Darwin and Evolution
Activity 4a: Dogs and their puppies
http://www.darwinproject.ac.uk/learning/7-11/darwin-and-evolution

Suggested preparation
Presentation: Darwin and Evolution
http://www.darwinproject.ac.uk/learning/7-11/darwin-and-evolution

Film: Darwin and Evolution
Professor Jim Secord helps us to understand Darwin’s ideas on evolution
http://www.darwinproject.ac.uk/learning/7-11/darwin-and-evolution

How long will activity take?
• 10 minutes

What do I need?
• Dogs and their puppies worksheet
• Pen

This activity asks you to look more closely at the characteristics of different types of dogs and what might happen if they breed.

What do I do?
1. Complete the worksheet.
2. Share your answers with the class.
Darwin and Evolution
Activity 4a: Dogs and their puppies worksheet

1. Look at the images of dogs. For each breed, name a characteristic that makes it different from the others.

   A: bulldog  
   B: greyhound  
   C: dachshund  
   D: poodle  
   E: dalmatian

2. We know that offspring inherit characteristics from each parent. List what characteristics puppies of these dogs could inherit if the parents were:

   A. A poodle and a bulldog

   B. A greyhound and a dalmatian

   C. A dachshund and a bulldog
Activity 4b: Darwin’s dogs

How long will activity take?
• 20 minutes

What do I need?
• Information sheet about Darwin’s dogs
• Letters about dogs & question sheet
• Pen

Find out about Darwin’s interest in dogs through exploring some of his letters.

What do I do?

1. Read about Darwin’s dogs and the letters that Darwin sent and received that explore dog characteristics and behaviour.

2. Answer the questions about the letters.
Charles Darwin was a dog lover his whole life. When he was growing up, more people had working dogs if they lived in the countryside, rather just having dogs as pets.

Over the years, the Darwins owned at least 5 terriers, a retriever, a Pomeranian, a pointer and a Scottish deerhound.

As part of his research Darwin asked his correspondents to describe the characteristics and behaviours of the dogs that they knew.

Image: Charles Darwin's daughter Henrietta with a terrier – probably Polly, who is mentioned in Darwin’s letter to Lucy Wedgwood. (Cambridge University Library, DAR 225: 73)
Cambridge, Mass.
Feb. 14. 70

My Dear Darwin

...I well remember telling you of our "Max" and his habit of washing cat-fashion—which you suggested might have come from being brought up with a cat, and I think I told you that I had not been able to learn definitely whether that was the case or not..."

Ever Yours truly,
A. Gray

Dear Sir

27 April 1871
Portsea

London & Provincial Bank,

R I Thompson

Your most obedient Servant

I am Dear Sir

...I have also noticed other habits such as running round and round after his tail sometimes with the end of it in his mouth, which he evidently imitates from them. I have also noticed other habits such as licking his feet and cleaning his face which he imitates from young pigeons when they acquire the habit of licking his feet and cleaning his face..."

In confirmation of your friends statement I beg to inform you that I have a dog of 13 years of age mixed breed or mongrel, which I brought with me from Australia when you first saw me, and her kittens and from them acquired the habit of licking his feet and cleaning his face..."

I have also noticed other habits such as running round and round after his tail sometimes with the end of it in his mouth, which he evidently imitated from them..."

My Dear Darwin

Feb. 14. 70
Cambridge, Mass.

http://www.darwinproject.ac.uk/entry-7105

Transcribed extracts
LETTER 7105
From Asa Gray
To Charles Darwin
14 February 1870

http://www.darwinproject.ac.uk/entry-7722

Transcribed extracts
LETTER 7722
From Ralph I. Thompson
To Charles Darwin
27 April 1871
LETTER 7177
From George Cupples
To Charles Darwin
29 April 1870
Transcribed extracts
http://www.darwinproject.ac.uk/entry-7177

The Cottage, Guard Bridge, 
Fifeshire.  N.B.
April 29/70
My Dear Mr Darwin,
... It will be a very great pleasure to me to send a Deerhound puppy—which shall certainly be of the very best...
No dog can be better for docility, attachment, and good behaviour about a house than the pure Scotch deerhound—but greater intelligence and a more decided turn for guardianship, with more of the mastiff temper, can be obtained in a dog partaking of the old wolf-hound blood, while at the same time the appearance of the deerhound is preserved...
I shall make a point of seeing about it without delay, and giving full particulars before you make choice...
Mrs Cupples desires to be remembered to Mrs Darwin—and I remain
My dear Mr Darwin
faithfully yours
George Cupples

LETTER 7223
From Charles Darwin
To Lucy Wedgwood (Darwin's niece)
8 June [1867–72]
Transcribed extracts
http://www.darwinproject.ac.uk/entry-7223

Down
June 8th
My dear Lucy
I hear that your Dog is a barker: please observe for me whether the (upper) lips are at all retracted or everted* when he barks & just before he barks. My impression is that if you open a dog's mouth lips almost hide teeth; but that they are much more exposed, when he barks, which implies some contraction or eversion.
You are so good an observer that I know I can trust your conclusion. The Bark ought not to be a savage one, as that wd give tendency to snarl—a joyful bark or bark of good spirits wd. be best.—
Think of any fact about expression of any emotion in any of your birds.—
Yours affect.
C. Darwin
Our Polly will not bark except as she rushes away to some supposed enemy in forest.

*This means if the dogs lips are drawn back (retracted) or turned out (everted).
Darwin and Evolution
Activity 4b: Darwin’s dogs
Letter questions

Letters 7105 & 7722
1. In these letters the writers describe the behaviour of their dogs; what do you think Darwin was trying to find out more about?

_______________________________________________________________________________
_______________________________________________________________________________

Letter 7177
1. What type of dog does Mr Cupples recommend for Darwin in terms of its good behaviour?

_______________________________________________________________________________

2. What does he think would give the dog added intelligence?

_______________________________________________________________________________

3. Does Mr Cupples feel happy to provide Darwin with a dog? How do you know?

_______________________________________________________________________________
_______________________________________________________________________________

Letter 7223
Darwin observed the behaviour of dogs in great detail, keen to find out how they behaved in different situations and whether some dogs behaved differently to others. His dog was called Polly.

1. What is Darwin interested to find out about when Lucy’s dog barks?

_______________________________________________________________________________

2. Why do you think he wants her to observe a ‘joyful bark’ rather than an angry one?

_______________________________________________________________________________

3. Apart from the fact that Lucy has a dog, why has Darwin chosen to ask her these questions?

_______________________________________________________________________________
_______________________________________________________________________________
Carry out your own research by completing the Dog Log and writing a letter to describe your findings.

What do I do?

1. Choose a dog to observe. It could be a pet dog or even one on television or the internet. Make sure you don’t do anything to hurt or anger the dog; just watch it in different situations.

2. In your Dog Log, note down the type of dog it is and what it looks like.
   - Does it have long or short legs?
   - What colour is it?
   - What type of coat does it have? Long or short hair? Smooth or scruffy?
   - What kind of nose does it have?

3. Make notes of its behaviour in different situations.
   - Does the dog bark when someone comes to the door?
   - When else does it bark or wag its tail?
   - Can you tell when it is excited or if it seems bored?
   - Does it seem more interested in some humans than others? Why?
   - What happens at feeding time?

4. Share your log and compare your results with others.

5. Using the blank letter template, write a letter to Darwin to describe what you have found out.

Suggested preparation

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Activity 4b: Darwin’s Dogs
This activity introduces Darwin’s interest in dogs

How long will activity take?
• Dog Log – 10 minutes per day for 1 week
• Letter writing – 20 minutes

What do I need?
• Dog Log
• Blank letter template
• A pen/pencil
Darwin and Evolution
Activity 4c: Dog Log

http://www.darwinproject.ac.uk/learning/7-11/darwin-and-evolution

<table>
<thead>
<tr>
<th>This Dog Log belongs to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dog’s name:</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dog’s Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size:                                    Colour:                               Legs:</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Coat:                                    Ears:                                  Nose &amp; Face:</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Other:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sketches:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(If you want to do a quick sketch of the dog or any of its behaviour/expressions)</td>
</tr>
<tr>
<td>Date</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>20 June</td>
</tr>
</tbody>
</table>

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