

BITSA™

Because every dog is different

Hi, I'm George.
Follow me as I fetch the details
of my breed ancestry! We will
dig up important and otherwise
unknown health & behavioural
information while learning all
about who I am.



BITSA ID No S0000000001
Name George
Proud Owner John Smith
Address 60-66 Hanover st
Fitzroy VIC 3000
Australia
Date of Test 18 June 2008



www.bitsa.com.au

It's a Dog's Life

Thank you for using BITSA to fetch the inside world on George's breed history. Within these pages you are about to know more about George than ever before. The Breed Identification Through Scientific Analysis (BITSA) report may reveal:

- The breeds detected in George's make-up
- Historical Information on the breeds detected
- Behavioural and personality traits likely to be exhibited by these breeds
- Potential health issues related to each breed

We hope you enjoy your BITSA experience and gain a deeper understanding of George. Knowing the breed history can only strengthen this relationship, providing you with insights to enrich the way you interact, train and care for George.

What BITSA may reveal



Energy Level



Intelligence



Ease of Training



Watchdog ability



Potential for Weight Gain



Family Friendly

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Ever since my owners adopted me, they always considered me as a Jack Russell x Fox Terrier. Was I excited to have a chance to finally prove them wrong? You bet!



The inside word on the DNA test

BITSA works by applying the latest DNA science to analyse hundreds of snippets of your dog's DNA against an extensive genetic database to provide a breed signature or a series of breed signatures. These breed signatures indicate the make-up of breeds within your dog.

George's breed history is broken into the following categories

Dominant breed

Approximately 100% of this breed was discovered. A dominant breed is most likely the breed of both of the parents.

Primary breed

Significant amounts of this breed were discovered. A primary breed is most likely the breed of at least one of the parents.

Secondary breed

Moderate amounts of this breed were discovered. A secondary result typically indicates the parents of your dog were mixed-breeds themselves, or alternatively, can mean we have identified breeds that make up the grandparents of your dog.

Distant breed

Low amounts of this breed were discovered. A distant result means we found traces of the breed in your dog's ancestry, but we are unable to be more specific to the exact location in your dog's family tree. Typically, distant amounts are found in great grandparents, or further beyond.

True BITSA

A True BITSA does not have a dominant, primary, secondary or distant breed, because they have been created by mixing a unique blend of a large number of dogs for so many generations that no single breed is currently detectable in its ancestry.

Q Values - What are they and what do they mean?

A Q value is an estimate of how much of an individual's genome came from each breed.

Q Value	Approximately % of that breed	Description
0.7 or greater	100%	Dominant
0.4 to 0.699	50%	Primary
0.1 to 0.399	25%	Secondary
0.089 to 0.099	Trace amounts	Distant

Q (0.000)



All these years I've been identified by my appearance, but my personality has always seemed a little different to the stereotype. Just goes to show that looks can be deceiving!



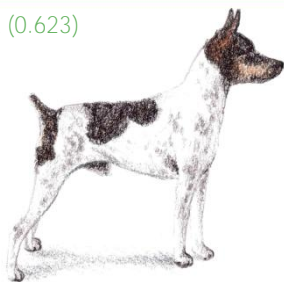
You already know that George is one in a million - but now you have the proof.

Your BITSA DNA test result has retrieved the following breed history for George.



Primary Amounts

Q (0.623)



Tenterfield Terrier

Secondary Amounts

Q (0.285)



Australian Cattle Dog

Distant Amounts

N O N E D E T E C T E D

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Breed Details

Primary

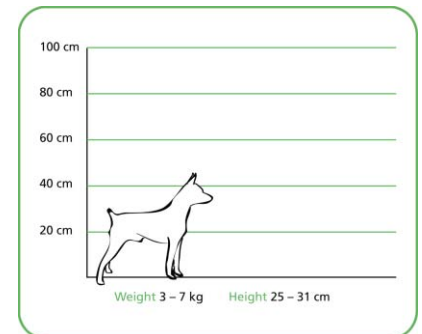
Breed: Tenterfield Terrier

Originally known as the Miniature Fox Terrier, history suggests that the Tenterfield Terrier originated from England. Bred as a smaller replacement for the Fox Terrier, "Mini Foxies" were known and used for foxhole hunting. Miniature Fox Terriers have been known in Australia for over 100 years and were seen as very useful farm dogs, especially skilled at catching rats and rabbits. Bright and outgoing with a curious personality, Tenterfields are widely popular throughout Australia.

Group: Terriers

Terriers are typically small, wiry, very active and fearless dogs. The word terrier is Latin for terra, meaning earth and as the name indicates terriers love to dig. Terriers were originally bred to fight and kill rats and in some cases each other, for sport. They are known for their curious temperament and can often be quite cunning problem solvers. With a variety of long and short-legged breeds, terriers will keep you on your toes with their peculiar and bold sense of humour.

Woof! I sure have that characteristic Tenterfield energy and feistiness! I love digging and playing fetch with my family. Try to hide that ball and I'll dig it up no sweat!



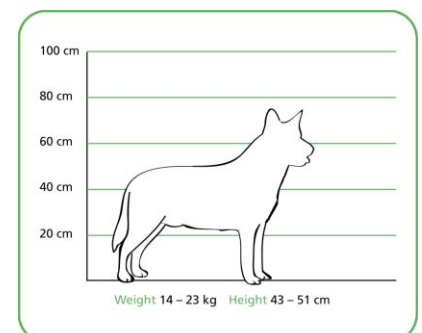
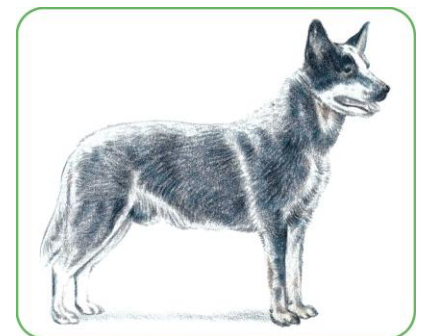
Secondary

Breed: Australian Cattle Dog

The Australian Cattle Dog was bred by 19th century Australian settlers. It is generally accepted that the Australian Cattle Dog is the result of the crossing of the Blue Merle Collie (from Scotland) with the Dingo, and a late infusion of Dalmatian and Black and Tan Kelpie. First known as the Australian Heeler, blue coloured dogs proved to be the most popular among farm owners and drovers, and they became known as Blue Heelers or Queensland Heelers – titles that are still commonly used today.

Group: Working

Just as the name says, working breeds are the hard workers of the canine world and are commonly used for their abilities to aid farmers. With a staggering amount of endurance, working dogs are used to herd or drive sheep and cattle. Very intelligent and eager to please, working dogs make devoted pets.



People often comment on how clever I am. When my owners grab my lead I know exactly what's going on! I love being outdoors and always work my hardest, no matter how far that ball is thrown, I'll have it back in no time.



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I'm one of a kind - you won't find another personality quite like mine! Affectionate, easily trained and playful, but above all I always put my family first. What more could you want?!


























































What are some of George's traits?

You now know what breeds make up George. Below we have summarised all of the behavioural and personality traits consistent with these breeds and given them a 'Paw' rating related to the levels you can expect to see.

Australian Cattle Dog

Tenterfield Terrier

Traits

Sensitivity	 	  
Predatory tendencies	  	  
Potential for weight gain	  	 
Watchdog ability	 	  
Dog friendly	  	  
Affectionate with family	  	  
Ease of training	  	  
Tendency to bark or howl	  	 
Intelligence	  	  
Energy	 	  



Low levels of trait



Medium levels of trait



High levels of trait

Playing with George

Now that we know George's breed history, here are some games and activities that directly relate to the breed make-up. Have fun!

Bury the Treasure

Create and allocate a sandpit or patch of dirt your dog can dig in. In front of them, bury toys and treats and let them go and dig up to find the reward. Challenge your dog by eventually burying treats in their absence.

Follow the Leader

Form a miniature obstacle course in a yard or house and call for your dog to follow you. Every time they complete a difficult task, such as, walking up a set of stairs or jumping over a challenging roadblock, offer them a treat as a reward. Vary your pace from jog to walk and it will make your dog require more concentration and physical exertion.

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This information allows us to be one step ahead. With not only my vet, but my owners now aware of any potential future health concerns. We've just sent off for a PRCD test and my owner now knows to give me a nice soft bed to prevent premature hip problems and keep an eye out for any signs of deafness



Health concerns which may affect George

Some breeds are prone to certain genetic health problems such as hip dysplasia. This does not mean that breed composition will develop those diseases, but by knowing George's breed history you and your Vet are now better placed to identify potential risks.

Potential Health Concerns

Australian Cattle Dog Tenterfield Terrier

Natural Bob Tail (NBT)	-	Prone
Progressive Retinal Atrophy (PRCD)*	Prone	-
Hip Dysplasia	Prone	-
Deafness	Prone	-

These health conditions are for reference purposes only. They are not intended as a diagnosis. Any diagnosis of these symptoms should be carried out by a qualified Vet.

* These inherited diseases may be detected by further DNA screening. If you would like further information on these tests, please contact Animal Network on 1800 822 999 or askus@animalnetwork.com.au.

Finally, BITSA has confirmed what my owners never knew but have always wanted to find out! They now have a great understanding of why I might be part cattle dog, but I'm only a little fella! I'm a proud BITSA - afterall, variety is the spice of life! 🐾

Common Questions - Big Dog, Little Dog

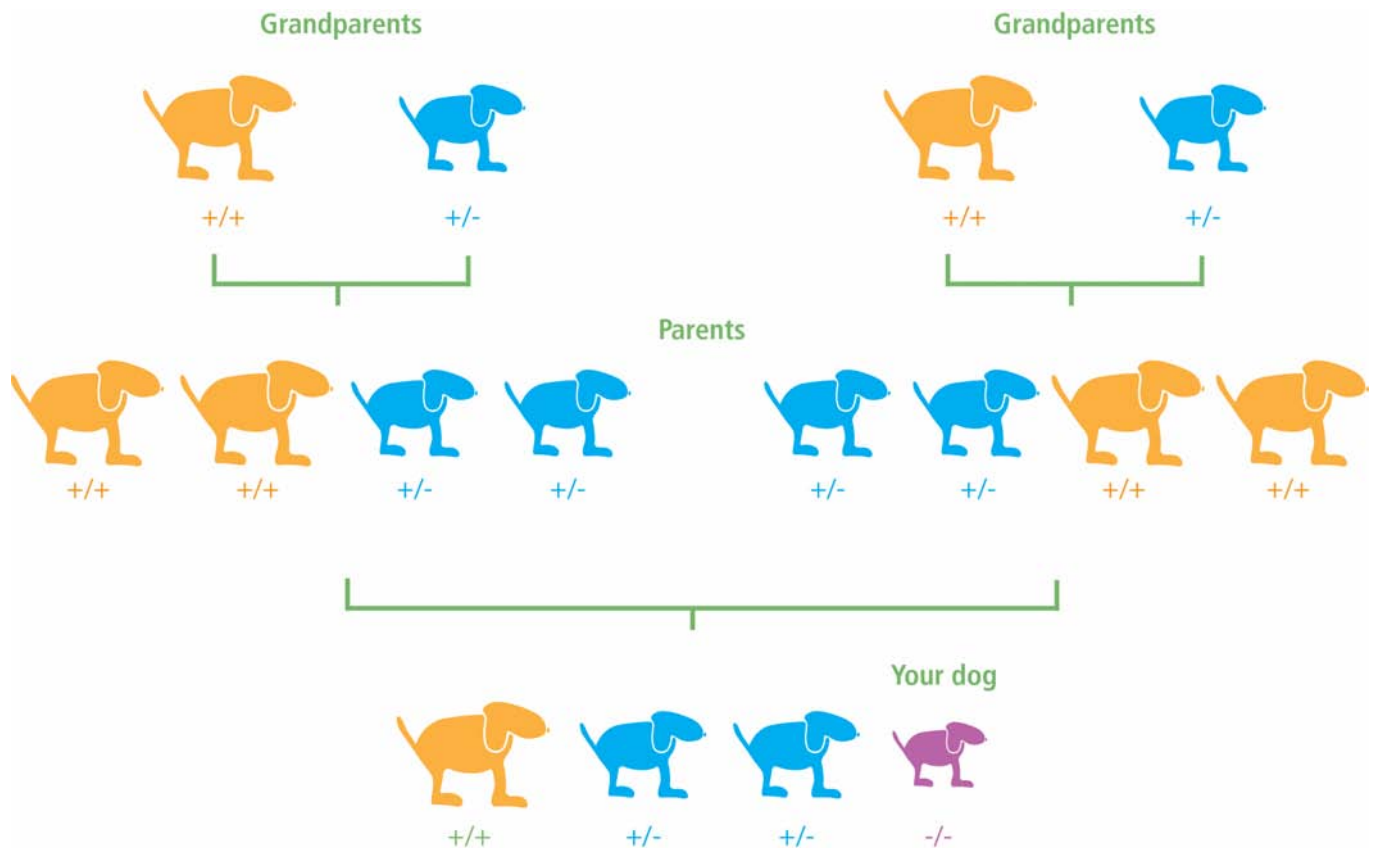
"My dog is over 25kg. How could BITSA state that it has Chihuahua in its breed make-up?"

Dog size is mainly determined by a single allele of the IGF1(Insulin Growth Factor1) gene.

- Large dogs are most likely to be IGF1+/IGF1+
- Medium dogs are most likely to be IGF1+/IGF1-
- Small dogs are most likely to be IGF1-/IGF1-

But if your dog is a very small dog, it may still have one or more very large grandparent.

50% of large dog and medium dog matings will produce medium sized dogs and 50% will produce large dogs



Mating two medium sized dogs will produce a litter composed of 50% medium sized dogs, 25% large dogs and 25% small dogs

Disclaimer: Each dog is unique and their physical and behavioural traits will be the result of multiple factors including genetics, training, handling and environment. The BITSA product has been designed solely to identify the genetic make-up of mixed breed dogs and no other purpose is intended, authorised or permitted. BITSA is not a test to identify purebred dogs. A number of generalisations and statements about your dog may or may not be correct. This report is intended to be an indicative guide to the most common traits or characterisation of various breeds based on breed standards and published breed information. To the extent permitted by law, Specialist Diagnostic Services Pty Ltd (SDS) disclaims and will not be accountable for any and all warranties, either express or implied, including but not limited to any warranty regarding performance, the implied warranty of merchantability, fitness for a particular purpose and non-infringement of third party rights with respect to the BITSA product. To read SDS's full disclaimer see www.bitsa.com.au