March 5th

Memory Verse:

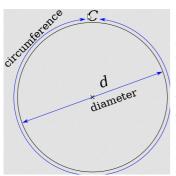
Gather my saints together unto me;

those that have made a covenant with me by sacrifice.

Psalm 50:5

For notes about this verse see the lesson for March 1st.

Some maths



Do you know what π stands for? The Greek letter π represents the ratio or relationship between the circumference of a circle and its diameter. The circumference of a circle is slightly more than three times as long as the diameter. The exact relationship is called π . There are more details in today's Optional Resources file which has activities you can do. You will notice that the explanation given there explains that π is "about 3.142" In the lesson for August 25th we will b looking and the work of the Dutch mathematician, astronomer and pastor Johan Philip Lansberge. One of his achievements was calculating π more accurately than had

previously been done. His result, as he knew well, was however still only "about" the figure he came up with. This is still the case today. Π can be calculated *more* accurately but never *completely* accurately.

But why was the Greek letter π chosen for this number and who chose it? The answer goes back to a rector and mathematician, William Oughtred (c.1574 – 1660) who was born on 5th March.

Oughtred used π but he used it to mean circumference. Thus his π changed with the size of the circle in question. In Oughtred's day what we call the

circumference of a circle was generally called the "periphery". That is why Oughtred chose the Greek "p" $-\pi$.

Oughtred had a fine library and when he died some of his books and papers passed to another mathematician, John Collins (1625-83). He in turn passed them to a William Jones (1665-1749) a Welsh Maths teacher who was a friend of Sir Isaac Newton¹ and Sir Edmund Halley.² Jones took up Oughtred's idea but he used π to stand for not the circumference, but the ratio between the circumference and the diameter and this is how we use π today.

Some archaeology history to read³

We often have items about archaeology in these lessons. Usually they concern things being discovered that have been lost for hundreds or even thousands of years and then rediscovered. Today's item, however, is about a fascinating archaeological site that has been known of for a very long time and was recently destroyed. How would you like to have this magnificent winged bull with a bearded face carved outside your front door? He is carved so that from



 $^{1 \}quad \mbox{More on Newton on 19}^{th} \ \mbox{March (yet to come) and 5}^{th} \ \mbox{July}.$



² We learned about Halley on 9th February and he comes up again on 20th April, 3rd May and 7th July.

³ Information from https://creation.com/nimrod-post-flood-empire-builder,

https://www.pbs.org/newshour/show/reduced-rubble-isis-archaeologists-see-new-day-ancient-city-nimrud and other sources.

the side he looks as if he is walking but from the front he looks as if he is standing still – something which involves him having a total of five legs!⁴ These guardian creatures, related to characters in the ancient *Epic of Gilgamesh*⁵ were placed at palace entrances to awe visitors.

Some of the most magnificent specimens were to be found at Nimrud, an ancient city in Iraq in the so-called Fertile Crescent, the area in Mesopotamia between the Tigris and Euphrates rivers. Nimrud is often identified with the Biblical Calah of Genesis 10:11 and 12. This site was excavated in the mid nineteenth century by Henry Layard (1817-1894) who thought the ruins were those of Nineveh. Despite the enormous difficulties of transporting such huge and ancient items so far, he managed to deliver a pair of them to the British Museum where they are now one of the most highly prized exhibits. And as it turns out, it is a good thing they are there.

Modern Iraq is not a very stable place. From 1979 to 2003 it was ruled by the tyrant Saddam Hussain. During his rule a fabulously valuable gold treasure hoard was found at Nimrud in a burial chamber underneath the floor of one of the ruins. Those few archaeologists who saw it compared to Tutankhamen's tomb⁶ in Egypt for sheer beauty, quality of workmanship and richness. Of incalculable value just as bullion, these items were very briefly displayed and then transferred to an Iraqi bank vault. There were fears that the treasure would be sold by the dictator Hussain for his personal benefit or even melted down because of the value of the gold. It seems likely that some small items were disposed of in this way. However, when Hussain's regime fell in 2003 most of the items were found in a bank vault which, although it had been assaulted during the chaos, had resisted all attempts to get it open. Nimrud itself suffered looting at this time but there was worse to follow.

In 2015 ISIS, an Islamic terrorist organisation, gained control of the area where Nimrud is situated and also the nearby city of Mosul where many of the finds from Nimrud were housed in a museum. On 5th March they started to demolish Nimrud. They ruined everything they could find, gleefully attacking the great winged bulls and other carvings with sledgehammers. This they did in the name of Allah as Islam forbids the depiction of creatures in art and because Nimrud was a symbol of a non Islamic civilization and culture. Then they blew up the great central ziggurat or pyramid with explosives, proudly filming their vandalism using mobile phones. They also destroyed the museum at Mosul where many of the finds from Nimrud had been on display.

When the area was freed from ISIS rule at the end of 2017, it was a long time before archaeologists could go back and assess the damage. ISIS terrorists were still hiding in the area and there was the possibility of of attack. At the present time (2024) work is beginning, with financial support from various American Institutions, to do restoration work and also to sift through the new remains that the explosion has uncovered. Although irreplaceable items have been lost there is hope that new discoveries will be made beneath the rubble.

Over the years many treasures from Nimrud ended up on display far away from Iraq in museums in London, Paris and New York. A local Iraqi man who grew up in the area explained that he felt sad to think of his country's unique treasures taken away elsewhere. He added, "But when ISIS occupied the city, I felt relieved that Nimrud monuments had been transported outside of Iraq and remain protected. And we are proud of them wherever they are."

An Australian archaeologist working in the area estimates that when the original excavations took place, although they were carried out over a 100 year period, they only unearthed about a quarter of the ancient city. "...If, when we're doing our clean-up and restoration, we take some more time to dig down, we will find many more discoveries..." he said.

⁴ You can see this clearly in the British Museum example here: <u>https://www.britishmuseum.org/collection/galleries/assyrian-sculpture-and-balawat-gates</u>

⁵ See the lessons for 28^{th} July and 4^{th} December.

⁶ See the lesson for 4th November.