



Animal attributes game

This activity is a fun way to get the students using Venn diagrams and learning about some of Marwell Zoo's animals.

The students will use the information from the animal attributes checklist to work out which section of the Venn board the cards should go in. If you are using this resource as a post-visit activity, you can give the students the blank animal checklist for them to fill in as they go around Marwell. Otherwise, we have included a completed version of the checklist for them to use instead.

There are three variations of the game that students can play: the warm-up activity, the main game and the puzzle challenge. All three versions are suitable for both 2 loop Venn diagrams and 3 loop Venn diagrams.

Getting started:

1. If you are coming on a trip to Marwell, print out the blank animal attribute checklist (double sided) for students to fill in during their visit. A map is also provided to help you find all the animals you need. If you are just using this resource in school, print the completed checklist.
2. Print out the game boards. There is a 2-loop Venn diagram game board and a 3-loop Venn diagram game board. For the 3-loop board, it is recommended to print onto A3 paper so there is enough space to play.
3. Print the **16 animal cards** and **10 attribute cards** (double-sided) and cut them out.

With many thanks to Jo Kershaw and Denefield School for their extensive contribution to developing this resource

Curriculum Links

MATHEMATICS

Ratio, proportion and rates of change

- use scale factors, scale diagrams and maps

Probability

- enumerate sets and unions/intersections of sets systematically, using tables, grids and Venn diagrams

SCIENCE

Genetics and evolution

- differences between species

Warm-up activity

This activity is for 1 to 4 students. It should help familiarise the students with the features of the animals in the game and remind them how to use a Venn diagram. They do not need to score any points for this activity.

1. Turn over 2 (or 3, depending on the number of loops in the Venn diagram) **attribute cards** and place them face up in the attribute boxes for all to see.
2. Shuffle and deal all the **animal cards** between the players.
3. Players take it in turns to place one of their **animal cards** onto the board.
4. The other players check for accuracy (using the completed attribute checklist if necessary), until all cards have been correctly placed.

Animal attributes main game

This game is for 2-4 players (or 2 teams). The aim is to collect the most points by selecting animals which go in the highest-scoring sections of the Venn diagram.

1. Turn over 2 (or 3) **attribute cards** and place them face up in the attribute boxes for all to see.
2. Spread out all the **animal cards** face up on the table so all players can see them.
3. Players (or teams) take it in turns to select an animal and put it in the correct space on the board.
4. When all the **animal cards** have been placed the winner is the player/team with the highest point total!

Scoring

Points are scored according to where the **animal card** is placed on the Venn diagram, as written on the game board. The more overlaps in the section, the more points you win!

Challenging

If you think your opponent has put their card in the wrong place you can challenge in the following ways:

1. In borderline disputes, ask your opponent to confirm which space the card should be in.
2. Use the attribute checklist to check whether your opponent is correct or not.

If your opponent is incorrect they score no points for that round. If your challenge was wrong you miss one go.

Note: In this game the team that goes first may have an advantage, however any mistakes the students make will affect the scores enough so that this should not be a problem. They can always play again and take it in turns to go first!

Puzzle challenge!

This activity is for 2 players (or 2 teams). The aim is to correctly identify the hidden animal attributes using the smallest number of animals.

Before you start:

- ❖ Decide between you whether Team B may guess one attribute at a time, or have to wait until they think they know them all (if they are guessing one at a time, make sure they state which space on the diagram they are referring to)
- ❖ Decide whether Team B are allowed to look at the animal attributes checklist before making their guess – depending on how challenging you want the puzzle to be!



How to play:

1. Team A looks at the **attribute cards** and chooses 2 (or 3) of them to place on the board, face down, without showing the other pair. Make sure to remember where each card has been placed!
2. Team B chooses an **animal card** and gives it to Team A to put in the correct space on the board.
3. Repeat Step 2 until Team B think they can correctly identify the attributes. Then they can have a guess to see if they are right.
4. If they are, swap over and Team A can try to guess a new set of attributes. If not, keep going until Team B work it out.

Scoring

Team B gain one point for each **animal card** placed and each incorrect guess. As the aim is to work out the attributes as quickly as possible, **in this game it is the team with the lowest score that wins.**

It is easier if Team A (the non-guessing team) keeps track of the scores.

EXTENSION:

Print the game boards onto A4 size and ask the students to invent their own attribute puzzle. They could draw or write the name of the animals in their correct place. Good versions of these can be used as starter activities for future lessons, and/or for display.

Animal attributes completed checklist

	Is it a vertebrate?	Can it fly?	Does it have exactly 4 legs?	Does it have a tail?	Is it a mammal?	Does it eat fish or meat in the wild?	Does it eat plants in the wild?	Does it come from mainland Africa?	Is it listed as threatened under its conservation status?	Does it live in forests?
Amur tiger	✓		✓	✓	✓	✓			✓	✓
Brazilian salmon pink tarantula	✓					✓				✓
Egyptian tortoise	✓		✓	✓			✓	✓	✓	
Giraffe	✓		✓	✓	✓		✓	✓		
Wrinkled hornbill	✓	✓		✓			✓		✓	✓
Yellow-throated frog	✓		✓			✓			✓	✓
Humboldt penguin	✓			✓		✓			✓	
Madagascar tree boa	✓			✓		✓				✓
Meerkat	✓		✓	✓	✓	✓	✓	✓		
Northern bald ibis	✓	✓		✓		✓		✓	✓	
Partula snails				✓			✓		✓	✓
Beaded lizard	✓		✓	✓		✓				✓
Red-necked wallaby	✓			✓	✓		✓			✓
Scimitar-horned oryx	✓		✓	✓	✓		✓	✓	✓	
Asian small-clawed otter	✓		✓	✓	✓	✓				
Crocodile monitor	✓		✓	✓		✓				

Animal attributes checklist

[illegible]

Checklist definitions

Legs: limbs that the animal uses to stand or walk on, not including wings or small forearms

A mammal: an animal with a backbone and fur or hair, that gives birth to live young which feed on milk eg. a cheetah

Vertebrate: an animal which has a backbone

Threatened: an animal that is classified as either Vulnerable, Endangered, Critically Endangered or Extinct in the Wild on the IUCN Red List of Threatened Species

Has some
hair or fur

Can fly

Has
exactly
four legs

Has a tail

A
mammal

Eats fish
or meat

Eats
plants

Comes
from
mainland
Africa

Is
threatened
in the wild

Lives in
forests



**Egyptian
tortoise**



**Northern bald
ibis**



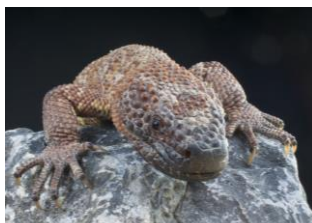
**Madagascar
tree boa**



**Winkled
Hornbill**



**Beaded
lizard**



**Yellow-
throated frog**



**Brazilian
salmon pink
tarantula**



**Partula
snails**



**Crocodile
monitor**



**Asian small-
clawed otter**



Giraffe



**Humboldt
penguin**



**Scimitar-
horned oryx**



Amur tiger



Meerkat



**Red-necked
wallaby**



[illegible]

Animal attributes game board

Attribute

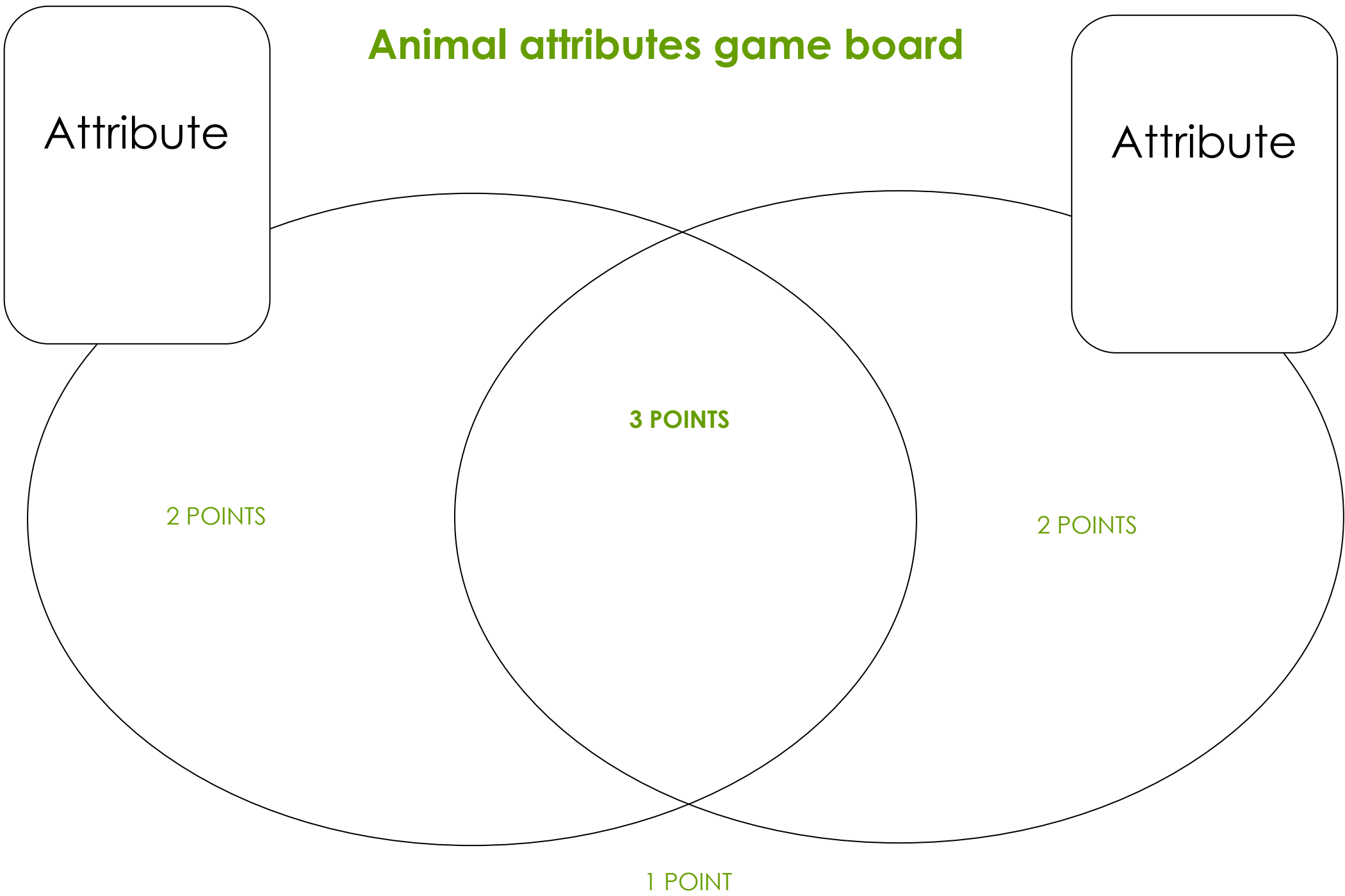
Attribute

2 POINTS

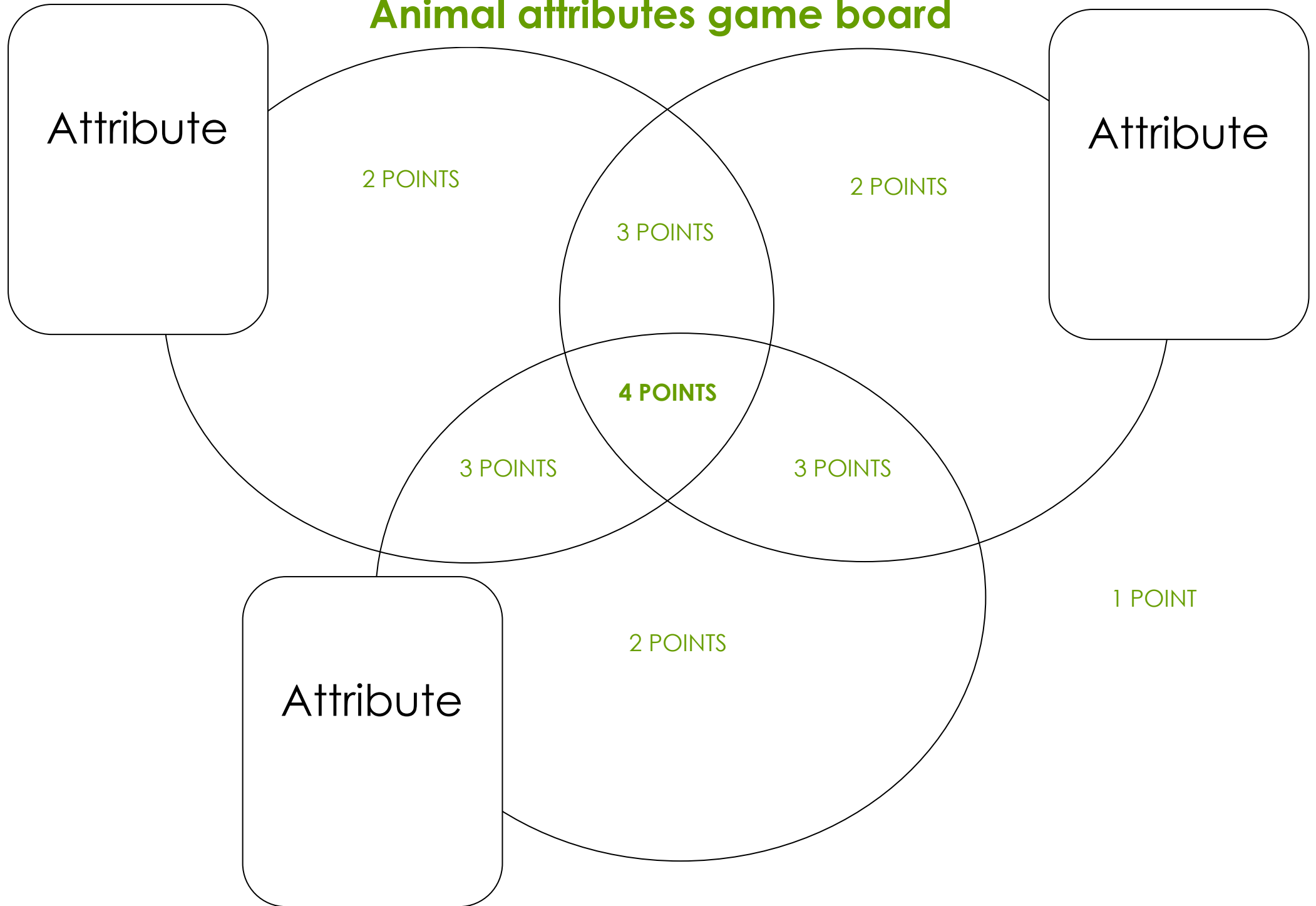
3 POINTS

2 POINTS

1 POINT



Animal attributes game board





- ### Cold Blooded Corner
- Egyptian tortoise
Madagascar tree boa
Bearded lizard