

1: Ancient Greek Inventions and their contribution to modern times

The ancient Greece has a number of inventions and discoveries attributed to them. Even though, the fact remains, most of their discoveries were corrected in subsequent generations. Their findings in the area of astronomy, geography and mathematics, pioneered the age of science.

He was assassinated in B. The new Macedonian king led his troops across the Hellespont into Asia. They conquered huge chunks of western Asia and Egypt and pressed on into the Indus Valley. After he died in B. Soon, those fragments of the Alexandrian empire had become three powerful dynasties: The Hellenistic states were ruled absolutely by kings. By contrast, the classical Greek city-states, or poleis, had been governed democratically by their citizens. These kings had a cosmopolitan view of the world, and were particularly interested in amassing as many of its riches as they could. As a result, they worked hard to cultivate commercial relationships throughout the Hellenistic world. They imported ivory, gold, ebony, pearls, cotton, spices and sugar for medicine from India; furs and iron from the Far East; wine from Syria and Chios; papyrus, linen and glass from Alexandria; olive oil from Athens; dates and prunes from Babylon and Damaskos; silver from Spain; copper from Cyprus; and tin from as far north as Cornwall and Brittany. They also put their wealth on display for all to see, building elaborate palaces and commissioning art, sculptures and extravagant jewelry. They made huge donations to museums and zoos and they sponsored libraries the famous libraries at Alexandria and Pergamon, for instance and universities. The university at Alexandria was home to the mathematicians Euclid, Apollonios and Archimedes, along with the inventors Ktesibios the water clock and Heron the model steam engine. Hellenistic Culture People, like goods, moved fluidly around the Hellenistic kingdoms. Almost everyone in the former Alexandrian empire spoke and read the same language: Koine was a unifying cultural force: No matter where a person came from, he could communicate with anyone in this cosmopolitan Hellenistic world. At the same time, many people felt alienated in this new political and cultural landscape. Once upon a time, citizens had been intimately involved with the workings of the democratic city-states; now, they lived in impersonal empires governed by professional bureaucrats. In Hellenistic art and literature, this alienation expressed itself in a rejection of the collective demos and an emphasis on the individual. Hellenistic philosophers, too, turned their focus inward. Diogenes the Cynic lived his life as an expression of protest against commercialism and cosmopolitanism. And the Stoics argued that every individual man had within him a divine spark that could be cultivated by living a good and noble life. Despite its relatively short life span, however, the cultural and intellectual life of the Hellenistic period has been influencing readers, writers, artists and scientists ever since.

2: Ancient Greek technology - Wikipedia

Ancient Greek technology developed during the 5th century BC, continuing up to and including the Roman period, and beyond. Inventions that are credited to the ancient.

The pieces of information that keep surfacing prove what has been, for some decades, common knowledge among researchers: Talos The famous Talos in the ancient Cretan dialect it means sun , was a fully operational robot, built by Hephaestus as a gift for Minos, King of Crete. Talos was made of copper and was huge. It protected Crete from her enemies and supervised the application of laws. It had the power to throw enormous rocks against his opponents or to burn them with his boiling hot breath! In this way it drove back the hostile boats, protecting the island. According to tradition, when the Argonauts returned from Kohida, they managed to destroy Talos with the help of Medea, the witch. Medea used her forces to confuse Talos and the Argonauts wounded his leg. The blood pumped out of his one and only vein as melted metal! Many coins, picturing Talos were found in the city of Phaistos. Automatic doors Ancient technology was naturally placed in the service of religion! When a believer was making an offertory to a God, the God should thank him, no matter the hour of the day! So, with the help of technology, certain doors opened automatically when the fire was lit on the altar and even certain statues began moving! It is said that Heron and Ktesibios had constructed mechanisms that sounded the trumpets of a temple when the altars were lit. The interior of temple was sprayed with scented water, metallic birds began singing and some statues began flying. It is also said that the lighting conditions in and around the temple were regulated, creating artificial fog, when necessary. He initially worked as shoemaker but he eventually decided to explore his ideas. He is better known as an engineer for his hydraulic mechanisms, simple machines and automations, but he was also an important mathematician of his time. When the water was heated and began to boil, the steam was relieved by two nozzles, configured in a polar alignment. The container was fixed in such a way that was allowed to rotate. The steam release caused a rotating motion of the container that could be used as a steam motor for various applications. The principle of this simple configuration is the same used today for jet propulsion. Air and water pumps Ctesibius fl. He was the son of a barber but the highly technical environment of Alexandria of this time helped him to leave the barbershop soon. Using the power of water and air, he devised a number of ingenious mechanisms: Another useful invention was a portable double water pump used by the firemen to put off the fires on the big buildings of his city. Although he did not actually invent it, he greatly improved it. Ctesibius liked music and had an idea of using waterpower for his music creations. This was pumping air through pipes! Talking about musical instruments, it would be an omission to not mention Pythagoras. He meditated the relation of the music to the mathematics and found some rules that make the making of musical instruments much easier. He managed to express the musical harmony with mathematic rules through his philosophical and scientific approach. The piston pump was also used by Ctesibius to pump water or air. These pumps were used in many constructions since then. They can pump water or air depending on the accuracy of the construction. In many applications we can find them in use until today, because of their simplicity and their reliability.

3: Ancient Greece for Kids: Science and Technology

History >> Ancient Greece. The Ancient Greeks made many advancements in science and technology. Greek philosophers began to look at the world in different ways. They came up with theories on how the world worked and thought that the natural world obeyed certain laws that could be observed and learned through study.

Concrete Even though the first use of this incredible architectural innovation predates even the earliest years of Roman civilization, the arch truly became an essential structure in the general architecture paradigm once the Romans made necessary changes in its construct to fit it within their designing schemes. It was the Romans who first found out a way to set an arch on top of two tall pedestals such that it would span over a walkway and in many cases, even highways. These arches went on to become a pivotal engineering construct that laid the foundation for many of the subsequent structural highlights of ancient Rome. Many bridges were built upon these arches, and so were the aqueducts, sewers, amphitheaters and the colossal Colosseum. The merits of Roman arches were utilized later in the middle ages when some of the most magnificent cathedrals in the history were built. In fact, it was the only known method for roofing a building without the use of support beams.

Grid based cities Again, the Romans were not the first to start grid based establishments and cities, the earliest of basic grid planning dates as far back as Mahjong Daro and Harappa. But it was the Romans who embraced this concept, added a new dimension to it and implemented it on such a large scale that grid based settlements became famous. A basic Roman grid was characterized by a rectangle or a square in a nearly perfect orthogonal layout of streets. The two main streets, *cardo* and *decumanus*, would cross each other at a right angle in the center of grid. This grid was an ideal structure to organize the different components of city such as housings, theaters and stores into particular blocks. Rather than making it a monotonous array of blocks, Romans incorporated various items such as open theaters, public baths, markets and other recreational facilities within a city grid. The Romans then went on to standardize this pattern of settlement by building colonial cities and military camps throughout their huge empire, from Britain to North Africa, in Italy and also in all of the Eastern Mediterranean region.

Sewers and sanitation The ancient Roman Empire in many ways boasted the highest level of sewage and sanitary management in the contemporary ages. They had established a number of public baths, latrines and an interlinked sewage line binding them all together in a complex yet an efficient feat of engineering. Rome and other major cities had an extensive network of sewers and drains that ran along the sides of streets. The abundance of water in the Roman aqueducts along with runoff water from local streams was regularly used to flush these drains and sewers. The flush would then dump all the waste into the nearest river usually the Tiber, which does not sound the best of sanitary solution, but was far better than leaving the sewage lying around in the streets. The ancient Romans also excelled in the use of covered gutter and sewer lines to which a majority of houses in the city was connected. Without a doubt, their sewage and sanitation system made the ancient Romans a forerunner for newer practices in sanitation throughout the world.

Roman roads and highways played a pivotal role in the rise of the Roman state, expanding all across the Roman Republic and then the Roman Empire. In a period of about years, they built about 55, miles of paved highways around the Mediterranean basin and across Europe – a feat that ensured a fast and efficient movement of goods, soldiers and information across the entire empire. Roman roads usually followed a straight route across the countryside, making the travel efficient and quite fast. These expertly engineered routes were as easy to navigate. The Romans were one of the first to use road signs and mile markers. They also made sure the majority of highways were well protected and patrolled.

Aqueducts Back in the times of the Roman Empire and Republic, the Romans enjoyed quite a many facilities. Many of these would not have been possible had they not mastered the technique of building aqueducts to tap water from rivers, springs and other reservoirs. The first of Roman aqueducts were built around BC and thereon took off as an engineering marvel that used the downhill flow of water into the city centers. The entire aqueduct network relied on various factors and the use of gravity to maintain a continuous flow – whose overall engineering concept was far more remarkable for its time. Once the water would reach the bigger cities like Rome, large reservoirs would hold it up. Then the connected public baths, fountains, toilets and private

villas would tap in the network and access the water. Being one of the most visible symbols of the ancient water system, the aqueduct stands as a true testament of ancient Roman engineering and innovation. See Also, 10 Ancient Rome Facts 5. Roman numerals As the name already suggests, the Roman numerals originated in ancient Rome. Constituting into one of the popular number systems that is still used for various purposes today, the first usage of these numbers dates back to somewhere between and BC. Back then, much of the existing numbers and counting systems could not keep up with ever increasing calculation requirements. The Roman numerals were developed to serve the exact purpose of delivering a standard counting method that could be efficiently used in communications and trade. Though the Roman numbers also came with their flaws such as absence of the number zero and inability to calculate fractions, among many others. However, these numbers were able to survive even after the fall of the ancient Roman Empire. Their use in movies titles, cornerstones and many other popular and cultural references today shows the long lasting legacy of this ancient numeral notation. Surgery tools and techniques The ancient Romans invented a number of surgical tools and techniques that pioneered subsequent developments in the field of medicine and surgery. The Roman medical scenario was heavily influenced by the surgical advances achieved by the ancient Greeks. Medical practitioners in ancient Rome not only utilized all available tools to their best, but also developed as many new tools themselves and efficiently devised the use of cesarean section. But they made the biggest of leaps in battlefield related surgery by making medical preparedness and remedy in battle a prime concern. During the reign of Augustus, the military medical corps was established to assist injured soldiers in battles. The Romans also mastered medical innovations to curb immediate blood loss in battles, thus saving thousands of lives. They also invented tools like bronze scalpels, obstetrical hooks, bone drills and forceps, and also the rather frighteningly named vaginal speculum. The Romans are also attributed with pioneering the earliest form of antiseptic surgery since they used to dip medical tools in hot water to disinfect them before surgery. See Also, Top 10 Ancient Weapons 3. Julian calendar Once the ancient Romans became the biggest of the civilization of the ancient western world, they also realized the complications of maintaining a standard calendar applicant throughout the empire. It did not help either when they imposed months with odd number of days only because of a prevailing superstition against even numbers. Eventually, the calendar was so far off the regular timeline that Julius Caesar implemented a new reform, making the duration of a solar year as the basis for the calendar. He also instituted the 12 months in a year. It is clear from the name itself, the calendar was named after Julius Caesar himself. Some of the Eastern Orthodox churches use it to calculate holidays even today. Even though it was a seemingly perfect innovation for its time, the Julian calendar miscalculated the solar year by about 11 and half minutes. This eventually led to the creation of the Gregorian calendar that heavily used the Julian model and was adopted in AD. Newspaper History is rife with autocrats who impulsively craved to keep public in the loop about official announcements and developments. These handwritten news sheets were published daily and then were posted by the government in the Roman Forum from the year 59 BC to somewhere around AD. The majority of content in Acta diurna usually comprised of news on political happenings, trials, military campaign, executions, major scandals and other similar subjects. The Romans also published the Acta Senatus that recorded the proceedings in the Roman senate, though this sort-of journal was kept out of public reach until Julius Caesar made it accessible to everyone as a part of popular reforms he introduced during his reign. When the first of the modern newspapers were introduced in Europe, they may have owed only a little or even nothing to earliest of efforts like Acta diurna, it stands as a pioneer in news publishing history. Concrete The ancient Romans were particularly skillful in rapidly building new structures and at the same time, they were also good at maintaining their structural integrity and built. The revolutionary concrete developed by the Romans inhibited an impeccable built and lasting formation “ playing a huge part in the architectural accession of ancient Rome. The scientists who studied its composition in detail found it to be superior to modern day concrete and the far more environment friendlier than modern counterpart. The piece of concrete they experimented on had been submerged in the Mediterranean for more than years. On further analysis of the concrete, it was found to produce a compound that significantly differed from the concrete we use today and made it an incredibly stable binder. The Romans used to combine their cement with volcanic rocks popularly known as tuff, enabling the resulting concrete to endure possible chemical decays. It

is not much of a surprise that many ancient Roman structures such as the Pantheon, the Colosseum and the Roman forum having been standing since more than two millennia. See Also, Top 10 ancient Roman foods and drinks Final Conclusion Courtesy of the inventions and innovations listed above, it is only fair to say the Romans were eventually able to step outside the gaint shadows the ancient Greeks. From the engineering marvels like aqueducts and arches to the amazingly stable concrete that stood the test of time, the ancient Romans truly succeeded in inventing and innovating their way to become one of the most prominent empires of the ancient world. Though many of their advances may have been forgotten in the light of far superior modern technological developments, their inventions encouraged subsequent societies to adopt news ways of governing, living and understanding the world.

4: Ancient Greece - Wikipedia

The ancient Greeks are often credited with building the foundations upon which all western cultures are built, and this impressive accolade stems from their innovative contributions to a wide range of human activities, from sports to medicine, architecture to democracy. Like any other culture before.

Archaic period in Greece Dipylon Vase of the late Geometric period, or the beginning of the Archaic period, c. In the 8th century BC, Greece began to emerge from the Dark Ages which followed the fall of the Mycenaean civilization. Literacy had been lost and Mycenaean script forgotten, but the Greeks adopted the Phoenician alphabet, modifying it to create the Greek alphabet. Objects with Phoenician writing on them may have been available in Greece from the 9th century BC, but the earliest evidence of Greek writing comes from graffiti on Greek pottery from the mid-8th century. It was fought between the important poleis city-states of Chalcis and Eretria over the fertile Lelantine plain of Euboea. Both cities seem to have suffered a decline as result of the long war, though Chalcis was the nominal victor. A mercantile class arose in the first half of the 7th century BC, shown by the introduction of coinage in about BC. The aristocratic regimes which generally governed the poleis were threatened by the new-found wealth of merchants, who in turn desired political power. From BC onwards, the aristocracies had to fight not to be overthrown and replaced by populist tyrants. In Sparta, the Messenian Wars resulted in the conquest of Messenia and enslavement of the Messenians, beginning in the latter half of the 8th century BC, an act without precedent in ancient Greece. This practice allowed a social revolution to occur. Even the elite were obliged to live and train as soldiers; this commonality between rich and poor citizens served to defuse the social conflict. These reforms, attributed to Lycurgus of Sparta, were probably complete by BC. Political geography of ancient Greece in the Archaic and Classical periods Athens suffered a land and agrarian crisis in the late 7th century BC, again resulting in civil strife. The Archon chief magistrate Draco made severe reforms to the law code in BC hence "draconian", but these failed to quell the conflict. Eventually the moderate reforms of Solon BC, improving the lot of the poor but firmly entrenching the aristocracy in power, gave Athens some stability. By the 6th century BC several cities had emerged as dominant in Greek affairs: Athens, Sparta, Corinth, and Thebes. Each of them had brought the surrounding rural areas and smaller towns under their control, and Athens and Corinth had become major maritime and mercantile powers as well. Rapidly increasing population in the 8th and 7th centuries BC had resulted in emigration of many Greeks to form colonies in Magna Graecia Southern Italy and Sicily, Asia Minor and further afield. The emigration effectively ceased in the 6th century BC by which time the Greek world had, culturally and linguistically, become much larger than the area of present-day Greece. Greek colonies were not politically controlled by their founding cities, although they often retained religious and commercial links with them. The emigration process also determined a long series of conflicts between the Greek cities of Sicily, especially Syracuse, and the Carthaginians. This way Rome became the new dominant power against the fading strength of the Sicilian Greek cities and the Carthaginian supremacy in the region. One year later the First Punic War erupted. In this period, there was huge economic development in Greece, and also in its overseas colonies which experienced a growth in commerce and manufacturing. There was a great improvement in the living standards of the population. Some studies estimate that the average size of the Greek household, in the period from BC to BC, increased five times, which indicates[citation needed] a large increase in the average income of the population. In the second half of the 6th century BC, Athens fell under the tyranny of Peisistratos and then of his sons Hippias and Hipparchos. However, in BC, at the instigation of the Athenian aristocrat Cleisthenes, the Spartan king Cleomenes I helped the Athenians overthrow the tyranny. Afterwards, Sparta and Athens promptly turned on each other, at which point Cleomenes I installed Isagoras as a pro-Spartan archon. Eager to prevent Athens from becoming a Spartan puppet, Cleisthenes responded by proposing to his fellow citizens that Athens undergo a revolution: Classical Greece Main article: Classical Greece Early Athenian coin, depicting the head of Athena on the obverse and her owl on the reverse€”5th century BC In BC, the Ionian city states under Persian rule rebelled against the Persian-supported tyrants that ruled them. Sparta was suspicious of the increasing Athenian power funded by

the Delian League, and tensions rose when Sparta offered aid to reluctant members of the League to rebel against Athenian domination. These tensions were exacerbated in 427 BC, when Athens sent a force to aid Sparta in overcoming a helot revolt, but their aid was rejected by the Spartans. In an alliance between Athens and Argos was defeated by Sparta at Mantinea. Another war of stalemates, it ended with the status quo restored, after the threat of Persian intervention on behalf of the Spartans. The Spartan hegemony lasted another 16 years, until, when attempting to impose their will on the Thebans, the Spartans were defeated at Leuctra in 371 BC. The Theban general Epaminondas then led Theban troops into the Peloponnese, whereupon other city-states defected from the Spartan cause. The Thebans were thus able to march into Messenia and free the population. Deprived of land and its serfs, Sparta declined to a second-rank power. The Theban hegemony thus established was short-lived; at the Battle of Mantinea in 418 BC, Thebes lost its key leader, Epaminondas, and much of its manpower, even though they were victorious in battle. In fact such were the losses to all the great city-states at Mantinea that none could establish dominance in the aftermath. In twenty years, Philip had unified his kingdom, expanded it north and west at the expense of Illyrian tribes, and then conquered Thessaly and Thrace. His success stemmed from his innovative reforms to the Macedonian army. Phillip intervened repeatedly in the affairs of the southern city-states, culminating in his invasion of 356 BC. Decisively defeating an allied army of Thebes and Athens at the Battle of Chaeronea BC, he became de facto hegemon of all of Greece, except Sparta. He compelled the majority of the city-states to join the League of Corinth, allying them to him, and preventing them from warring with each other. Philip then entered into war against the Achaemenid Empire but was assassinated by Pausanias of Orestis early on in the conflict. Alexander the Great, son and successor of Philip, continued the war. When Alexander died in 323 BC, Greek power and influence was at its zenith. However, there had been a fundamental shift away from the fierce independence and classical culture of the poleis and instead towards the developing Hellenistic culture. Hellenistic Greece Main articles: Although the establishment of Roman rule did not break the continuity of Hellenistic society and culture, which remained essentially unchanged until the advent of Christianity, it did mark the end of Greek political independence.

5: 15 Greek Inventions That Changed The World Forever

Ancient Greek Inventions: Historical Greece's Contribution to Modern Society Ancient Greek Inventions are in fact the original concepts of some of our most well known products, to this day. Those original concepts have just taken on a more modern form.

Those original concepts have just taken on a more modern form. The early days of the Greek civilization gave birth to many admirable scientists, and they in turn have managed to pave the way for further discoveries by the following generations. If your curiosity has been peaked and you are wondering exactly what the ancient Greeks contributed to our modern century, other than the well known concepts of democracy and trial by jury, the following is a just a small sample of what they had to offer. It was thought up by Ctesibus, a Hellenistic engineer and inventor. During those days, time was usually indicated using a water clock. Ctesibus then used an elaborate system comprised of dropping pebbles on to a gong to make a sound. This sound was set to happen at specific time intervals, giving rise to a rather crude yet effective version of the modern alarm clock. Plato himself is also credited with creating a version of an alarm clock that combined water filling up a vessel and making pebbles drop to make a sound. They were originally used to figure out how much distance has already been travelled by a vehicle. It helped the Greeks to create roads and bridges for travelling, set milestones at specific distances, and helped develop their empire, boosting their economic standing. The first odometers

Ancient Greek Inventions 3 - Central heating Where would we be without central heating? In ancient Greece, the Temple of Ephesus was kept heated through flues planted on the floor. The flues circulated the warm air generated through a fire, providing a comfortable temperature throughout. The concept was mostly forgotten by the following generations but was rediscovered during the Industrial Revolution and continuously developed until it reached the product we are familiar with these days.

Ancient Greek Inventions 4 - Thermometer The thermometer is constantly being used for a wide array of needs these days, from health care to chemistry. The original technology behind it is quite old, dating back almost 2, years ago. It was the Greeks of Alexandria that first figured out how air expands when exposed to high temperatures. It was Philo of Byzantium who first applied this technique to determine the temperature and the concept was later on improved by Galileo. Before the ancient Greeks introduced maps, guides were vague, prone to mistakes and misinterpretations, and mostly written by sailors in a descriptive manner. It was the Greek Anaximander who conceptualized the idea of longitude and latitude to standardize land plotting. Other Greeks like Strabo and Eratosthenes further created maps spanning the world.

Ancient Greek Inventions 6 - Crane The crane was an important tool that is still being used today for construction purposes. Unlike the original Greek design, however, the modern crane is sturdier and capable of carrying heavier weight. In ancient Greece, the cranes were usually powered by donkeys and other animals capable of carrying burdens as well as the use of individuals of great strength.

Ancient Greek Inventions 7- Levers Levers are simple designs that had a huge impact on various industries especially in construction. Levers use a pulley system to lift up heavy objects using a minimum amount of force. The item was first described by the Greek mathematician Archimedes during the BC. The wheelbarrow, a one-wheel transportation equipment that can be held and pushed by users to carry relatively light loads, is also attributed to the ancient Greeks. Many researchers believe a product of similar likeness was probably used in farming even before the Greeks times, but no evidence to the matter has survived to prove so.

Ancient Greeks Inventions 9 - Cannon Believe it or not, the ancient Greeks had a significant part in the development of cannons, or at least the concept behind them, for use at war. The old Greek cannons operated through compressed air, launching projectiles to a target. It is believed that the cannon was conceptualized by Ctesibius of Alexandria. He was a doctor and an inventor, and many consider him the first published scientist in the area of pneumatics the science of compressed air. Have your say about what you just read, or share this page with others on Facebook. Leave a comment in the box below.

6: What Did Modern and Ancient Greeks Invent?

Exhibits. View approximately operating models of ancient Greek inventions. The ancient Greek technological marvel (from the robot - servant of Philon to the cinema of Heron and from the automatic clock of Ktesibios to the analog computer of Antikythera) covers the period from BC until the end of the ancient Greek world.

The exhibition highlights the brilliance of the inventors of our past, and the amazing creations that laid the foundations for the technology we see today. Here are just five of the impressive inventions featured in the new exhibition: Among his many inventions was a human-like robot in the form of a maid, who held a jug of wine in her right hand. When the visitor placed a cup in the palm of her left hand, she automatically poured wine initially and then she poured water into the cup mixing it when desired. The robot was created through a complex construction consisting of containers, tubes, air pipes, and winding springs, which interacted through variants in weight, air pressure, and vacuum. The result is the oldest known robot created by man. The automatic servant by Philon of Byzantium. Although few details of his life are known, he is regarded as one of the leading scientists in classical antiquity. King Hiero II commissioned Archimedes to design a huge ship, the *Syracusia*, which could carry people and would be used for luxury travel, carrying supplies, and as a naval warship. It was turned by hand, and could also be used to transfer water from a low-lying body of water into irrigation canals. One of his more artistic creations was an automatic theatre that presented *Nauplius*, a tragic tale set in the period after the Trojan War. The entirely mechanical play, which was almost ten minutes in length, was powered by a binary-like system of ropes, knots, and machines operated by a rotating cylindrical cogwheel. Even the sound of thunder was produced, created by the mechanically-timed dropping of metal balls onto a hidden drum. Although its exact nature is unclear, the accounts of ancient historians seem to describe it as a sort of crane equipped with a grappling hook that was able to lift attacking ships partly out of the water, then either cause the ship to capsize or suddenly drop it. When the Roman fleet approached the city walls under cover of darkness, the machines were deployed, sinking many ships and throwing the attack into confusion. Historians such as Polybius and Livy attributed heavy Roman losses to these machines, together with catapults also devised by Archimedes. A painting of the Claw of Archimedes by Giulio Parigi, taking the name "iron hand" literally. The device, sometimes called the "Archimedes heat ray", was used to focus sunlight onto approaching ships, causing them to catch fire. It has been suggested that a large array of highly polished bronze or copper shields acting as mirrors could have been employed to focus sunlight onto a ship. This would have used the principle of the parabolic reflector in a manner similar to a solar furnace. A test of the Archimedes heat ray was carried out in by the Greek scientist Ioannis Sakkas. The experiment took place at the Skaramagas naval base outside Athens. On this occasion 70 mirrors were used, each with a copper coating and a size of around five by three feet 1. The mirrors were pointed at a plywood mock-up of a Roman warship at a distance of around feet 50 m. When the mirrors were focused accurately, the ship burst into flames within a few seconds. Archimedes Mirror by Giulio Parigi.

7: Top 10 ancient Roman inventions

Archaic Greece saw advances in art, poetry and technology, but most of all it was the age in which the polis, or city-state, was invented. The polis became the defining feature of Greek political.

The largest, Sparta, controlled about square miles of territory; the smallest had just a few hundred people. However, by the dawn of the Archaic period in the seventh century B. They all had economies that were based on agriculture, not trade: Also, most had overthrown their hereditary kings, or basileus, and were ruled by a small number of wealthy aristocrats. Visit Website These people monopolized political power. For example, they refused to let ordinary people serve on councils or assemblies. They also monopolized the best farmland, and some even claimed to be descended from the gods. Land was the most important source of wealth in the city-states; it was also, obviously, in finite supply. The pressure of population growth pushed many men away from their home poleis and into sparsely populated areas around Greece and the Aegean. By the end of the seventh century B. Each of these poleis was an independent city-state. In this way, the colonies of the Archaic period were different from other colonies we are familiar with: The people who lived there were not ruled by or bound to the city-states from which they came. The new poleis were self-governing and self-sufficient. The Rise of the Tyrants As time passed and their populations grew, many of these agricultural city-states began to produce consumer goods such as pottery, cloth, wine and metalwork. Trade in these goods made some people—usually not members of the old aristocracy—very wealthy. These people resented the unchecked power of the oligarchs and banded together, sometimes with the aid of heavily-armed soldiers called hoplites, to put new leaders in charge. These leaders were known as tyrants. Some tyrants turned out to be just as autocratic as the oligarchs they replaced, while others proved to be enlightened leaders. Pheidon of Argos established an orderly system of weights and measures, for instance, while Theagenes of Megara brought running water to his city. However, their rule did not last: The colonial migrations of the Archaic period had an important effect on its art and literature: Sculptors created kouroi and korai, carefully proportioned human figures that served as memorials to the dead. Scientists and mathematicians made progress too: Anaximandros devised a theory of gravity; Xenophanes wrote about his discovery of fossils; and Pythagoras of Kroton discovered his famous theorem. The economic, political, technological and artistic developments of the Archaic period readied the Greek city-states for the monumental changes of the next few centuries.

8: Top 10 inventions and discoveries of ancient Greece

The famous Talos (in the ancient Cretan dialect it means sun), was a fully operational robot, built by Hephaestus as a gift for Minos, King of Crete.

Check new design of our homepage! And, most certainly, the Greeks are also known for their inventions, versions of which we still use. Historyplex Staff Last Updated: Mar 26, Greece, officially known as the Hellenic Republic is a country in the southeastern part of Europe. The country shares its borders with Albania, the Republic of Macedonia; the northern neighbor is Bulgaria and to the east lies Turkey. Greece has one of the longest coastlines in the world which measures an amazing 14, km in length placing it at the tenth position in this respect. Athens is the capital city of Greece. Greece today is one of the most powerful countries in the European continent and it is safe to say that modern Greece traces its roots back to ancient Greece. Greek civilization is considered to be the birthplace of many astonishing discoveries and some of these ancient Greek inventions are used even today by man. While some of them laid the foundations of a better future. List of Greek Inventions The Olympic Games Olympic games are more than just a mere discovery, they are a global phenomenon. The Olympic games host participants of more than countries around the world. The first record of the Olympics being played was on the big and wide plains of Olympia in ancient Greece in B. These games were played in honor of their prime Greek God Zeus and it featured events such as running and wrestling. These games lasted for an entire day, then in B. Olympics today have drawn a lot of inspiration from this rich heritage. This remains one of the most popular inventions by the Greek people used today. Money The concept of money is considered as one of the greatest discoveries in the history of mankind. Even before the barter services were introduced in ancient India, a part of ancient Greek people known as the Lydians were using circular metal pieces, the ancient Greek coins for trade which credits the Greeks with the discovery of money. Maps Research has shown that maps in the western literature were first produced in B. The first Greek scholar to invent a geographical map was Anaximander BC and the concept of longitude and latitude was introduced by a Greek geographer called Dikaiarch BC. Maps are one of the most ancient Greek inventions that are used today. Steam Engine Heron, also known as hero, an ancient Greek engineer who lived during the first century AD invented the steam engine. He made it as a toy and named it "aeolipile". The steam was generated in a pot filled with water which was covered and placed on fire; the pot was connected with two tubes which collected the steam and allowed it to collect into a ball of metal. The metallic ball had two outlets from where the steam was released. As the steam passed through these tubes the metal ball rotated. Mathematics "The square of the hypotenuse of a right-angled triangle is equal to the sum of the squares of the other two sides"; this is the world-famous Pythagoras theorem proposed by the Greek philosopher and mathematician Pythagoras BC. This theorem was a major benchmark in the fields of mathematics, geometry and astronomy. The first book ever written on geometry was written by a Greek mathematician Euclid in B. This oath prohibited doctors from performing abortions and unnecessary surgeries and stops them from having any sexual relations with their patients. According to the oath any private information divulged to the doctors should be secretive. Medicine George Papanicolaou , a Greek American doctor first detected cervical cancer in by a gynecological procedure known as the Pap Smear test which was named after him. Theater and Music The ancient Greeks developed theater to portray qualities such as patriotism, respect to their holy Gods, equality and hospitality; thus instilling these values in their children. This became a ritual in 6 B. Thespsis a performer while performing with the group broke away and started performing solo thus giving birth to solo performances. Ancient Greeks were ardent followers of art. Ancient Greeks had a special place for music in their lives. They invented musical instruments such as Pan Pipes which laid the foundations of the invention of the modern flute. It consists of a tube looped around a rod, set at an angle with the bottom end in water. It had a handle at the top. When the handle is rotated, the entire device turns up and water is collected in the tube, which is transported upwards. Archimedes also invented levers in around B. Many of our basic instruments like tongs, nutcracker and scissors are based on his principles. Astronomy The Greeks also made valuable contributions to the field of astronomy. They developed astrolabe, an instrument used to decide the position of

the sun and the stars in the sky. It was first used in BC by astronomers in Greece. **Umbrella** The Greeks used wood or big bones of animals to protect themselves from the sun or rain. Later they started using big leaves; thus laying the basis of inventing an umbrella. Finally in Samuel Fox an English inventor invented steel umbrella which we use today. **Alarm Clock** Yes, it was the ancient Greeks that came up with the idea of an alarm clock. The traditional alarm clock was made with a dial and a pointer for the time and it had an alarm system that would drop pebbles into a gong at a pre-set time. **Ships** The Greeks have also made a huge contribution to the shipping industry. The first anchor was invented by Eupalamas and it was made of wood. Anacharsis invented the first metal anchor. **Weapons** The ancient Greek civilization was considered as one of the most dominant civilizations of its time. **Dionysus the Elder of Syracuse B.** The catapult was a weapon that was used to fire arrows or big stones at the enemy. It is one of the ancient Greek weapons which laid the foundations of many of the modern weapons used today. I hope this article gives you an insight into the Greek inventions and their inventors and expands your knowledge base, just like I did mine, by writing it.

9: Ancient Greece - Kids Discover

Ancient Greek scientists have many inventions and discoveries attributed to them, rightly or wrongly, especially in the areas of astronomy, geography, and mathematics. What We Owe to the Ancient Greeks in the Field of Science.

Greek philosophers began to look at the world in different ways. They came up with theories on how the world worked and thought that the natural world obeyed certain laws that could be observed and learned through study.

Mathematics The Greeks were fascinated with numbers and how they applied to the real world. Unlike most earlier civilizations, they studied mathematics for its own sake and developed complex mathematical theories and proofs. One of the first Greek mathematicians was Thales. Another Greek named Pythagoras also studied geometry. He discovered the Pythagorean Theorem which is still used today to find the sides of a right triangle. Perhaps the most important Greek mathematician was Euclid. Euclid wrote several books on the subject of geometry called Elements. These books became the standard textbook on the subject for years.

Astronomy The Greeks applied their skills in math to help describe the stars and the planets. They theorized that the Earth may orbit the Sun and came up with a fairly accurate estimate for the circumference of the Earth. They even developed a device for calculating the movements of the planets which is sometimes considered the first computer.

Medicine The Greeks were one of the first civilizations to study medicine as a scientific way to cure illnesses and disease. They had doctors who studied sick people, observed their symptoms, and then came up with some practical treatments. The most famous Greek doctor was Hippocrates. Hippocrates taught that diseases had natural causes and they could sometimes be cured by natural means. The Hippocratic Oath to uphold medical ethics is still taken by many medical students today.

Biology The Greeks loved to study the world around them and this included living organisms. Aristotle studied animals in great detail and wrote down his observations in a book called the History of Animals. He heavily influenced zoologists for years by classifying animals according to their different characteristics.

Inventions While the Greeks loved to observe and study the world, they also applied their learning to make some practical inventions. Here are some of the inventions that are typically attributed to the Ancient Greeks.

- Watermill** - A mill for grinding grain that is powered by water. The Greeks invented the waterwheel used to power the mill and the toothed gears used to transfer the power to the mill.
- Alarm Clock** - The Greek philosopher Plato may have invented the first alarm clock in history. He used a water clock to trigger a sound like an organ at a certain time.
- Central Heating** - The Greeks invented a type of central heating where they would transfer hot air from fires to empty spaces under the floors of temples.
- Crane** - The Greeks invented the crane to help lift heavy items such as blocks for constructing buildings.

Interesting Facts About the Science and Technology of Ancient Greece The word "mathematics" comes from the Greek word "mathema" which means "subject of instruction. Hippocrates is often called the "Father of Western Medicine. The Greeks also made contributions to the study of map making or "cartography. Listen to a recorded reading of this page: Your browser does not support the audio element. For more about Ancient Greece:

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