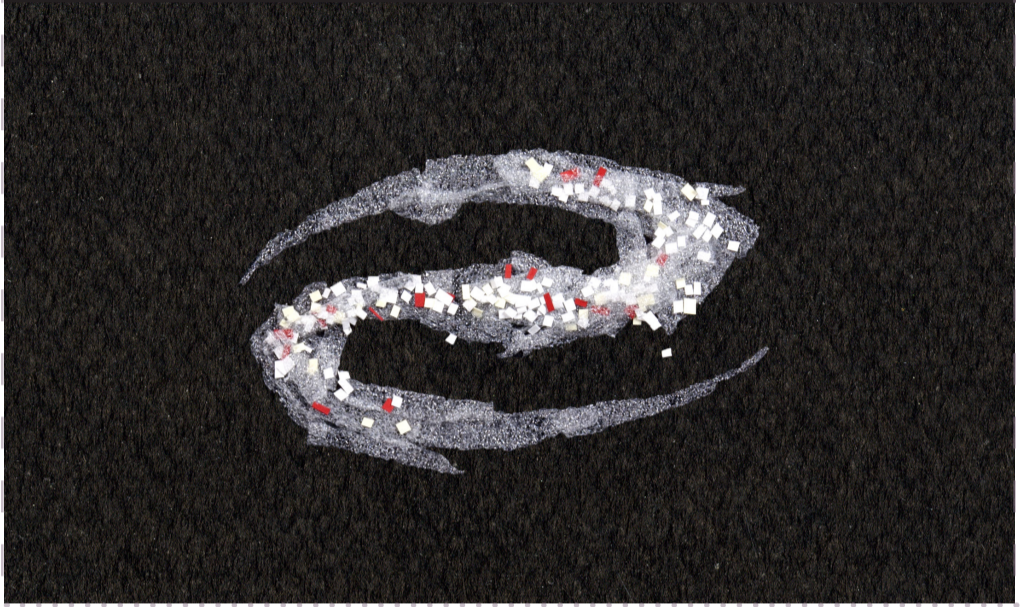
WHICH WILL FLATTEN THEM DOWN TO A THIN DISK.



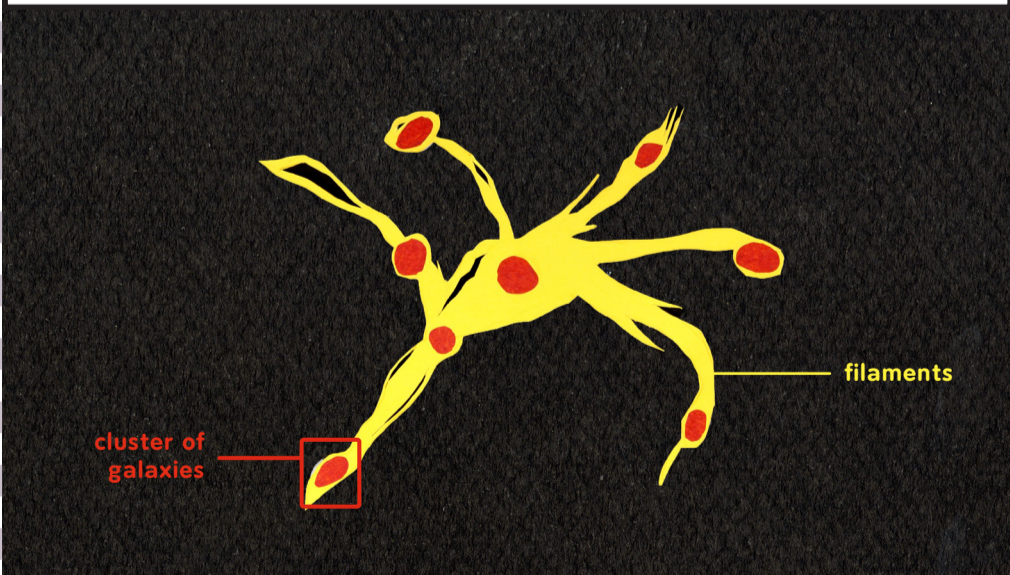
WHEN A GAS COLLAPSES, IT GETS HOTTER. WHEN IT GETS HOTTER, IT RADIATES. WHEN IT RADIATES, IT LOSES ENERGY. WHEN IT LOSES ENERGY, IT COLLAPSES...



THIS IS HOW, STEP BY STEP, SPIRAL GALAXIES ARE FORMED !



THE IMPRINT LEFT BY THE COLLAPSE CREATES FILAMENTS, AND SO EACH LUMP IS AT THE ORIGIN OF WHAT IS NOW A CLUSTER OF GALAXIES.



GLUE HERE