




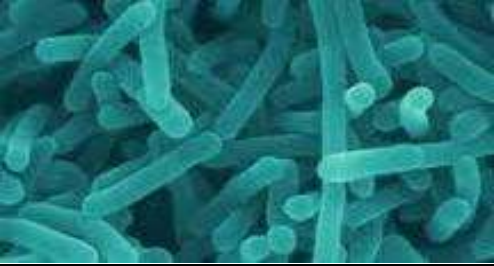













































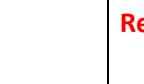







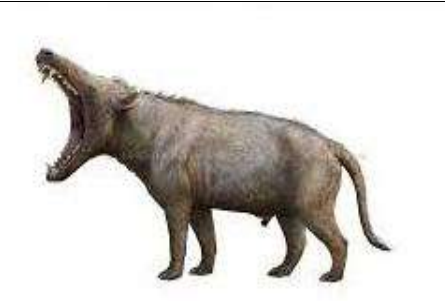


























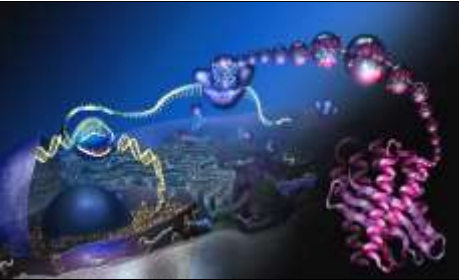







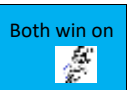















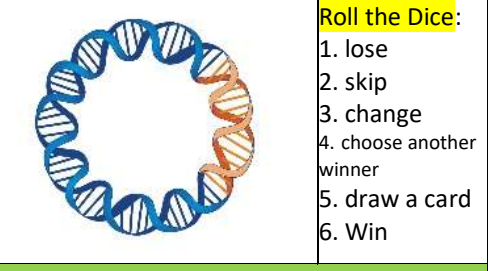








	Purple Bush Bean <i>Macroptilium atropurpureum</i>			Firmicutes Bacteria Cell Membrane			Black Butcherbird <i>Melloria quoyi</i>	
Control: this plant keeps colonies of bacteria inside its cells that take Nitrogen from the air and give it to the plant			Infiltration: include tetanus bacteria that grow inside the body and release a toxin that blocks neurons, causing muscles to constantly contract.			Weapon: hook-like tooth is used to catch and fatally sever the bodies of insects, lizards and small mammals.		
								
Growth: 4 Weapons: 8 Mutualism: 5 Resilience: 3 (20m)			Growth: 13 Weapons: 5 Mutualism: 2 Resilience: 1			Speed: 10 Weapons: 9 Mimicry: 2 Defence: 1		
Both Win 	Reproduction 29	Symbiont 12		Reproduction 32	Reproducer 16		Reproduction 2	Predator 10
	Bar Shouldered Dove Primavera De Filippi		DNA The RNA world				Bar Shouldered Dove <i>Geopelia humeralis</i>	
Speed: when these birds take flight their wings make a whistle – it is a warning to other pigeons			All: DNA is like a list of all the body parts (proteins) an organism needs to construct itself.			Speed: If you get the chance, put a pigeon on a moving treadmill and watch its head stand still		
								
Speed: 11 Weapons: 6 Mimicry: 2 Defence: 1			Win on all Defence: 7			Speed: 12 Weapons: 6 Mimicry: 2 Defence: 1		
	Reproduction 2	Traveller 10		Reproducer 21		Reproduction 2	Traveller 10	
	Hedgehog Sea Horse Chris Curran			Sargassum Frogfish Kylie Matthyssen & Nicole Paul			Yellow Wattle <i>Acacia flavescens</i>	
Mimicry: Male seahorses carry the young & in this species the female has large territories and has several males within it.			Mimicry: the fins can grip like fingers so that it moves in unison with the floating seaweed, completely undetectable.			Chemical: In times of drought, many Acacia species concentrate high levels of the toxin Hydrogen cyanide in their leaves		
								
Speed: 2 Weapons: 3 Mimicry: 6 Defence: 1			Speed: 2 Weapons: 10 Mimicry: 13 Defence: 1			Growth: 4 Weapons: 9 Mutualism: 5 Resilience: 3 (20m)		
	Reproduction 30	Predator 7	Both win 	Reproduction 15	Predator 16	Both win 	Reproduction 30	Symbiont 18

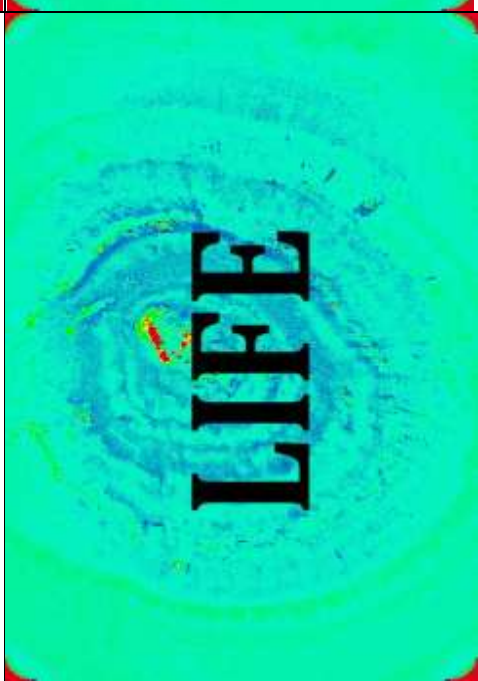
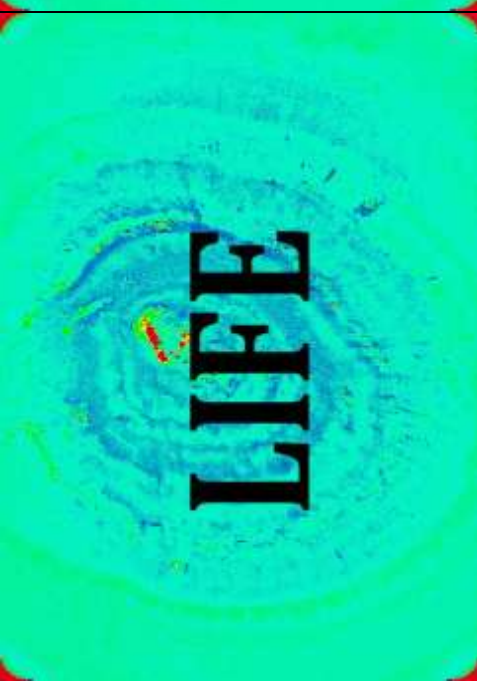
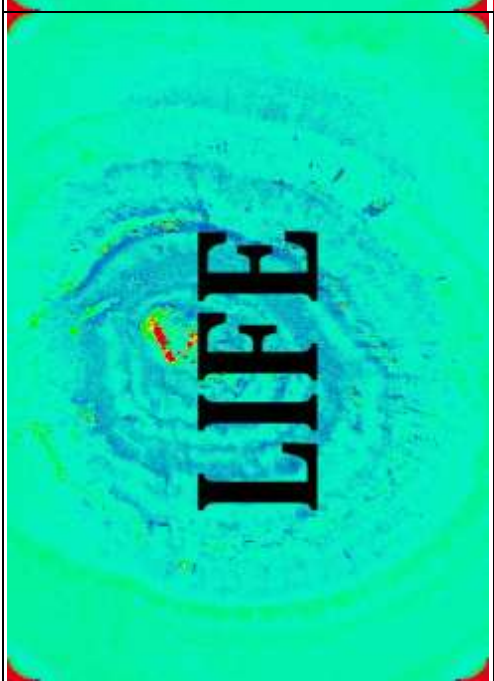
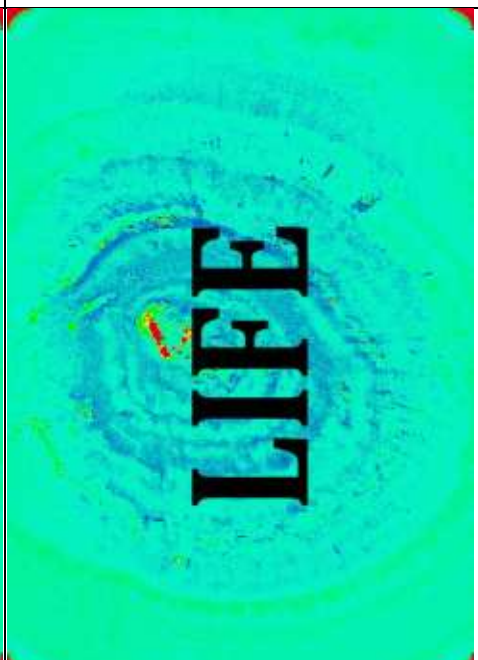
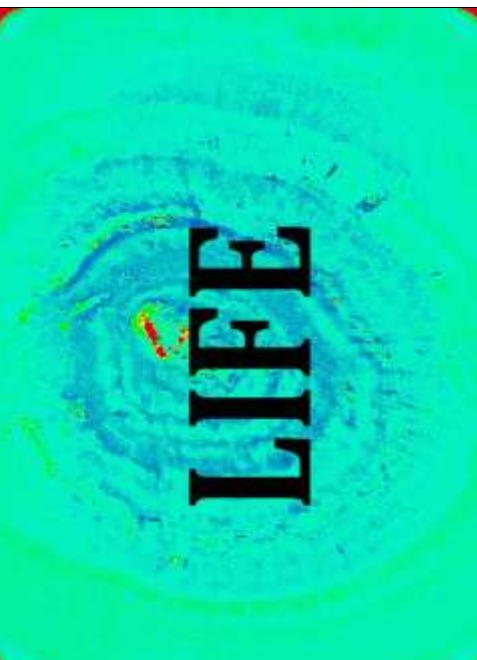
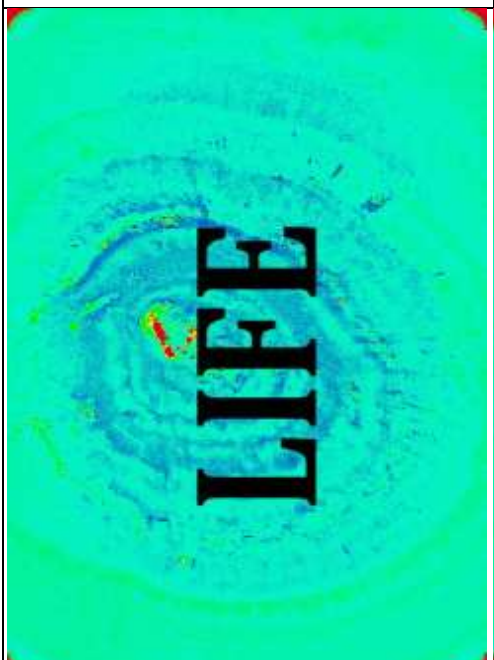
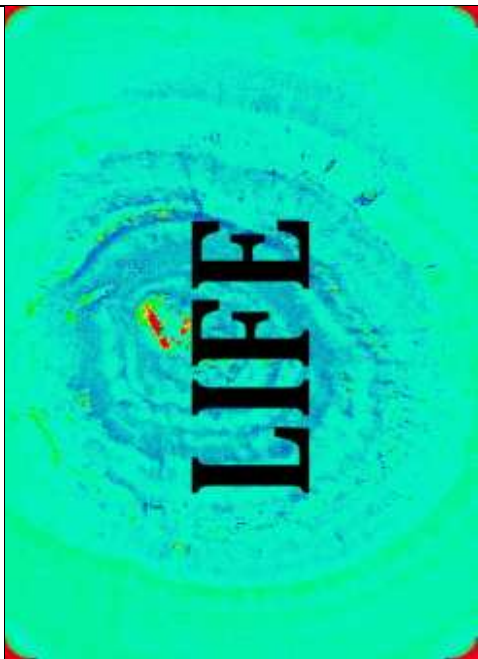
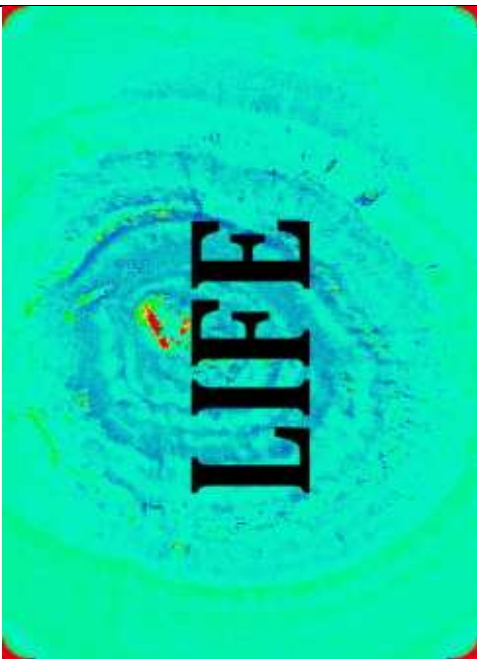
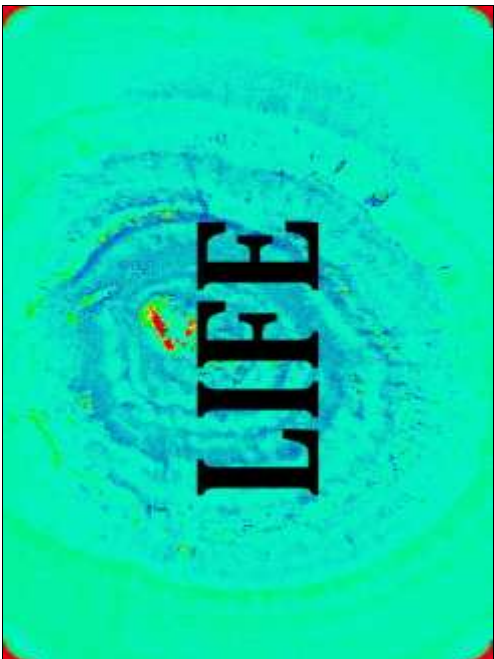
	Pom Pom Red Algae <i>Jania Sp.</i>		Demon Face Jewel Beetle <i>Castiarina spp.</i>		Longfin Eel <i>Anguilla reinhardtii</i>	
Chemical: Red Algae uses phycobilin to photosynthesize energy from green & blue light		Armour: the sparkling colour comes from layers of semi-transparent hardened skin, bending & reflecting light.		Change: eels 'smolt' when they go to sea, drink more water, produce less urine & the gill pumps shift into reverse, pumping sodium out instead of in.		
						
Growth: 5 Weapons: 6 Mutualism: 1 Resilience: 2		Speed: 9 Weapons: 5 Mimicry: 1 Defence: 2		Speed: 2 Weapons: 8 Mimicry: 4 Defence: 2		
Reproduction 31		Energizer 11		Reproduction 30		Energizer 11
Reproduction 43		Traveller 9				
	White Cedar <i>Melia azerdarach</i>		Red Bass <i>Lutjanus bohar</i>		Leaf Spot <i>Cercospora</i>	
Chemical: The compounds in the leaves of this tree makes animals lose their hunger. So, they stop eating it.		Mimicry: The Juvenile Red Bass looks like a Damselfish, a harmless planktivore that will drift up to smaller naïve fish and swallow them.		Infiltration: The grey centre of these spots are a field of sharp needle-like mushrooms that grow into the mouths of leaves.		
						
Growth: 3 Weapons: 4 Mutualism: 3 Resilience: 3		Speed: 4 Weapons: 7 Mimicry: 2 Defence: 1		Growth: 11 Weapons: 8 Mutualism: 1 Resilience: 2		
Both Win: 		Reproduction 36		Energizer 15		
Reproduction 35		Predator 11				
Reproduction 42		Predator 17				
	The Pale Frog <i>Litoria pallida</i>		Ancient Cyanobacteria Electron Transport	Wins on Energizer		Dory Yattaniah Mye
Senses: This frog is only found in Australia, in seasonally wet areas		Chemical: Iron proteins Hemoproteins move electrons in Chlorophyll & Mitochondria, building charged molecules & giving energy to all organisms.		Weapon: A venomous retractable spine highlighted in warning yellow.		
						
Speed: 9 Weapons: 4 Mimicry: 4 Defence: 1		Growth: 13 Weapons: 3 Mutualism: 1 Defence: 1		Speed: 6 Weapons: 10 Mimicry: 2 Defence: 4		
		Reproduction 25		Predator 13		
Reproduction 50		Energizer 12				
Reproduction 41		Survivor 14				

	Reticulated Dascyllus			Mongolian Wolf Hippo			Birds Nest Mushroom	
Intelligence: Have a reflective dorsal patch, only seen at short range and is used for communication.			Weapon: Largest terrestrial mammal jaws. Thought to crush marine turtle shells.			Infiltration: A drop of rain will cause them to split open and shoot out bolas lasso-like spores.		
								
Speed: 8 Weapons: 3 Mimicry: 4 Defence: 2			Speed: 2 Weapons: 19 Mimicry: 1 Defence: 2			Growth: 11 Weapons: 1 Mutualism: 5 Resilience: 3		
	Reproduction 30	Symbiont 11		Reproduction 1	Predator 8		Reproduction 30	Traveler 12
	Koel			Leaf Slug Paul Carr			Cyanobacteria	
Mimicry: lay eggs in the nest of other birds that then raise the Koel chick as if it were their own.			Control: eats plants & keeps their photosynthetic cells functional so that they can get energy from the sun.			Chemical: When they arrived, they changed the atmosphere by filling it with Oxygen		
								
Speed: 9 Weapons: 8 Mimicry: 5 Defence: 1			Speed: 0 Weapons: 2 Mimicry: 10 Defence: 0			Growth: 13 Weapons: 2 Mutualism: 2 Resilience: 3		
Both Win	Reproduction 3	Symbiont 12		Reproduction 23	Symbiont 8	Both Win	Reproduction 31	Energiser: 11
	Darth Maul			Scrambled Egg Slime Mould			Long Felt Fern	
Chemical: just like a Sith Lord, the red & black warning colours indicate this beetle is dangerous.			Numbers: Individual cells that fuse into one body; a collective that if it wasn't limited to its size, would take over the Earth.			Chemical: using crassulacean acid to store CO ₂ , this plant can save water by holding its breathe all day.		
								
Speed: 9 Weapons: 4 Mimicry: 1 Defence: 4			Growth: 12 Weapons: 4 Mutualism: 2 Resilience: 3			Growth: 5 Weapons: 2 Mutualism: 2 Resilience: 2		
	Reproduction 24	Survivor 13		Reproduction 40	Symbiont 14		Reproduction 33	Survivor 9

	The Brother Veined Orange Sponge			Accipitor White-Bellied Sea Eagle:			Protein The Primordial Soup	
Infiltration: Hides in a society, takes away selfishness, replacing it with loyalty to the 'Brother'.			Senses: attack from the air, have incredible vision, proud, courageous & domineering.			Environment: Deconstructs Proteins, turning living things into a primordial slush.		
								
Growth: 6 Weapons: 0 Mimicry: 4 Defence: 5			Speed: 9 Weapons: 12 Mimicry: 5 Defence: 1			Growth: 14 Weapons: 25 Mutualism: 0 Defence: 7		
Reproduction 30		Survivor 11		Reproduction 2	Predator 10	Both win on ALL	Reproduction 0	Energizer 18
	Methanogen Archaeabacteria			The Leafs Round Batfish			Blood Beach Cross Hatch Tun	
Environment: Removes oxygen from Earth (turning it back into water & CO ₂), attacking all cyanobacteria.			Mimicry: Land in Forest and are unnoticed as leaves. Then become like locusts & eat everything.			Control: Has paralyzing venom. Sucks people under sand & swallows them whole		
								
Growth: 13 Weapons: 20 Mutualism: 6 Resilience: 4			Speed: 7 Weapons: 3 Mimicry: 12 Defence: 2			Speed: 1 Weapons: 8 Mimicry: 2 Defence: 4		
Both win on 	Reproduction 30	Energizer: 22		Reproduction 33	Survivor 13		Reproduction 22	Predator 9
	Monster Under the Bed Yellow-Headed Moray			The Presence Delicate Decorator Crab			The Jellys Moon Jelly	
Weapon Has an Alien-like 2 nd pair of jaws in its throat. Hide under beds and eat people			Mimicry: This Alien has been with us for millions of years, so well camouflaged we never noticed			Numbers House-sized flying jellies that arrive in the millions to suck us into their tentacles.		
								
Speed: 1 Weapons: 10 Mimicry: 1 Defence: 4			Speed: 1 Weapons: 4 Mimicry: 10 Defence: 3			Speed: 3 Weapons: 5 Mimicry: 4 Defence: 1		
Reproduction 31		Predator 9	Reproduction 36		Survivor 10	Reproduction 34		Energizer: 8

Disease		Storm		Temperature	
Chemical: Bacteria & Virus release toxins		Environment: A Storm can lay A Habitat to waste		Weapon: Burn	
					
Weapons: 20 Defence: 5		Weapons: 20 Resilience: 7		Weapons: 20 Defence: 6	
 Reproduction 30	Symbiont 18	Traveler 20		Predator 18	
Ribosome The RNA world		The Flu The RNA world		Enzyme RNA world	
All: This creature put amino acids together to make Proteins. Bonding with others to form the first Organism		Infiltration: It is believed that viruses exchanged the proteins & DNA that led to the first living cells.		All: Enzymes make everything happen faster	
					
Wins on DNA Defence: 6		Growth: 14 Weapons: 14 Mutualism: 6 Resilience: 1		Weapons 24 Defence: 6	
All	 Reproducer 15	Reproduction 33	Predator 15	 Reproduction 0	Energiser 20
 Amoeba Pseudopodia	Wins on Strength	 Case Moth <i>Lepidoscia</i>	 Lunar Coral		
Strength: muscles as well as movement within a cell rely on motor proteins (actin & myosin) that bind and unbind to create movement.		Mimicry: the cases are kept by the young so a well camouflaged case may last many generations.		Symbiont: Coral gets energy from the sun like Superman	
					
Growth: 13 Weapons: 15 Mutualism: 2 Resilience: 1		Speed: 6 Weapons: 4 Mimicry: 10 Defence: 1		Speed: 4 Weapons: 7 Mimicry: 3 Defence: 4	
 Reproduction 33	Predator 14	Reproduction 24	Reproducer 12	Reproduction 34	Symbiont 13

	Sea Lettuce Zacary Byrne		Blue Bottle Jellyfish <i>Physalia utriculus</i>		Tropical Rockmaster Jade Kilpatrick	
Chemical: Would you be brave enough to place your hand in a fire and let it burn?		Weapon: This is a colony. One lucky individual is the float while the others have tentacles and are joined to it.		Speed: Damselflies have around 30 different postures & some are the same as two children arguing over a toy, or two boxers preparing to fight.		
						
Growth: 4 Weapons: 11 Mutualism: 5 Resilience: 3 (3m)		Speed: 0 Weapons: 16 Mimicry: 5 Defence: 0		Speed: 13 Weapons: 12 Mimicry: 0 Defence: 2		
	Reproduction 30	Survivor 13	Reproduction 25	Traveller 8	Reproduction 13	Predator 11
Energy		The Infiltrator Plasmid		The Land Submarine CLASS Insecta		
All: Everything is Energy. Matter is just frozen Energy.		Infiltration: self reproducing DNA that live inside cells & mess with the Genes		Change: Gills turned into tubes that could get oxygen out of the air, fewer legs made it easier to travel on land		
						
Doubles the Score of another card Defence: 7		Randomly take a card from someone else's pack & play it Defence 2		Speed: 5 Weapons: 4 Mimicry: 3 Defence: 2		
	Reproduction 0	Energiser 22	Reproduction 31	Symbiont 16	Reproduction 22	Survivor 11
	The Multiplicity The Rhizome			Flying Drunkard Citrus Swallowtail		Meteorite Predator
Regeneration: Rhizomes are stems that grow underground and produce new plants at every branch.		Change: Many Butterflies like this swallowtail fly erratically. This means they fly as if they were Drunk		Environment: Extinction Bringer		
						
Growth: 6 Weapons: 9 Mimicry: 1 Defence: 5		Speed: 8 Weapons: 2 Mimicry: 6 Defence: 3		Speed: 2 Weapons: 22 Defence: 7		
CLASS: Monocots	Reproduction 14	Reproducer 18	Collect Rutaceae & Draw Reproduction 24	Symbiont 15	DEATH Traveller	



Rules of Life & Death

... so far

Top Trumps Game

Players 2-6

1. Deal out all the cards
2. Players must only look at & use the top card
3. Starting player chooses a Character (Speed, Weapons etc.)
**Best not to use reproduction & bottom right corner character
4. Other players must follow that character – highest score wins the round
 - a. Winner collects the played cards
 - b. Places them at the back of the pack
5. Winning player chooses the next character
6. If player's have the same score – must use next card with the same character
7. If card doesn't have a character, it loses.
8. With **Draw Again** player can look at the next card & choose between the 2 (leaving the other card at the Top)
9. if player wins the dice **roll**, they win and start the next round.
10. **Both Win** – both players get their cards back and share any other cards – the player who put the Both Win card down gets the first pick – this player also starts the next round
11. Top left corner is the players group – Top right corner is the group that it can defeat - if player's right corner is the same as the other card's left corner then the player wins & starts the next round.
12. If a Death Card is played the winner of the round removes one of the cards they won (not the death card)