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4.6 stars on Google & Trustpilot (+1000 reviews) 79528 documents were sold in the last 30 days Founded in 2010, the go-to place to buy study notes for 15 years now The rock components of the crust are slowly but constantly being changed from one form to another and the processes involved are summarized in the rock cycle (Figure 3.1.1). The rock cycle is driven by two forces: (1) Earth's internal heat engine, which moves material around in the core and the mantle and leads to slow but significant changes within the crust, and (2) the hydrological cycle, which is the movement of water, ice, and air at the surface, and is powered by the sun. The rock cycle is still active on Earth because our core is hot enough to keep the mantle moving, our atmosphere is relatively thick, and we have liquid water. On some other planets or their satellites, such as the Moon, the rock cycle is virtually dead because the core is no longer hot enough to drive mantle convection and there is no atmosphere or liquid water. Figure 3.3 A schematic view of the rock cycle. [Image description] In describing the rock cycle, we can start anywhere we like, although it's convenient to start with magma. As we'll see in more detail below, magma is rock that is hot to the point of being entirely molten, with a temperature of between about 800° and 1300°C, depending on the composition and the pressure. Figure 3.1.2 Magma forming pahoehoe basalt at Kilauea Volcano, Hawaii. Magma can either cool slowly within the crust (over centuries to millions of years)—forming intrusive igneous rock, or erupt onto the surface and cool quickly (within seconds to years)—forming extrusive igneous rock (volcanic rock) (Figure 3.1.2). Intrusive igneous rock typically crystallizes at depths of hundreds of metres to tens of kilometres below the surface. To change its position in the rock cycle, intrusive igneous rock has to be uplifted and then exposed by the erosion of the overlying rocks. Through the various plate-tectonics-related processes of mountain building, all types of rocks are uplifted and exposed at the surface. Once exposed, they are weathered, both physically (by mechanical breaking of the rocks and chemically (by wetting of the minerals), and the weathering products—mostly small rock and mineral fragments—are eroded, transported, and then deposited as sediments. Transportation and deposition occur through the action of rivers, streams, waves, wind, and other agents, and sediments are deposited in rivers, lakes, desert, and the ocean. Referring to the rock cycle (Figure 3.1.2), the steps that are necessary to complete the rock cycle are: 1. Deposition of sediments. 2. Lithification. 3. Burial. 4. Diagenesis. 5. Metamorphism. 6. Uplift. 7. Erosion. 8. Deposition. 9. Lithification. 10. Burial. 11. Diagenesis. 12. Metamorphism. 13. Uplift. 14. Erosion. 15. Deposition. 16. Lithification. 17. Burial. 18. Diagenesis. 19. Metamorphism. 20. Uplift. 21. Erosion. 22. Deposition. 23. Lithification. 24. Burial. 25. Diagenesis. 26. Metamorphism. 27. Uplift. 28. Erosion. 29. Deposition. 30. Lithification. 31. Burial. 32. Diagenesis. 33. Metamorphism. 34. Uplift. 35. Erosion. 36. Deposition. 37. Lithification. 38. Burial. 39. Diagenesis. 40. Metamorphism. 41. Uplift. 42. Erosion. 43. Deposition. 44. Lithification. 45. Burial. 46. Diagenesis. 47. Metamorphism. 48. Uplift. 49. Erosion. 50. Deposition. 51. Lithification. 52. Burial. 53. Diagenesis. 54. Metamorphism. 55. Uplift. 56. Erosion. 57. Deposition. 58. Lithification. 59. Burial. 60. Diagenesis. 61. Metamorphism. 62. Uplift. 63. Erosion. 64. Deposition. 65. Lithification. 66. Burial. 67. Diagenesis. 68. Metamorphism. 69. Uplift. 70. 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divide the World outside of Europe between themselves. 1494–1559: The Italian Wars lead to the downfall of the Italian city-states. 1495: Manuel I succeeds John II as the king of Portugal (reigns until 1521). 1497–1499: Vasco da Gama's first voyage from Europe to India and back. 1499: Ottoman fleet defeats Venetians at the Battle of Zonchio. 1499: University "Alcalá de Henares" in Madrid, Spain is built. 1499: Michelangelo's Pieta in St. Peter's Basilica is made in Rome 1500: Islam becomes the dominant religion across the Indonesian archipelago.[13] 1500: in an effort to increase his power, Bolikiah founded the city of Selurong—later named Maynila, on the other side of the Pasig River shortly after taking over Tondo from its monarch, Lakan Gambang.[14] 1500: Around late 15th century Bujangga Manik manuscript was composed, tell the story of Jaya Pakuan Bujangga Manik, a Sundanese Hindu hermit journeys throughout Java and Bali.[15] 1500: Charles of Ghent (future Lord of the Netherlands, King of Spain, Archduke of Austria, and Holy Roman Emperor) was born. 1500: Guru Nanak begins the spreading of Sikhism, the fifth-largest religion in the world. 1500: Spanish navigator Vicente Yáñez Pinzón encounters Brazil but is prevented from claiming it by the Treaty of Tordesillas. 1500: Portuguese navigator Pedro Alvares Cabral claims Brazil for Portugal. 1500: The Ottoman fleet of Kemal Reis defeats the Venetians at the Second Battle of Lepanto. The Yongle Emperor (1360–1424) raised the Ming Empire to its highest power. Launched campaigns against the Mongols and reestablished Chinese rule in Vietnam Ulugh Beg (1394–1449), Timurid sultan who oversaw the cultural peak of the Timurid Renaissance Johannes Gutenberg (1400–1468), German inventor who introduced printing to Europe with his mechanical movable-type printing press Skanderbeg (1405–1468), who led the Albanian resistance against the Ottoman Empire Ivan III of Russia (1440–1505), Grand Prince of Moscow who ended the dominance of the Tatars in the lands of the Rus King Henry VII (1457–1509), the founder of the royal house of Tudor See also: Science and inventions of Leonardo da VinciSee also: Timeline of historic inventions § 15th century Renaissance affects philosophy, science and art. Rise of Modern English language from Middle English. Introduction of the noon bell in the Catholic world. Public banks. Yongle Encyclopedia—over 22,000 volumes. Hangul alphabet in Korea. Scotch whisky. Psychiatric hospitals[clarification needed]. Development of the woodcut for printing between 1400–1450. Movable type first used by King Taejong of Joseon—1403. (Movable type, which allowed individual characters to be arranged to form words, was invented in China by Bi Sheng between 1041 and 1048.) Although pioneered earlier in Korea and by the Chinese official Wang Zhen (with tin), bronze metal movable type printing is created in China by Hua Sui in 1490. Johannes Gutenberg advances the printing press in Europe (c. 1455) Linear perspective drawing perfected by Filippo Brunelleschi 1410–1415 Invention of the harpsichord c. 1450 Arrival of Christopher Columbus to the Americas in 1492. ^ Crowley, Roger (2006). Constantinople: The Last Great Siege, 1453. Faber. ISBN 0-571-22185-8. (reviewed by Foster, Charles (22 September 2006). "The Conquestof Constantinople and the end of empire". Contemporary Review. Archived from the original on 22 August 2009. It is the end of the Middle Ages) ^ Encyclopædia Britannica, Renaissance, 2008, O.Ed. ^ McLuhan 1962; Eisenstein 1980; Febvre & Martin 1997; Man 2002 ^ Harvey 2005, p. 14. ^ Nanda, J. N (2005). Bengal: the unique state. Concept Publishing Company. p. 10. ISBN 978-81-8069-149-2. Bengal [...] was rich in the production and export of grain, salt, fruit, liquors and wines, precious metals and ornaments besides the output of its handlooms in silk and cotton. Europe referred to Bengal as the richest country to trade with. ^ Winstedt, R. O. (1948). "The Malay Founder of Medieval Malacca". Bulletin of the School of Oriental and African Studies, University of London. 12 (3/4). Cambridge University Press on behalf of School of Oriental and African Studies: 726–729. doi:10.1017/S0041977X00083312. JSTOR 608731. ^ "An introduction to the Ming dynasty (1368–1644)". Khan Academy. Asian Art Museum. 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View (previous 50 | next 50) (20 | 50 | 100 | 250 | 500)Caribbean Sea (links | edit) List of decades, centuries, and millennia (links | edit) Levant (links | edit) Romania (links | edit) House of Romanov (links | edit) Sarajevo (links | edit) Snare drum (links | edit) Suffolk (links | edit) Shooting sports (links | edit) Sikhs (links | edit) Treaty of Verdun (links | edit) 20th century (links | edit) 16th century (links | edit) 17th century (links | edit) 18th century (links | edit) 1492 (links | edit) 14th century (links | edit) 1st century (links | edit) 13th century (links | edit) 4th century (links | edit) 12th century (links | edit) 11th century (links | edit) 1564 (links | edit) 1572 (links | edit) 1490s (links | edit) 1597 (links | edit) 7th century (links | edit) 10th century (links | edit) 9th century (links | edit) 8th century (links | edit) 6th century (links | edit) 5th century (links | edit) 3rd century (links | edit) 2nd century (links | edit) 1573 (links | edit) 1570s (links | edit) 1574 (links | edit) 1436 (links | edit) 1476 (links | edit) 1542 (links | edit) 1540s (links | edit) 4th century BC (links | edit) 1st century BC (links | edit) 2nd century BC (links | edit) 3rd century BC (links | edit) 5th century BC (links | edit) 6th century BC (links | edit) 1430s (links | edit) 21st century BC (links | edit) 11th century BC (links | edit) View (previous 50 | next 50) (20 | 50 | 100 | 250 | 500) Retrieved from " WhatLinksHere/15th century" Sign in to edit What are the three types of rocks that are part of the rock cycle?A) Hard, soft, brittleB) Sand, stone, and volcanicC) Dactylic, iambic, and spondaicD) Igneous, metamorphic, and sedimentaryCorrect Answer: D) Igneous, metamorphic, and sedimentary What do you need in order for igneous rock to form?A) A volcanoB) A mountainC) A glacierD) A canyonCorrect Answer: A) A volcano What do granite and basalt have in common?A) They're sedimentary rocksB) They're metamorphic rocksC) They're igneous rocksD) They're formed by erosionCorrect Answer: C) They're igneous rocks What is the difference between magma and lava?A) Magma is very hot, lava is cool.B) Magma is molten rock within the earth; lava is molten rock on the earth's surface.C) Magma is molten rock on the earth's surface; lava is molten rock within the earth.D) Magma is cool, lava is very hotCorrect Answer: B) Magma is molten rock within the earth; lava is molten rock on the earth's surface. Which of these is a sedimentary rock?A) GraniteB) ObsidianC) SandstoneD) QuartziteCorrect Answer: C) Sandstone What can you infer about metamorphic rocks from their name?A) They form deep within the earthB) They form on the earth's surfaceC) They form under heat and pressureD) They have changed in some wayCorrect Answer: D) They have changed in some way Where might you find mountains of metamorphic rock?A) Near volcanoesB) At the boundaries between tectonic platesC) Buried under bodies of waterD) Near any landscape that has been erodedCorrect Answer: B) At the boundaries between tectonic plates What has to happen to sediment in order for it to become sedimentary rock?A) It has to bond and harden.B) It has to be buried deep within the earth.C) It has to be around a volcanic eruption.D) It has to be washed away by wind and rainCorrect Answer: A) It has to bond and harden. Sedimentary rock is most similar to which of the following?A) Ice creamB) PuddingC) Layered cakeD) A smoothieCorrect Answer: C) Layered cake When does a sedimentary rock become a metamorphic rock?A) When it's left alone over a long period of timeB) When it erupts out of a volcanoC) When its sediments bond togetherD) When it's subjected to intense heat and pressureCorrect Answer: D) When it's subjected to intense heat and pressure