8th February

Memory Verse:

God is our refuge and strength,
a very present help in trouble.

Therefore will not we fear,
though the earth be removed,
and though the mountains be carried into the midst of the sea;

Though the waters thereof roar and be troubled,
though the mountains shake with the swelling thereof.

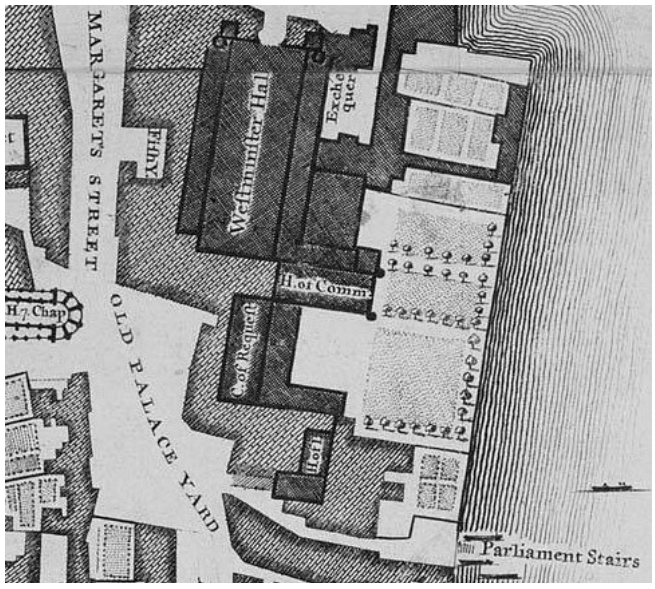
Psalm 46:2-3

This verse tells us that if we trust in the Lord Jesus we need not be afraid. Very small children can learn the words in **bold**. Two or more children learning together can split the words between them, one taking the orange and the other the green words, swapping over for extra practice. The pink words can be said by both together.

Something to read from history

It was a little after 12.30pm on 8 February 1750. In Westminster Hall Britain's lord chancellor, the dignified and austere Earl of Hardwicke, was sitting in Westminster Hall where the Courts of King's Bench and Chancery were in session. Hardwicke was a powerful figure in his full bottomed wig and flowing black robes with their gold brocade. He had risen by talent and patronage to the position of Lord Chancellor with unusual speed and was at the top of his career. It was now nearly five years since, presiding at the trial of the Scottish peers who had been involved in the '45 Rebellion in Scotland, he had meted out stern but impartial justice, following this up with sweeping reforms. It was he who swept away the old feudal powers of the landed gentry in Scotland, disarming the highlanders and forbidding the wearing of the tartan that formed their national dress.

Westminster Hall itself had stood since the eleventh century. Around it had grown up all the institutions of government; parliament, the law courts, government offices. Beneath its massive oak hammer beam roof supported by huge buttresses was a vast space uninterrupted by pillars or supports of any kind. This breath-taking tribute to the skills of medieval craftsmen was still at the heart of the nation. The daylight streamed in through the two great lanterns piercing the lead of the outside roof and lighting the solemn scene at the nerve centre of British justice, ancient, solid and unshakable.



Or so it seemed... for at that instant the proceedings of the court were thrown into confusion as the whole massive building began to shake as though it was about to collapse on the bewigged pates of the judges and the unprotected heads of lesser mortals alike. The Earl leapt to his feet and the learned council began to run towards the huge doors. Just a mile away at Leicester House,[1] home of Frederick, Prince of Wales, the terrified staff feared the foundations of the building were giving way and sinking into the ground. Two miles off in Lincoln's Inn Fields lived the Earl of Hardwicke's friend the Duke of Newcastle. His house, Newcastle House, one of the largest and grandest in fashionable London, was quaking. All through the City of London and Westminster doors were slamming, windows rattling and crockery was falling from shelves. City clerks felt their desks lurch. The Principal Librarian at the new British Library, the physicist Gowin Knight, lived near the duke in Lincoln's Inn. He was busy carrying out a scientific investigation of the phenomenon which had shaken his own house and moved a bed and some furniture, when the duke's servant arrived, sent by the duke to enquire if he knew what on earth was going on.

The phenomenon Knight was trying to investigate was an earthquake. It was the first of a series of quakes that would rock London in 1750. Today we know that the quake had a magnitude of about 2.6 on the Richter scale[2] with an epicentre near London Bridge. The next shock was on 8th March at 5.30 in the morning and somewhat stronger. Horace Walpole describes what happened:

> I had been awake, and had scarce dozed again,—on a sudden I felt my bolster lift my head. I thought somebody was getting from under my bed, but soon found it was a strong earthquake that lasted nearly half a minute, with a violent vibration and great roaring. I got up and found people running into the streets, but saw no mischief done. There has been some; two old houses flung down, several chimnies, and much earthenware. The bells rang in several houses.[3] Admiral Knowles, who has lived long in Jamaica, and felt seven there, says this was more violent than any of them... [4]

As Walpole noted, the terrified people rushed into the streets fearing that they would be buried in the ruins of their shaking houses. But more panic was to follow. A crazy soldier predicted that on the night of April 4 another earthquake would take place and half London and Westminster would be destroyed. Why or how such a person would have any foreknowledge of such an event seems not to have occurred to superstitious people and on the night in question they crowded out of their houses and into the parks and open spaces in great numbers, expecting the worst.

> Many thousands of the inhabitants, believing in the madman, fled for safety, as the night of 4th approached, to open spaces in and around London. Frantic crowds ran about the streets, expecting that the day of judgement was at hand, whilst places of worship were packed by excited and hysterical men and women. [George] Whitefield went to Hyde Park at midnight. There, with deep pathos and majestic voice, he spoke to the multitude, who had taken refuge there, of the unsearchable riches of Christ, and the final consummation of all things.[5]

George Whitefield was the great evangelist you will have read about if you looked at the lessons for 1st July. The silly soldier who pretended to know about earthquakes had been over ruled by God who used people's foolish fear to bring a huge crowd of people to hear the gospel!

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1 No longer standing but near Leicester Square.
2 A scale invented in 1935 to categorise the strength of earthquakes from 1 to 10.
3 These would be the bells used to summon servants which were set jangling by the earthquake.
4 Quoted in http://numberonelondon.net/2018/02/earthquake
5 Henry Johnson *Stories of Great Revivals* (London, 1906)

Map Work

Find a good map of London and look up the places mentioned in the story above marked in green. How far were the buildings described in the story from the epicentre of the earthquake? Which was nearest?

An experiment to do

What causes an earthquake? Usually, it is the sudden breaking of a rock underground along a fault line. Earthquakes are rare in Britain and when they do occur they are not generally severe. This is because Britain is not near a fault line. The movement makes seismic waves that cause the ground to shake. The edges of blocks of rock moving against each other do not move smoothly. The movement is jerky as the rocks catch on each other. You can simulate this by an experiment. You need a block of foam rubber such as is sometimes used in packaging. Break the block in half and place the two pieces on a smooth table with the rough, broken edges together. Put one hand on each of the halves, pushing them together lightly. At the same time push one piece away from you with one hand and pull the other towards you with the other hand. If you keep pushing and pulling, the two pieces will probably stick until a little piece of the foam breaks off and the two pieces suddenly slip past each other. This is what happens to the rocks in an earthquake and it is what causes the jolting and quaking on the earth's surface. The spot underground where the rock breaks is called the focus of the earthquake. The place right above the focus (on top of the ground) is called the epicentre of the earthquake.

Something to make

You can make your own earthquake!
You will need:
two strips of fabric such as tea towels.
a shallow tray
some toy or model houses such as you might find in a Monopoly set – or make some out of Lego.
some soil from the garden

This could be quite a messy activity so cover the table where you are working with some newspaper and be ready to sweep up anything that falls on the floor before it gets trodden on!

Lay your tea towels on the tray side by side with the edges touching. The touching edges are your fault line and the tea towels represent the rocks under the earth. They should be positioned so that the ends of the towels project over the edge of the tray.

Now cover the parts of the towels that are on the tray with the soil. Do this until you cannot see any tea towel peeping through on the tray. (The ends of the towel that hang over the tray should still be visible.) This represents the surface of the ground. Carefully place your model houses over the ground so that you have a little model of a town built over the (now invisible) fault line.

When you are satisfied with your model you can make the earthquake. Two operators are needed. They should stand one each side of the tray. Each operator should grasp the end of one tea towel, keeping very still so as not to disturb the model. A third person should give a signal, upon which

both operators should pull very gently on their towel end so that both towels move slightly in opposite directions. This simulates the movement of the rocks under the earth's surface and causes movement along the fault line. A surprisingly small movement will have catastrophic consequences for your model town.

More about earthquakes on 11th February, 7th June, 9th July and September 28th.