

August 4th

Memory verse:

The Lord is thy keeper:

the Lord is thy shade upon thy right hand.

Psalm 121:5

Younger children can learn the words in bold.

This verse is a comfort to all Christians. No matter where we are or what happens to us the Lord is looking after us. Younger children can learn the words in bold.

Some Geology¹

Wall Arch, at Arches National Park, Utah collapsed sometime during the night of **August 4, 2008**. There was no one around at the time so the exact time of the fall is not known. You can see the before and after pictures on the right. Rock has continued to fall from the arms of the remaining portion of the arch since and so the popular trail has had to be closed just beyond Landscape Arch.

Referring to the danger of standing on such overhanging rock features, engineering geologist Salvadore Giardina explains,

Since 1970 at least 43 arches have already collapsed. The rate at which they are collapsing is totally inconsistent with the idea they have been hanging around for tens of millions of years – according to some proposed dates hundreds of millions of years. ...Erosion is a lot... faster and more prominent than you might think. Your world view – and the consequences thereof – really does depend on where you stand.²



“It’s rare to observe such dramatic changes” claims the Utah National Park website³ but although observing the actual point of collapse might not be common, 43 collapses since 1970 hardly makes such events “rare”. As Salvadore Giardina explained, erosion is happening too fast for evolutionary long ages to be true. Everything would be down to sea level and beyond if it had been eroding at that speed for that long. Evolutionists often claim that uplift, happening at the same time as erosion, counters erosion's effect. But if this were to be the case we would not find fossils in the uplifted rock. The collapse of arches such as Wall Arch is just one more piece of evidence that the world is not as old as secular geologists believe. It fits in with the picture we have in the opening chapters of the Bible.

1 Image: By G. Edward Johnson - Own work, CC BY 3.0, <https://commons.wikimedia.org/w/index.php?curid=93752258>

2 Information from a presentation on erosion <https://www.youtube.com/watch?v=Fy7Q0nbUbi4&list=PLeROpayG6Sh0CkvKxRIMvXSV1VJ0LgKNm> and <https://creation.com/rock-arches-and-the-flood>

3 <https://www.nps.gov/arch/learn/news/news080808.htm>

Something to do

If you have not done the bridge building experiments from previous lessons, today would be a good day to get out your construction toys and see what you can do. The Lessons for April 9th, March 15th and October 10th all have bridge building suggestions you could try today. At this time of year you could do some bridge construction outdoors too.

Something to read from science history⁴

The German biologist, Walther Flemming, (1843-1905) died on 4th August. It is generally recognised that it was he that discovered chromosomes in 1882. What are chromosomes?



All the characteristics that make you a unique individual, the colour of your hair and eyes, the shape of your facial features, your build and so on are determined by your DNA. This is a set of instructions that builds and grows our bodies and maintains our physical existence.⁵ Inside your cells, the lengths of DNA are wound up in special structures called chromosomes. Human beings have 23 pairs of chromosomes, 46 chromosomes in all. These carry all the information needed to build your unique body before you are born. Inside the nucleus of each cell of your body the chromosomes are arranged in pairs. Of each pair, you have inherited one copy from your mother and one copy from your father. This is why you inherit a mix of characteristics from your parents. It explains why people sometimes say “you look like your mother” and “you look like your father” – you have some characteristics from each.



Chromosomes are of two different types: autosome and allosome. Everyone has 22 autosome pairs of chromosomes and one allosome pair. In the diagram opposite the rows of chromosome pairs can be numbered from left to right. Chromosome 1 is the largest and is over three times bigger than chromosome 22. The 23rd pair of chromosomes, the allosome pair, are two special chromosomes, X and Y. Females have a pair of X chromosomes whereas males have one X and one Y chromosomes.

So in *every cell of your body* you have something that cannot be changed and which marks you out as either a boy or a girl!

In the diagram above you can see the 23 pairs of a male chromosome.

⁴ Information from <https://answersingenesis.org/kids/anatomy/your-birthday/> and other sources.

⁵ We learned about DNA in the lesson for 30th April.