

## Don't forget to visit the Science, Learning and Railways Exhibition

You can hear voices from the past!  
 Learn about how a steam engine works!  
 Discover how signals stop accidents!  
 Try the interactive games!  
 Test your knowledge!

Have fun putting these points in the right date order.

The Great Western Railway - GWR.

- A.** It was finished in 1841 and was 118 miles long.
- B.** Eventually, in 1892, the Broad Gauge was ripped up and an era was over.
- C.** Brunel chose the Broad Gauge. The gap between the railway lines was 7 feet and 1/4 inch (2.14 metres). The usual standard was 4 feet 8 1/2 inches (1.435 metres). Therefore GWR trains could travel faster than other trains.
- D.** Finally, look out for the beautifully polished GWR green engines and chocolate and cream coaches.

**F.** A problem came when the two systems met. The locomotives could not travel on each other's tracks. Goods and passengers had to be unloaded at great expense so as to get onto another railway.

**G.** The GWR began in 1833 so people could travel quickly between Bristol and London, using the new steam railway.

**H.** At Didcot you can see the Broad Gauge and a newly built copy of the **Fire Fly** locomotive designed by **Daniel Gooch**. He was another of our great engineers.

**E.** In 1835 the great engineer **Isambard Kingdom Brunel** began to build the line.

1	2	3	4	5	6	7	8
G			A			H	

Answers

### Multiple choice quiz

0-15 A good start - come back and have fun learning some more.  
 16-30 Well done! You're well on your way to being an expert.  
 31-40 Excellent! It's time you joined the Great Western Society.

1a	1	2a	5	3a	3	4a	5	5a	1	6a	3	7a	3	8a	2
1b	2	2b	3	3b	5	4b	1	5b	5	6b	5	7b	1	8b	5
1c	5	2c	1	3c	1	4c	5	5c	3	6c	2	7c	5	8c	3

What was the Great Western Railway?

1	2	3	4	5	6	7	8
G	E	C	A	F	B	H	D

Why did the engine cry?

Because it had a tender behind!

### What's the future?

We are building more big locomotives - like the *County of Glamorgan* and *Lady of Legend*  
 We are mending some engines - like *King Edward II* and *Pendennis Castle*  
 We are making an engine shed for *Fire Fly*  
 There will be a new entrance and more things to do



## Exploring with Archie

Puzzles! News! Facts! Pictures! Quiz! Safety!

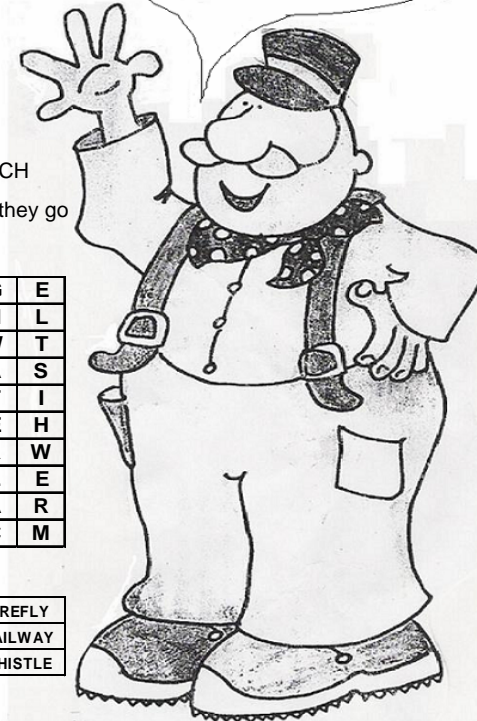
### SAFETY TIPS

Keep off the rails

Don't fall into the pits in the engine shed

Please don't climb onto the engines or rolling stock except where allowed

Hello! I'm Archie, the Great Western engine driver. Look out for me around the site - I've lots to tell you!



### GREAT WESTERN RAILWAY WORD SEARCH

Can you find our special words? Remember - they go in all directions

P	Y	F	A	F	F	L	A	G	E
L	I	L	I	R	E	E	H	N	L
A	H	R	F	N	C	T	F	W	T
T	E	C	U	E	G	H	E	A	S
F	R	R	O	R	R	S	I	T	I
O	B	E	E	O	T	I	K	E	H
R	T	A	A	E	G	V	F	R	W
M	T	U	R	N	T	A	B	L	E
C	Q	N	Y	A	W	L	I	A	R
S	I	G	N	A	L	A	O	C	M

Cross off the words as you find them

ARCHIE	BRUNEL	COAL	FIRE	FIREFLY
FLAG	GOOCH	GREAT	PLATFORM	RAILWAY
SIGNAL	TURNTABLE	WATER	WESTERN	WHISTLE

Why did the engine cry?

Answer: see back page



Follow Archie around Didcot Railway Centre and try our multiple choice quiz. As you go round the Railway Centre look out for the information boards that may help your answer - and Archie is there to give you a clue! Answers are on the back page.



**Q1 -**  
In Victorian times, signals were lit by  
a. electricity  
b. gas  
c. paraffin oil



**4. The turntable**  
Engines run better if they face the right way!  
Turning them is easier than lifting them up and swinging them around!

**Q4 -** Which are the two methods of turning the turntable  
a - pushing it round  
b - electric motors  
c - turning the large crank handles



**5. The engine shed**  
Have fun looking at our engines.  
Climb into the cabs of the ones with wooden steps.  
Try and work out what the controls do!  
Remember - the driver sits on the right.

**Q5 -** The large square ducts on the shed roof.  
a - look pretty  
b - let out smoke and steam  
c - let air in

**8. The main demonstration line**  
On steam days, you can get on a train here.  
The station platform came from Eynsham.  
In the building are pictures of engines that have visited us at Didcot.

**Q8 -** The train whistles before setting off to a - tell the passengers to sit down

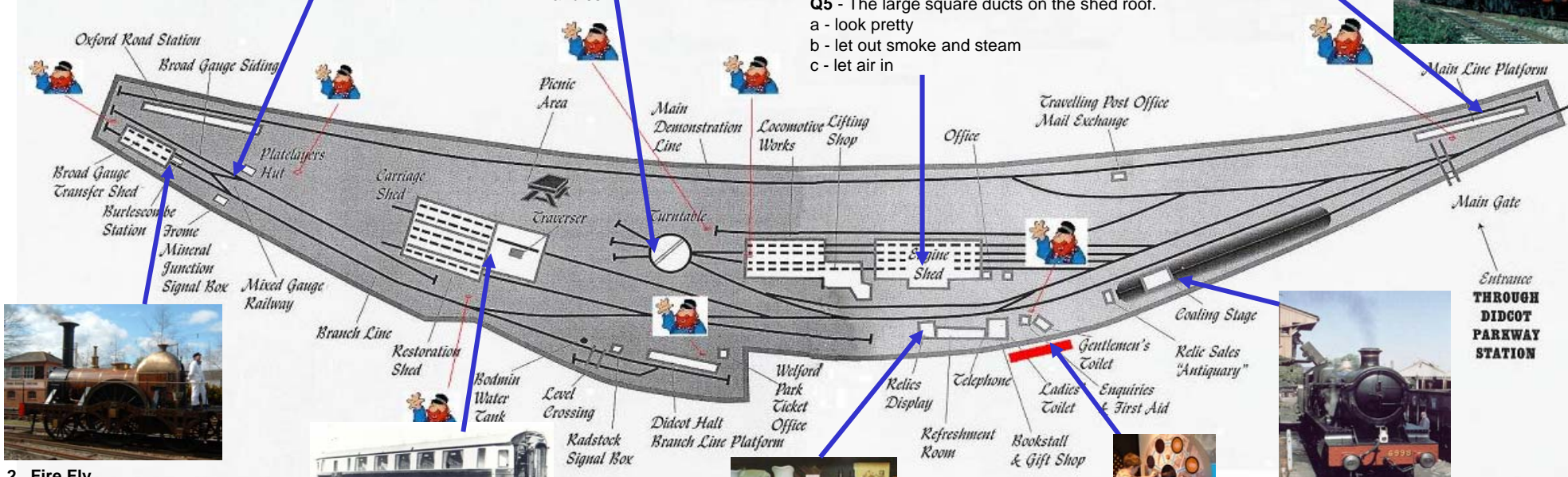
b - show the driver has seen the green flag

c - warn the signalman



**1. The Broad Gauge**

It is just over seven feet wide.  
The rails were found, dug up and brought here.  
Look out for the policeman's hut (like a sentry box) - he came out of this to signal to the trains when railways were just starting, before Victoria was queen.



**2. Fire Fly**  
The engine is a new copy of the very first proper Great Western engine.  
It was the fastest engine in the world in 1839. Imagine travelling in the open carriage behind it!

**Q2 -** Fire Fly's top speed was  
a - 62 mph  
b - 45 mph  
c - 35 mph



**3. The carriage shed**  
There are over 40 carriages here. Many are still being re-built. Look out for the wooden skeletons! You can see the beautiful ornate painting on the older carriages.

**Q3 -** The windows in the roofs of old carriages are  
a - ventilators, to let hot air out  
b - clerestories, to let the light in  
c - peep holes so people can look in



**6. The relics display**  
There are a lot of interesting things to see here such as models and toy trains, old uniforms, signals and pictures.

**Q6 -** Put old pennies in the machine here to get  
a - train tickets  
b - platform tickets  
c - tickets for pets

**Science and Learning Centre**  
see back page



**7. The coal stage**  
Engines come here for coal and there's a water tank on top that feeds the two water cranes in the yard. Coal is tipped into tenders from tubs - each one holds half a ton!

**Q7.** The tank on top of the coal stage holds  
a - 74,250 gallons of water  
b - 3,500 gallons of water  
c - 110,500 gallons of water