

Scientific Phenomenon covered in Quran:

The Quran, revealed over 1,400 years ago, contains verses that many scholars and believers interpret as aligning with modern scientific discoveries, despite not being a scientific text. These interpretations often highlight descriptions of natural phenomena that were not fully understood until centuries later. Below is a detailed overview of key scientific topics covered in the Quran, based on commonly cited verses and their alignment with modern science, as referenced in various sources:

1. Astronomy and Cosmology

- Origin of the Universe (Big Bang Theory): The Quran describes the heavens and earth as a single entity that was separated.

أَوَلَمْ يَرَ الَّذِينَ كَفَرُوا أَنَّ السَّمَاوَاتِ وَالْأَرْضَ كَانَتَا رَتْقًا فَفَتَقْنَاهُمَا وَجَعَلْنَا مِنَ الْمَاءِ كُلَّ شَيْءٍ حَيٍّ أَفَلَا يُؤْمِنُونَ

Surah Al-Anbiya (21:30) states: “Have those who disbelieved not considered that the heavens and the earth were a joined entity, and We separated them?” This aligns with the Big Bang theory, proposed in the 20th century, which suggests the universe began as a dense point and expanded.

- Expansion of the Universe: Surah Adh-Dhariyat (51:47) says:

وَالسَّمَاءَ بَنَيْنَاهَا بِأَيْدٍ وَإِنَّا لَمُوسِعُونَ

“And the heaven We constructed with strength, and indeed, We are [its] expander.” This corresponds to Edwin Hubble’s 1929 discovery that the universe is expanding, a cornerstone of modern cosmology.

- Celestial Orbits: Surah Al-Anbiya (21:33) mentions:

وَهُوَ الَّذِي خَلَقَ اللَّيْلَ وَالنَّهَارَ وَالشَّمْسَ وَالْقَمَرَ كُلٌّ فِي فَلَكٍ يَسْبَحُونَ

“And it is He who created the night and the day and the sun and the moon; all [heavenly bodies] in an orbit are swimming.” This reflects the modern understanding that celestial bodies, including the sun and moon, move in specific orbits, contrary to the 7th-century belief that the sun orbited the Earth.

- Sun’s Orbit: Surah Ya-Sin (36:38) states:

وَالشَّمْسُ تَجْرِي لِمُسْتَقَرٍّ لَهَا ذَلِكَ تَقْدِيرُ الْعَزِيزِ الْعَلِيمِ

“And the sun runs on course toward its stopping point.” Modern science confirms the sun orbits the Milky Way galaxy, a fact unknown in the 7th century.

- Moon’s Reflected Light: Surah Al-Furqan (25:61)

تَبَارَكَ الَّذِي جَعَلَ فِي السَّمَاءِ بُرُوجًا وَجَعَلَ فِيهَا سِرَاجًا وَقَمَرًا مُنِيرًا

Describes the moon as a “luminous” body and the sun as a “burning lamp,” suggesting the moon reflects light, consistent with modern astronomy.

2. Embryology

- Stages of Human Development: Surah Al-Mu’minun (23:12-14) details embryonic stages:

وَلَقَدْ خَلَقْنَا الْإِنْسَانَ مِنْ سُلَالَةٍ مِّنْ طِينٍ
ثُمَّ جَعَلْنَاهُ نُطْفَةً فِي قَرَارٍ مَّكِينٍ

ثُمَّ خَلَقْنَا النُّطْفَةَ عَلَقَةً فَخَلَقْنَا الْعَلَقَةَ مُضْغَةً فَخَلَقْنَا الْمُضْغَةَ عِظَامًا فَكَسَوْنَا
الْعِظَامَ لَحْمًا ثُمَّ أَنْشَأْنَاهُ خَلْقًا آخَرَ فَتَبَارَكَ اللَّهُ أَحْسَنُ الْخَالِقِينَ

“We created man from an extract of clay. Then We placed him as a sperm-drop in a firm lodging. Then We made the sperm-drop into a clinging clot, and We made the clot into a lump [of flesh], and We made [from] the lump, bones, and We covered the bones with flesh.” This sequence aligns with modern embryology, describing stages like the blastocyst, blood clot-like stage (alaqah), and skeletal development, only confirmed with microscopes in the 20th century. Dr. Keith Moore, an embryologist, noted the accuracy of these descriptions.

- Gender Determination: The Quran implies the male sperm determines gender (Surah An-Najm 53:45-46),

وَأَنَّهُ خَلَقَ الذَّكَرَ وَالْأُنثَى
مِنْ نُطْفَةٍ إِذَا تُمْنَى

a fact confirmed by modern genetics, which identifies the X or Y chromosome in sperm as the determinant.

- Fetal Pain Perception: Surah Al-Hajj (22:2)

يَوْمَ تَرُؤْنَهَا تَذْهَلُ كُلُّ مُرْضِعَةٍ عَمَّا أَرْضَعَتْ وَتَضَعُ كُلُّ ذَاتِ حَمْلٍ حَمْلَهَا وَتَرَى النَّاسَ سُكَارَىٰ وَمَا هُمْ بِسُكَارَىٰ وَلَٰكِنَّ عَذَابَ اللَّهِ شَدِيدٌ

On that Day, you shall see that every nursing mother will forget her nursing baby and every pregnant female will miscarry, and you will see people as if they were drunk, though not drunk; such will be horror of Allah's chastisement.

Suggest sensory development in the fetus, aligning with studies showing pain receptors develop in later embryonic stages.

3. Geology and Earth Sciences

- Mountains as Stabilizers: Surah An-Naba (78:6-7) states:

أَلَمْ نَجْعَلِ الْأَرْضَ مِهَادًا
وَالْجِبَالَ أَوْتَادًا

“Have We not made the earth a resting place? And the mountains as stakes?” Modern geology confirms mountains have deep roots stabilizing tectonic plates, reducing seismic activity, as described by geophysicist Frank Press.

- Iron's Extraterrestrial Origin: Surah Al-Hadid (57:25) says

لَقَدْ أَرْسَلْنَا رُسُلَنَا بِالْبَيِّنَاتِ وَأَنْزَلْنَا مَعَهُمُ الْكِتَابَ وَالْمِيزَانَ لِيَقُومَ النَّاسُ بِالْقِسْطِ وَأَنْزَلْنَا الْحَدِيدَ فِيهِ بَأْسٌ شَدِيدٌ وَمَنَافِعُ لِلنَّاسِ وَلِيَعْلَمَ اللَّهُ مَن يَنْصُرُهُ وَرُسُلَهُ بِالْغَيْبِ إِنَّ اللَّهَ قَوِيٌّ عَزِيزٌ

: -----“We sent down iron, wherein is great military might and benefits for the people.-----” This aligns with the scientific

understanding that iron was delivered to Earth via meteorites, formed in stellar nucleosynthesis.

- Layers of the Earth: Surah At-Talaq (65:12) mentions “seven heavens and of the earth a similar number,

اللَّهُ الَّذِي خَلَقَ سَبْعَ سَمَاوَاتٍ وَمِنَ الْأَرْضِ مِثْلَهُنَّ يَتَنَزَّلُ الْأَمْرُ بَيْنَهُنَّ لِتَعْلَمُوا أَنَّ اللَّهَ عَلَىٰ كُلِّ شَيْءٍ قَدِيرٌ وَأَنَّ اللَّهَ قَدْ أَحَاطَ بِكُلِّ شَيْءٍ عِلْمًا

” interpreted by some as referring to Earth’s layered structure (e.g., crust, mantle, core), though this is less definitive.

4. Oceanography

- Barrier Between Seas: Surah Ar-Rahman (55:19-20) states:

مَرَجَ الْبَحْرَيْنِ يَلْتَقِيَانِ
بَيْنَهُمَا بَرْزَخٌ لَا يَبْغِيَانِ

“He released the two seas, meeting [side by side]. Between them is a barrier so neither transgresses.”

This describes the halocline, a barrier of salinity and density where saltwater and freshwater meet, observed by modern oceanographers.

- Internal Waves and Deep-Sea Darkness: Surah An-Nur (24:40)

أَوْ كَظُلُمَاتٍ فِي بَحْرٍ لُّجِّيٍّ يَغْشَاهُ مَوْجٌ مِّنْ فَوْقِهِ مَوْجٌ مِّنْ فَوْقِهِ سَحَابٌ ظُلُمَاتٌ بَعْضُهَا فَوْقَ بَعْضٍ إِذَا أَخْرَجَ يَدَهُ لَمْ يَكْذِبْ يَرَاهَا اللَّهُ لَمْ يَجْعَلِ اللَّهُ لَهُ نُورًا فَمَا لَهُ مِنْ نُّورٍ

Describes “darknesses within an unfathomable sea which is covered by waves, upon which are waves, over which are

clouds.” This aligns with the discovery of internal waves and the extreme darkness of deep oceans, only detectable with modern equipment.

5. Hydrology (Water Cycle)

- Water Cycle Description: Surah Al-Mu'minun (23:18) and Surah An-Nur (24:43)

وَأَنْزَلْنَا مِنَ السَّمَاءِ مَاءً بِقَدَرٍ فَأَسْكَنَّاهُ فِي الْأَرْضِ وَإِنَّا عَلَى ذَهَابٍ بِهِ لَقَادِرُونَ

أَلَمْ تَرَ أَنَّ اللَّهَ يُزْجِي سَحَابًا ثُمَّ يُؤَلِّفُ بَيْنَهُ ثُمَّ يَجْعَلُهُ رُكَامًا فَتَرَى الْوَدْقَ يَخْرُجُ مِنْ خَلَالِهِ وَيُنَزِّلُ مِنَ السَّمَاءِ مِنْ جِبَالٍ فِيهَا مِنْ بَرَدٍ فَيُصِيبُ بِهِ مَنْ يَشَاءُ وَيَصْرِفُهُ عَنِ مَنْ يَشَاءُ يَكَادُ سَنَا بَرْقِهِ يَذْهَبُ بِالْأَبْصَارِ

Describe rain falling in measured amounts, clouds forming through wind-driven processes, and water settling in the earth. This mirrors the modern understanding of evaporation, cloud formation, and precipitation.

- Fertilizing Winds: Surah Al-Hijr (15:22) mentions

وَأَرْسَلْنَا الرِّيَّاحَ لَوَاقِحَ فَأَنْزَلْنَا مِنَ السَّمَاءِ مَاءً فَأَسْقَيْنَاكُمُوهُ وَمَا أَنْتُمْ لَهُ بِخَازِنِينَ

“Fertilizing winds” that lead to rainfall and pollination, aligning with meteorology’s recognition of wind’s role in cloud formation and plant reproduction.

6. Biology and Zoology

- Water as the Basis of Life: Surah Al-Anbiya (21:30) states:

أَوَلَمْ يَرَ الَّذِينَ كَفَرُوا أَنَّ السَّمَاوَاتِ وَالْأَرْضَ كَانَتَا رَتْقًا فَفَتَقْنَاهُمَا وَجَعَلْنَا مِنَ الْمَاءِ كُلَّ شَيْءٍ حَيٍّ أَفَلَا يُؤْمِنُونَ

“We made every living thing from water.”

This aligns with the scientific fact that water is essential for life, with organisms consisting largely of water, confirmed after the invention of the microscope.

- Reproduction in Plants and Animals: The Quran mentions male and female components in reproduction (e.g., Surah Ar-Ra'd 13:3),

وَهُوَ الَّذِي مَدَّ الْأَرْضَ وَجَعَلَ فِيهَا رَوَاسِيَ وَأَنْهَارًا وَمِنْ كُلِّ الثَّمَرَاتِ جَعَلَ فِيهَا رَوْجَيْنِ اثْنَيْنِ يُغْشِي اللَّيْلَ النَّهَارَ إِنَّ فِي ذَلِكَ لَآيَاتٍ لِّقَوْمٍ يَتَفَكَّرُونَ

Reflecting pollination and sexual reproduction, consistent with modern biology.

- Animal Behavior: Verses like Surah An-Nahl (16:68-69)

وَأَوْحَىٰ رَبُّكَ إِلَى النَّحْلِ أَنْ اتَّخِذِي مِنَ الْجِبَالِ بُيُوتًا وَمِنَ الشَّجَرِ وَمِمَّا يَعْرِشُونَ

ثُمَّ كُلِي مِنْ كُلِّ الثَّمَرَاتِ فَاسْلُكِي سُبُلَ رَبِّكِ ذُلًّا يَخْرُجُ مِنْ بُطُونِهَا شَرَابٌ
مُخْتَلِفٌ أَلْوَانُهُ فِيهِ شِفَاءٌ لِلنَّاسِ إِنَّ فِي ذَلِكَ لَآيَةً لِقَوْمٍ يَتَفَكَّرُونَ

Your Rabb inspired the bees to build their hives in the mountains, in the trees, and in anything which men may build for beekeeping, and feed on every kind of fruit and follow the smooth ways of your Rabb. From their belly comes forth a syrup of different colors, which contains a healing for mankind. Certainly in this there is a sign for those who think.

Describe bees' behavior and honey production, showing an understanding of their complex social systems.

7. Physics and Chemistry

• Atoms and Subatomic Particles: Surah Saba (34:3)

وَقَالَ الَّذِينَ كَفَرُوا لَا تَأْتِينَا السَّاعَةُ قُلْ بَلَىٰ وَرَبِّي لَتَأْتِيَنَّكُمْ عَالِمِ الْغَيْبِ لَا يَعْزُبُ عَنْهُ
مِثْقَالُ ذَرَّةٍ فِي السَّمَاوَاتِ وَلَا فِي الْأَرْضِ وَلَا أَصْغَرُ مِنْ ذَلِكَ وَلَا أَكْبَرُ إِلَّا فِي كِتَابٍ
مُبِينٍ

----- Nothing, even equal to an atom, in the heavens or earth is hidden from Him: nor is there anything smaller or greater than that, but recorded in a clear book.

Refers to matter composed of invisible particles, interpreted as atoms or subatomic particles (protons, neutrons, electrons), a concept only confirmed in modern physics.

- Pain Receptors in Skin: Surah An-Nisa (4:56)

إِنَّ الَّذِينَ كَفَرُوا بِآيَاتِنَا سَوْفَ نُصْلِيهِمْ نَارًا كُلَّمَا نَضِجَتْ جُلُودُهُمْ بَدَّلْنَاهُمْ جُلُودًا غَيْرَهَا لِيَذُوقُوا الْعَذَابَ إِنَّ اللَّهَ كَانَ عَزِيزًا حَكِيمًا

Mentions replacing burned skin to continue feeling pain, aligning with the discovery of pain receptors in the skin, not just the brain.

8. Other Sciences

- Psychology: Surah Adh-Dhariyat (51:21)

وَفِي أَنْفُسِكُمْ أَفَلَا تُبْصِرُونَ

Encourages reflection on the self, with verses classifying the human soul into types (e.g., the commanding soul, the content soul), suggesting an early understanding of psychological states.

- Botany: The Quran mentions plants like grapes, pomegranates, and palms (e.g., Surah Ar-Rahman 55:68, Surah At-Tin 95:1), noting their nutritional and medicinal benefits, consistent with modern botany

- Mathematics and Geometry:

- Fingerprints as Unique Identity: Surah Al-Qiyamah (75:3-4)

بَلَىٰ قَادِرِينَ عَلَىٰ أَنْ نُسَوِّيَ بَنَانَهُ

Emphasizes the uniqueness of fingertips, aligning with the 19th-century discovery of fingerprints as unique identifiers.

Critical Perspective

While many Muslim scholars and believers see these verses as evidence of the Quran's divine origin, critics argue that some interpretations may involve retrospective fitting of vague verses to modern science (e.g., the sun setting in a "muddy spring" in Surah Al-Kahf 18:86). They suggest the Quran reflects 7th-century knowledge and may contain inaccuracies, such as creationist views conflicting with evolutionary theory. However, proponents counter that the Quran's purpose is spiritual guidance, not scientific exposition, and its alignment with modern discoveries is remarkable given the historical context.

Conclusion

The Quran covers a wide range of scientific topics, including astronomy, embryology, geology, oceanography, hydrology, biology, physics, and more. These descriptions, revealed in the 7th century, often align with discoveries made centuries later, which many interpret as evidence of its timeless wisdom. For deeper exploration, sources like The Muslim Vibe () and Hafizon Academy () provide detailed analyses. Always approach such interpretations with an understanding of the Quran's spiritual context and the need for critical analysis to avoid overgeneralizations.