



**Exploring the Kelpies**  
Information for teachers



# The Kelpies

The Kelpies are magnificent steel monuments that together form the largest equine sculptures in the world and Scotland's biggest public art works. Towering above the beautiful green space of The Helix in Falkirk, they were officially opened to the public in April 2014 and have won multiple awards in recognition of their spectacular design and innovative engineering. In their short lifetime they have established themselves as one of Scotland's adored iconic structures.

## Exploring the Kelpies - Information for teachers.

This pack contains information about the site and what we offer for schools.

### Contents:

- **Teacher's background information sheets (5) relating to:**
  - Mythology of the Kelpie
  - The Industrial Revolution in Scotland
  - The Canals and the Clydesdales
  - Andy Scott – The Artist and the Inspiration
  - The construction

Each information sheet includes some suggested Experiences and Outcomes for Early, First and Second levels that link with the educational tour and suggested follow-up school-based activities.

- **Pupil's information sheets relating to the same areas as above.**
- **The Kelpies Trails 1 and 2.**

These are "treasure hunt" type activities, where the children are asked to follow a trail around the Kelpie Plaza area. Trail 1 is suitable for Early level, with 8 locations to find to tick off. Trail 2 is suitable for First / Second level and asks pupils to find 5 locations, each with a challenge which may be completed on site or back at school.

- **Pupil fun activity sheets: word search, dot-to-dot and colouring sheet.**





# Supporting Learning and Teaching

A visit to The Kelpies is particularly appropriate to teachers working on class topics such as:

- Scottish mythology
- The Industrial Revolution in Scotland
- Canals
- Local landmarks and monuments

The **Curriculum for Excellence** aspires to motivate and challenge pupils through a wide range of varied learning experiences. Site visits have a particular role to play in joining up learning outcomes across the curriculum. A visit and use of the supporting materials, will:

## **Develop successful learners.**

By challenging pupils to consider how life has changed for people. It will help them to think critically about evidence and arrive at their own conclusions.

## **Develop confident individuals.**

Pupils will learn about aspects of their community's past, develop an understanding of social changes, establish some of their own values and communicate their views on different historical and social issues.

## **Develop responsible citizens.**

It will help to increase pupils' social and historical knowledge and understanding and encourage greater respect for their own historic and built environment.

## **Develop effective contributors**

By broadening pupils' knowledge and understanding through investigative, creative and critical thinking.

## Timeline

### **2006**

Andy Scott makes first initial sketches for The Kelpies.

### **2007**

Big Lottery Fund awards grant of £25 million to The Helix project.

### **2007**

Maquettes or 'Kelpie Foals' created.

### **2008**

1:100 scale maquettes created as working tools for the design process and wind-tunnel testing.

### **2009 - 2012**

Design of the foundations, locks and landscape.

### **Summer 2012**

Work starts on The Helix project.

### **February 2013**

First of 150 lorry-loads of material arrives on site.

### **April 2013**

Foundations poured

### **June 2013**

Construction of The Kelpies begins.

### **Nov 2013**

First official 'Helix Day' marked and 'Topping out' ceremony held.

### **April 2014**

International launch of The Kelpies. Numerous awards follow.

### **October 2015**

Helix Visitor Centre opens to the public.

## Mythology of the Kelpies

The mythical Kelpie is a supernatural shape-shifting creature that features in several Scots myths and legends. It lived in the water and had the power to shape shift into different forms. As Kelpies often took the form of horses, they are sometimes known as 'water horses.' It was said that if anyone dared to try and mount one of these beautiful horse-like creatures, it would rear up and plunge into the water taking the rider to certain death.

Nessie, the fabled Loch Ness monster, is perhaps the best-known example of a Kelpie – whether you believe she exists or not!



The original plan for The Kelpies was strongly influenced by this myth, but the creator Andy Scott is eager to stress that his artistic vision for them was not based on a legend. His own vision for The Kelpies is one that is very much grounded in the recent history of the Falkirk area.



However, the sculptures do share something of their shape-shifting qualities as, when viewed in different lights and weather conditions The Kelpies appear to change mood and appearance.



Above illustration of a Kelpie by ORUPSIA.  
[www.deviantart.com/orupsia/art/Kelpie-462731711](http://www.deviantart.com/orupsia/art/Kelpie-462731711)

## Supporting Learning and Teaching

Pupils may listen and respond to the Kelpie myth and relate the story to what they know about other mythological creatures such as mermaids, water sprites and unicorns.

LIT 0-02a / ENG 0-03 /  
LIT 0-04a  
LIT 1-02a / LIT 1-04a  
LIT 2-02a / LIT 2-04a

Pupils may extend their knowledge of mythology by exploring other myths and legends from Scotland and beyond.

LIT 0-07a / LIT 0-16a /  
ENG 0-17a  
LIT 1-07a  
LIT 2-07a

Pupils may wish to recall these stories by retelling in their own words, making drawings or models or expressing their ideas through music or drama.

## The Industrial Revolution in Scotland

Falkirk was at the hub of The Industrial Revolution in the United Kingdom largely due to the opening of The Carron Company iron works in 1759 on the banks of the River Carron. The company prospered through its development and production of a new short-range and short-barrelled naval cannon, the carronade.



The Carron Company was one of the largest iron works in Europe through the nineteenth century. At this time other heavy industries such as coal mining, brickworks, paper-making and brewing flourished in this part of Scotland.

Andy Scott's inspiration for the **The Kelpies** is twofold: firstly the **Clydesdale horses** which were so vital for the transportation of goods during the nineteenth and twentieth centuries, and secondly the industries that once flourished in Scotland. The giant heads are made of stainless steel, representing the fact that Falkirk was once the centre of the iron industry in Scotland.

## Supporting Learning and Teaching

Pupils may draw comparisons between modern and nineteenth century methods of travel and the transportation of goods. They might consider the challenges of being entirely dependent upon horsepower.

SOC 0-01a / SOC 0-04a /  
SOC 0-07a  
SOC 1-02a  
SOC 2-01a

Pupils may be able to carry out research within members of their family who may be able to remember horse-drawn vehicles.

SOC 1-03a  
SOC 1-04a  
SOC 2-03a / SOC 2-04a

Pupils will have opportunities to extend their vocabulary associated with the topics e.g. myth, barge, lock gate, towpath etc.

LIT 0-14a  
LIT 1-14a / LIT 1-15a /  
ENG 1-30a / ENG 1-31a  
LIT 2-14a / LIT 2-15a /  
ENG2-30a / ENG 2-31a



## The Canals and the Clydesdales

The Forth and Clyde Canal was the first major canal to run through the Falkirk area and was opened in 1790. It was followed in 1822 by the Union Canal which provided a new route between Edinburgh and Falkirk. Both canals were essential for transporting goods during the Industrial Revolution and were crucial for developing local industry in Falkirk. The area had a large number of ironworks, brick-making facilities and coal mines, all of which required heavy goods. Transporting these goods was made easier by the use of horse-drawn barges on the canals.



The horses used for pulling the barges were mostly Clydesdales, a breed native to Scotland. These mighty animals are known for their power and strength and are ideally suited to hauling heavy loads.

The canals were also used to transport people, with the trip from Falkirk to Glasgow in the early 1800s taking around five and a half hours.

By 1848, the railways arrived and the passenger service on the canals was withdrawn.

## Supporting Learning and Teaching

Pupils may explore the features of a canal and compare these to features of a river, thinking about the advantages for transportation of goods i.e. straight and on the level (usually!) Older pupils may consider the consequences of the development of railways and the impact on society.

SOC 1-07a

SOC 2-07a

Pupils may also consider why the new section of canal was built so close to the River Carron. (This is due to the River Carron being tidal.) Further study might explore some of the challenges associated with building / working on the canal.

SOC 2-07a

## Andy Scott – The Artist and the Inspiration

The artist behind The Kelpies is Scottish sculptor Andy Scott, whose work can be seen across the globe. A graduate of the Glasgow School of Art, Scott has become known worldwide for his large-scale public artworks. Many of Scott's sculptures feature horses, and so his art is sometimes termed 'equitecture.' One of the most famous examples being The Heavy Horse (1997), located next to the M8 near Glasgow.



The Kelpies are modelled on two Clydesdale horses who worked for Glasgow City Council: **Duke** and **Baron**. They are both large horses, even by Clydesdale standards, with Baron standing 18.1 hands high (1.84m) and Duke 17.3 hands high (1.80m). Andy Scott fondly remembers his time with Duke and Baron, saying

*'Working with them really captures the spirit of the whole project, because I wanted to honour old working horses from the past.'*

The original design brief for The Kelpies was the brainchild of George Ballinger, Head of Engineering at British Waterways. He invited Andy Scott out to dinner and explained what he had in mind and that he had only ideas but no money! Andy took up the challenge and the rest is history. Scott came up with the first sketches in 2006. These were followed by the building of smaller-scale models known as '**The Kelpies Maquettes.**'

## Supporting Learning and Teaching

Pupils may wish to explore online to find some of Andy Scott's sculptures. They may be able to describe some common features of his work. Pupils may be encouraged to express what they like / dislike about his work and give reasons why.

EXA 0-05a

EXA 1-05a

EXA 2-05a / EXA 2-07a

Older pupils may discuss the idea that sculptures are often built as a celebration or a tribute to an event or person in the past. What do The Kelpies celebrate?

LIT 1-04a / LIT 1-14a

LIT 2-04a / LIT 2-14a

Pupils may discuss the process of making a drawing or a sculpture using real objects to model from. They may develop their understanding of what a sculpture is and perhaps create their own sculpture exploring different media and techniques.

EXA – 0-04a /

EXA 1-04a / EXA 2-04a

LIT 0-21b

LIT1-26a

LIT 2-26a

# The Construction

## The Kelpies Maquettes

These are 1:10 scale models of The Kelpies and are fully galvanised steel, a process that was carried by dipping the sculptures in baths of molten zinc. The Kelpies maquettes were commissioned to raise awareness of The Kelpies and The Helix and have travelled around the world on that mission.



## The Steel

The main contractor for the work on The Kelpies was SH Structures, a Yorkshire based company. The inner framework was made from tubular steel which could be manipulated to follow the curvature of the exterior.

The steel plates on the outside of the sculptures were created by Outokumpu, a global leader in stainless steel production with headquarters in Finland and production facilities located throughout the world, including Sheffield.

An astounding 928 individual plates were used, each one being specifically designed for its unique position in the sculptures.

At the time of delivery, all the plates were flat, and a special fixing mechanism called a huck bolt, was used to allow the plates to be bent into shape, creating the lifelike appearance of The Kelpies.

## The Build

The entire process from fabrication to construction took 18 months involving approximately 450 workers. In February 2013, the first of 150 lorries arrived at The Helix. The sculptures were assembled by a team of specialist workers from MG Site Fabrications. The pre-painted sections were welded and then the joints repainted in situ. They took only 90 consecutive days to build on site and were completed in November 2013. The Kelpies were opened to the public in April 2014.



## Supporting Learning and Teaching

Pupils may explore appropriate tools and joining methods to create models, making judgements about which materials are suitable for a specific function.

**TCH 0-09a / TCH 0-10a**

Older pupils may create models following a given design brief, estimating and measuring accurately.

**TCH 1-09a / TCH 1-10a**  
**TCH 2-09a / TCH 2-10a**

Pupils may have opportunities to represent their ideas manually and digitally.

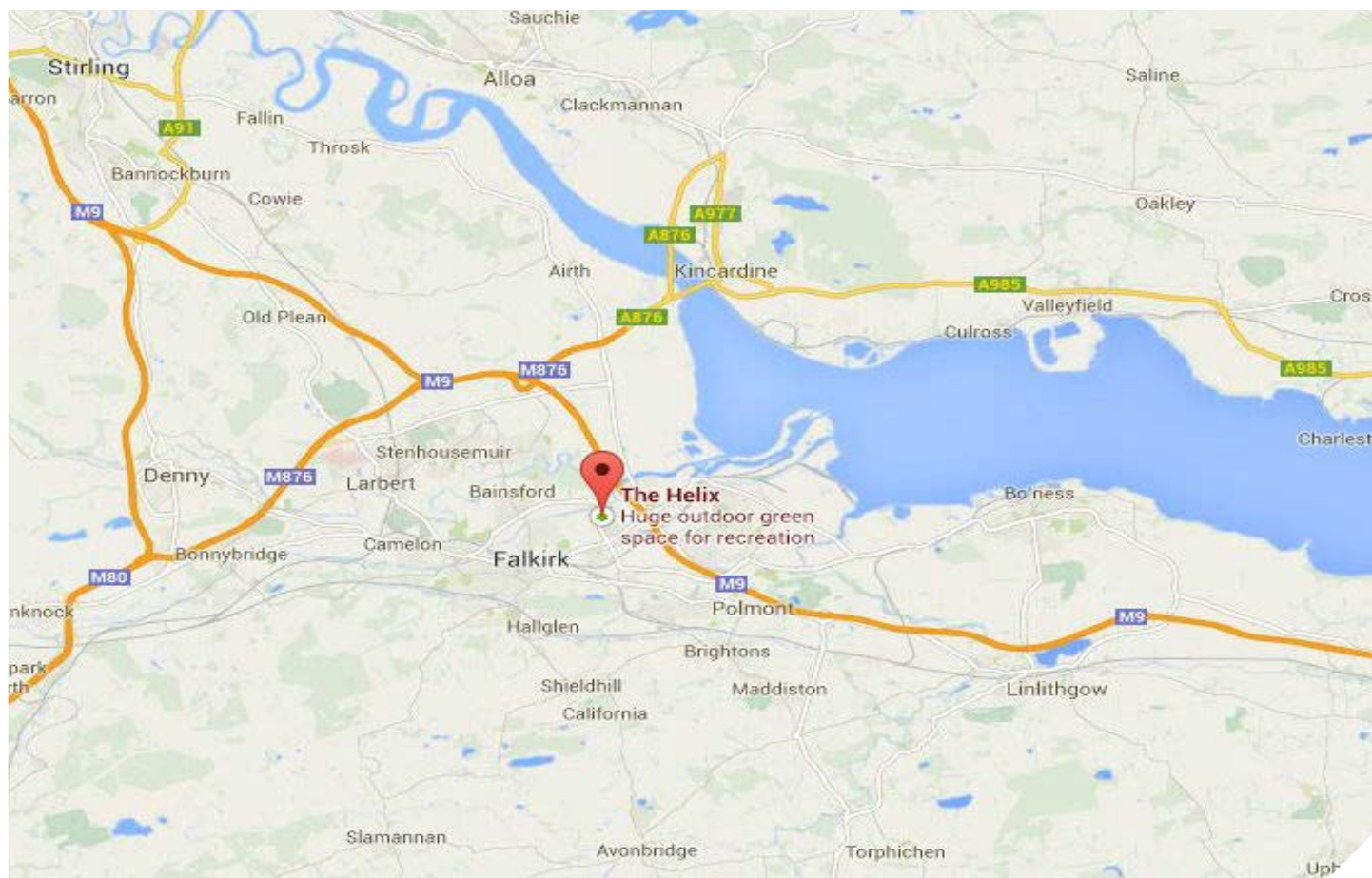
Pupils may also be encouraged to share ideas with others. Making choices and evaluating solutions.

**TCH 0-11a / TCH 1-11a /**  
**TCH 2-11a**  
**TCH 0-12a / TCH 1-12a /**  
**TCH 2-12a**



# Planning your visit

## Location



### **The Helix, Home of The Kelpies The Helix Park, Falkirk FK2 7ZT**

The Kelpies are part of a much bigger community project called The Helix, which was conceived to create a new urban green space. The aim of the project was to transform the underused and derelict landscape and transform the land so that it could sustain wildlife and provide the local community with a state-of-the-art recreational facility.

The site is called the Helix because of the shape of the park when viewed from the air. There are 26km of paths, a children's play area called The Adventure Zone, Splash Play area as well as a maturing area of natural beauty where wildlife is flourishing. Work continues today to develop the lagoon for water sports.

# School Tours at The Kelpies

From only £3.00 per pupil, your class will experience the largest equine sculptures in the world and will find out about the history, the myth and the real-life horses that inspired The Kelpies. Your pupils will also get the chance to go inside a Kelpie – a truly amazing experience!

The School Tours operate during term time from August to June (not including public holidays.) The tours last for 45 minutes and are suitable for Early, First and Second level.

To request a booking, fill in the form at the link below and we'll be in touch to advise you further. You can email us directly for general enquiries, although please read our Terms & Conditions below as this may contain the answer you're seeking. Our tour bookings email address is **kelpies.bookings@thehelix.co.uk**

## School Bookings Terms and Conditions

### Booking and pricing

Booking requests should be made at least two weeks before your visit. Your booking will only be confirmed when we notify you with confirmation.

If you want to increase your numbers on the day, this can be done subject to availability. You are only able to decrease numbers up to one week before your visit. We may be unable to refund a decrease in numbers.

You are able to cancel your booking up to 1 week before your visit with no charge. Failure to cancel on or before this time will incur a charge of 50% of your total booking charge. Failure to show will also incur this charge.

Please provide as much information as possible at the time of booking to allow us to be best prepared for your tour.

## School Visit Prices

Ticket type	Price
Child (Aged 0-15 years)	£3.00
Adult (Aged 16+)	One free per every 10 pupils
Adult (if more than permitted free adults)	£6.50

The minimum number of pupils we can accept per booking is 10. If you have less than 10 we will accept the booking but you will be charged for 10.

These rates are for schools/nurseries and are only accepted during school term time and not available at weekends & public holidays. **PLEASE NOTE:** school/nursery bookings are priced independently of the general pricing due to the exclusivity of your visit and as such under 5's will be charged.

## Payment

Our preferred method of payment is by cheque, credit card or cash on the day, however we can also invoice you for your visit (on request), but not below the threshold of £60.00. An invoice may be issued before your visit.

Tours may be cancelled at short notice due to adverse weather or unforeseen circumstances. If this is the case we will offer an alternative date for your booking or a full refund if already paid.

## Cancellations

If in the event you need to cancel your booking please allow as much notice as possible, a minimum of two weeks is preferred. You may be charged for cancellations made at short notice where we are then unable to fill the slots.

## Student lunches and baggage

A lunch area is not provided but we will do our best to accommodate. Unfortunately this may not be possible at peak times. In fine weather you may wish to picnic on our grassy areas around the Kelpies Plaza or take a walk to the children's play zone where there is also plenty of space to picnic.

Please note that any personal belongings brought to the Helix Park are done so at the owners' risk and that we shall not accept or have any responsibility or liability in connection with loss of or damage to such belongings.

## Adult: Pupil ratio guidelines

Under 16s must be accompanied at all times (please see recommended adult: pupil ratio guidelines below).

Age	Minimum Ratio	Recommended Ratio
Nursery	1:6	1:4
Primary 1 - Primary 2	1:8	1:5
Primary 3 - Primary 7	1:10	1:8
Secondary (S1-S5)	1:10	1:10
16 years and over	1 adult per booking	1:30

## Parking and accessibility

**Coach parking** is provided free of charge. Follow the signposts for a three minute walk to your check-in point at The Visitor Centre. If you require any assistance, please speak to our friendly car park assistants who will be delighted to help you. (Apr – Oct).

**Car parking** can be limited on busy days, so if you plan to travel by car, please allow enough time for parking before your tour and wherever possible reduce the number of vehicles you are bringing to the site.

Please inform us of how you are arriving to allow us to make necessary arrangements.

There are 3 wheelchairs available for use which we will provide free of charge for the tour and will be used at your own risk. Please be aware that the wheelchairs provided require help to push along. If you would like to reserve a wheelchair for your tour, please inform us at the time of booking.

Please be aware that the tour requires walking and covers approximately 0.4km in total with frequent stops.



## Arrival

Please arrive 15 minutes prior to your booked time. The group leader should check in with staff at the reception desk at the Visitor Centre, where you will confirm numbers, complete any outstanding payment and meet your tour guide. Please make us aware of any special needs we can help you with.

## Risk assessment

Activities for schools are designed with full consideration of the risks involved; general risk assessments are available on request.

In the event of an emergency, please follow the instructions of your Tour Guide.

## Additional Resources

### The Kelpies Souvenir Guide

ISBN 078-1-907750-91-5

### SCRAN

Online learning resource / database of images, audio and video clips  
[www.scran.ac.uk](http://www.scran.ac.uk)

### Canals: for information about canals

[www.canaljunction.com](http://www.canaljunction.com)

### Nature Trail

The Helix Park also offers a free nature trail activity in collaboration with RSPB. For more information register at RSPB at [rspb.org.uk/wildchallenge](http://rspb.org.uk/wildchallenge)