November 9th Memory verse:

There is a river,

the streams whereof shall make glad the city of God, the holy place of the tabernacles of the most High.

Psalm 46:4

This verse is a picture of the safety which we have if we have Jesus as our Saviour. In times of war when enemies threatened a city or besieged it, the all important thing was to have a supply of water. With a water supply that could not be cut off, a city could withstand a siege. Christians live, as it were, in the city of God. If we are living in God's city "there is a river." Tiny children could learn the words in bold and understand that the river is God's supply of everything his children need.

Something to read from history

On 9th November 1834 the Macclesfield Canal opened. The first canal in England, The Bridgewater Canal had opened in 1761 so the Macclesfield was quite a latecomer. Canals are artificial rivers that were built to transport goods and materials from one part of the country to another. Before the spreading of railways, canals were the best way to transport coal, crockery, iron ore, limestone, bricks, pottery and so on because roads were rough and difficult for horse drawn carts.



A canal cannot go up or down hill because if it did the water would run away! To start with, canals remained on level ground as much as possible and this meant many twists and turns to avoid going up and down. When a change in level was unavoidable, locks (which you can see in the picture) were used.

A lock is a small section between two levels of a canal. At each end of the lock are watertight gates. The water level inside the lock can be raised or lowered by letting water in or out. The boat enters the lock and the gates are shut. If the boat is going "uphill" water is let into the lock until the level is correct for the higher stretch of the canal. Then the top gates are opened and the boat can leave the lock at the higher level. For a boat coming "downhill" the top gates are opened to allow the boat in and then they are shut. Then water is let out of the lock, the bottom gates are opened and the boat can leave the lock at the lower level. As you can imagine, all this takes time and so the engineers who built the canals tried to avoid putting in locks by routing the canals away from hills. They also used embankments to carry the canal above low ground and cuttings to bring it through higher ground.

Although he did not supervise all the actual building of the Macclesfield canal, its main engineer was the famous Thomas Telford (1757-1834) who died just before the canal was opened. By the time the Macclesfield canal was built, engineers were very experienced at using aqueducts to carry canals over valleys and rivers. An aqueduct is a bridge that carries water. There are two aqueducts on the Macclesfield canal.

Canals became less important as railways developed. However, they were still used to transport goods and materials until after the second world war (1939-1945). If it had not been for the hard work of LTC Rolt (1910-1974) and his friends in the Inland Waterways Association we might have lost our canals completely in England after the war. They wrote books, organised exhibitions and even protests, which prevented many canals from being closed. Nowadays canals form a beautiful

network of waterways where wildlife can thrive and people can enjoy peaceful canal-side walks even in the heart of cities. Instead of goods and materials, the many canal boats that now ply the network carry families on holidays.

People still live on canal boats today and they are very comfortable inside, rather like floating caravans. In the days when canals were used to transport goods, a whole family would live aboard and travel on the canals as a way of life. To begin with horses were used to pull the boats. The horse would walk along a tow-path. The Macclesfield Canal has some interesting bridges called "snake bridges" to enable the horse to cross the canal when the towpath changed sides without the need for unhitching the towing line. Modern canal boats usually have diesel engines.



Working a canal boat for a living was a hard way of life. Unlike a modern canal boat where almost all the space can be used for living accommodation the working boats had living quarters measuring just 8ft long (about 2½m), 6ft 6in wide (about 2m) and 5ft high (about 1½m). The rest of the boat was taken up with the cargo. Tables folded down, beds folded up and cooking was done on a coal stove protected by a brass rail that stopped kettles and pans falling off while the boat was moving. The nature of their life meant that boatmen and their families were very isolated from the rest of society. Always on the move, they did not have the opportunity to build up friendships with those outside their own community. The women worked very hard. Cooking and laundry were hard enough in such conditions and their help was also needed in steering the boat, loading and unloading the cargo and working the locks. When children were small they spent most of the day tied to something secure on the boat for safety. As soon as they were old enough to help they had to work. Many of the boatmen could not read or write. This meant it was hard for children to learn to do so.

In places where the boats loaded and unloaded, Christians set up Missions and Institutes for the help of boatman and their families. The boats would be moored for long enough for Missions such as the The Brentford Boatmen's Institute in Essex to provide Sunday School services for the families who lived on them. School lessons were also provided to help the children learn to read and reading books would be lent out so that the reading lessons could be practised while the children were on their travels. The Brentford mission was set up by the London City Mission and, "The missionary's main work was going from boat to boat talking to the boat people and reading and explaining the Scriptures. He visited the sick and the dying and accompanied boat people to inquests and police courts. In the summer months he held services by the canal side, in the winter in the premises of the Mission Hall where his daughter ran the day school for the boat children."

Something to make and do

Pace or measure out a space 8ft long (about 2½m), 6ft 6in wide (about 2m). It will probably fit

easily into your lounge or main bedroom. Try to imagine how you could fit, sleeping, eating, cooking and washing accommodation for your family into this space. Now imagine that, in addition, the space was only 5ft high (about 1½m). How many members of your own family would be short enough to stand up in such a space?



^{1 &}quot;The Brentford Boatmen's Institute" by Gillian Clegg, Brentford & Chiswick Local History Journal 13 (2004)

Of course, unlike you, the canal family spent most of their time outside – in all weathers – handling the boat, the locks and in earlier times the horse. The small living space was not as unhealthy as it would have been in a stationary building.

The space inside a canal boat might have been cramped but it was beautifully decorated. Jugs, pans and furniture was painted in what has come to be known as "Castle and Roses" designs. On the previous page is a bed board and below a table flap in this style.²



You might like to make your own canal-ware by decorating a paper plate with a picture of a castle and a border of roses.

Lace or ribbon plates were very popular decorations hung inside canal boats. These were plates with a border of holes. Coloured ribbons would be threaded in and out of the holes, making a pretty contrast with the white china. You can use a hole punch to make holes around the edge of your paper plate to imitate this effect and thread coloured ribbon in and out of the holes.

If you want to make your own model of a section of a canal, you can do this either in a sand pit in the garden or (if you are careful) with a deep tray or shallow box of sand indoors. The sand should be just damp enough for you to form a landscape with some hills. If you have some model trees or farm animal you could use them to make a realistic effect. A Lego factory building with a tall chimney would be

a good place for your canal to bring coal. Scoop out a trough to make your canal. Make sure it is level. If you just pour in the water now, guess what will happen to it! Real canals were lined with clay which had to be pressed down hard. You can line your canal with a strip of kitchen foil. The foil can be carefully shaped so that the water does not run away at the ends where your model stops. Pour in the water carefully. You can float any sort of toy boat on your canal or make paper boats specially for the model.

Map work and a walk

Use a map to find your nearest canal. The Canal and Rivers Trust have a good map on their website. If it is possible, plan to go for a walk along the tow path.

Do some bird watching and send a postcard

Gilbert White of Selborne in Dorset enjoyed observing wildlife. He wrote to his friend Thomas Pennant with some suggestions for Pennant's book, the four volume *British Zoology*. I have put some notes of explanation into his letter and marked them in turquiose.³

Selborne, Nov. 9th, 1773. Dear Sir.

As you desire me to send you such observations as may occur, I take the liberty of making the following remarks, that you may, according as you think me right or wrong, admit or reject what I here advance, in your intended new edition of the "British Zoology."

The osprey was shot about a year ago at Frinsham Pond, a great lake, at about six miles from hence, while it was sitting on the handle of a plough and devouring a fish: it used to precipitate itself into the water, and so take its prey by surprise.

² Pictures by kind permission of http://www.canalarts.com

³ Ornithological information kindly provided by William Arrowsmith.

A great ash-coloured butcher-bird was shot last winter in Tisted Park, and a red-backed butcher-bird at Selborne: they are *raræ* aves⁴ in this county....

The butcher-birds referred to are certainly shrikes. The Red-backed Shrike is the modern name of the second of the two mentioned. They used to be common breeding birds in Britain, but they are very rare now. The other species is now known as the Great Grey Shrike, and they are scarce but regular winter visitors in certain localized areas. Shrikes have a particular habit of impaling (spiking) their prey upon some sharp thing, such as a thorn, or a barbed wire fence which forms their larder.

Cornish choughs abound, and breed on Beachy Head, and on all the cliffs of the Sussex coast....

Cornish Choughs are simply referred to now as Choughs, or Red-billed Choughs (to separate from Alpine Chough). We have none breeding in Sussex now, the entire population is currently in Cornwall and Wales, although they are reasonably common in those places. They apparently declined quite severely, but now they are still recovering. They used, until quite recently, to be extinct in Cornwall, but over the last ten years they have re-established themselves there.

Titlarks [meadow pipits] not only sing sweetly as they sit on trees, but also as they play and toy about on the wing, and particularly while they are descending, and sometimes they stand on the ground.

Adanson's⁵ testimony seems to me to be a very poor evidence that European swallows migrate during our winter to Senegal: he does not talk at all like an ornithologist; and probably saw only the swallows of that country, which I know build within Governor O'Hara's⁶ hall against the roof. Had he known European swallows, would he not have mentioned the species? ...

Adanson, it would appear, may have been correct. Swallows have since been proved to have travelled from as far away as South Africa, where they spend the winter. Hence, to see them in Senegal would not be so outrageous as it appears to the writer. Whether or not he actually saw them or not is another matter, but they are commonly found in Senegal in the winter. Swallows will be in that area by November, having left Britain mostly in September, with the odd few leaving in October.

Wag-tails, all sorts, remain with us all the winter.

The statement concerning all sorts of wagtails remaining all winter is not strictly true. Pied Wagtails and Grey Wagtails remain all year, but Yellow Wagtails overwinter in Africa, and none are found in Britain during the winter months. Pied Wagtails are the most obvious and common of the three, and they are particularly obvious in winter, starting from around November through to February and March, as they tend to move around towns and cities in larger flocks than usual, some numbering into the hundreds.

We have vast flocks of female chaffinches all the winter, with hardly any males among them.

When you say that in breeding-time the cock snipes make a bleating noise, and I a drumming (perhaps I should rather have said a humming), I suspect we mean the same thing. However, while they are playing about on the wing they certainly make a loud piping

⁴ Rare birds.

⁵ Michel Adanson (1727–1806) was an 18th-century French botanist.

⁶ General Charles O'Hara (1740–1802) Governor of Gibraltar.

with their mouths: but whether that bleating or humming is ventriloquous, or proceeds from the motion of their wings, I cannot say; but this I know, that when this noise happens, the bird is always descending, and his wings are violently agitated. Soon after the lapwings have done breeding they congregate, and, leaving the moors and marshes, betake themselves to downs and sheep-walks.

Two years ago last spring the little auk was found alive and unhurt, but fluttering and unable to rise, in a lane a few miles from Alresford, where there is a great lake: it was kept awhile, but died. I saw young teals taken alive in the ponds of Wolmer Forest in the beginning of July last, along with flappers, or young wild ducks....

Do you know what "ventriloquous" means?!



What birds do you see in your garden? Keep a careful watch over the next few days. If you have a bird feeder you may see chaffinches that Gilbert White mentions in his letter as they are quite common in gardens and at bird feeders. They are particularly susceptible to two types of disease. One causes growths on the feet and legs, but does not usually affect the bird too much. The other disease can be deadly to chaffinches. To help your garden chaffinches avoid both diseases, make sure that you clean your bird feeder regularly. If you do not have a bird feeder you may put food out for the birds and observe them but try to make sure that the food is in a safe place so that a cat cannot creep up on the feeding birds.

Take a careful note of what birds you see at the feeder or in your garden each day this week. Then write a letter to a friend or family member telling them what you have seen. If you do not want to write a long letter like Gilbert

White's, send a postcard.

You can make your own postcard by cutting out a piece of plain card 21x14 cm. Draw a chaffinch or any other bird that you have seen on one side. Turn the card over and rule a line down the centre so that you have two sections both 10.5x14 cm. Write your message on the left-hand section and your friend's address on the right-hand section, about halfway down. If you put the address too near the top you will have no space for the stamp which should go in the top right-hand corner.

Everyone likes to get a picture postcard (especially a hand made one) so, even if your friend or relative lives quite near you they will be very pleased to get yours.