

## 3.2 Textile timeline

<b>5000 BCE</b>	Cultivation of flax, Nile Valley, Mesopotamia	<b>1743</b>	Three-colour printing machine, Keen & Platt, England
	Cultivation of ramie (nettle family), Egypt and China	<b>1750–60</b>	Dropbox loom, Robert Kay, England
<b>4500 BCE</b>	Vertical loom, spindle and woven fabrics, Egypt	<b>1764</b>	Spinning Jenny, James Hargreaves, England
	Cultivation of hemp, South-East Asia	<b>1769</b>	Water frame and water-powered loom, Sir Richard Arkwright, England
<b>3000 BCE</b>	Cultivation of cotton, Indus region, India		Silk point net, Robert Frost, England
<b>2640 BCE</b>	Development of sericulture and spinning, China	<b>1770s</b>	Perpetual carding introduced, based on idea of Lewis Paul, England
<b>2500 BCE</b>	Dyed fabrics, India	<b>1775</b>	First warp knitting machine, England
<b>2000 BCE</b>	Cultivation of wool, Mesopotamia	<b>1779</b>	Spinning Mule, based on Spinning Jenny and water frame to make fine muslins, Samuel Crompton, England
<b>450 BCE</b>	Brocade invented, China	<b>1783</b>	Roller printing, Thomas Bell, Scotland
<b>436 BCE</b>	Asbestos, used as lamp wicks, Greece	<b>1784</b>	Ropemaking machine, Richard March, England
<b>1 BCE</b>	Drawloom, warp yarns, hence variety of patterns, Egypt	<b>1785</b>	Chlorine used as bleach, Claude-Louis Berthollet, France
<b>1 CE</b>	Satin invented, China		Turkey red dye, Charles Taylor, England
<b>300</b>	Dacca muslin, India		First power loom, machine comb, Edmund Cartwright, England
<b>500–600</b>	Batik introduced to Java, Indonesia, from India or Sri Lanka	<b>1787</b>	Patented mill or machine for spinning yarn from hemp, tow, flax or wool, John Kendrew and Thomas Porthouse, England
<b>1197</b>	The Law of Cloth fixed a standard for manufacture, size and quality of woollen fabric in Britain	<b>1789</b>	Liquid chlorine bleach (Javelle water), France
<b>1490</b>	Spinning wheel, Leonardo da Vinci, Italy	<b>1790s</b>	Spinning Mule now using 400 spindles
<b>1530</b>	Continuous spinning wheel, Johann Jürgen, Germany	<b>1792</b>	Cotton Gin, Eli Whitney, USA, start of US prosperity
<b>1535</b>	Denier system for silk introduced, France	<b>1799</b>	New bleaching powder, MacIntosh & Tennant, Scotland
<b>1545</b>	Steel needles being used	<b>1801</b>	Merino flock, John Macarthur, Australia
<b>1575</b>	Pile weaving introduced, India	<b>1806</b>	Jacquard loom, Joseph Marie, France
<b>1589</b>	Stocking frame, William Lee, England	<b>1808</b>	Bobbin net machine, John Heathcote, England
<b>1670</b>	First commercial stocking frame, England	<b>1813</b>	Levers loom for machine lace, John Levers, England
<b>1681</b>	Ready-made clothing concept, England	<b>1820</b>	Patent rubber elastic, Thomas Hancock, England
<b>1700s</b>	Bleached linen fabrics with horse chestnut extract used		
<b>1733</b>	Flying shuttle, John Kay, England		
<b>1742</b>	First cotton mill, Birmingham, England		

<b>1821</b>	Dress silk machine, Bauwens & Didelot, France	<b>1890</b>	Mercerising process, Horace Lowe, England
<b>1823</b>	Waterproof fabrics, Charles Macintosh, Scotland	<b>1892</b>	Viscose discovered by Cross, Bevan & Beadle, England
<b>1825</b>	Wet spinning of linen, Thomas Kay, England	<b>1893</b>	Zipper, Whitcomb Judson, USA
<b>1828</b>	Blackburn loom, William Dickinson, England	<b>1900</b>	Chlorination of wool, shrink and felt proof introduced
<b>1830</b>	Chain stitch machine, Bartholemy Thimonier, France	<b>1904</b>	Viscose production, artificial fibres, Courtauld, England
	Brass hooks and eyes replaced copper, England	<b>1905</b>	Textile mills switch to electric power, England
<b>1833</b>	Trade union formed by Robert Owen, Scotland	<b>1913</b>	Zipper used by US army
<b>1834</b>	Lockstitch machine, Walter Hunt, USA	<b>1921</b>	Acetate, British Celanese Ltd
<b>1837</b>	First elastic-sided boot, Joseph Sparkes Hall, England	<b>1924</b>	'Rayon' was adopted as the name for viscose in the USA
<b>1838</b>	Flax hackling machine, J Wordsworth, England	<b>1928</b>	Crease-proof cotton developed by Broadhurst, Lee & Co, England
<b>1840</b>	Snap fasteners used on theatrical costumes for quick access, Europe		Dry-cleaning with white spirit, William Joseph Stoddard, USA
<b>1846</b>	Cotton comb, Josue Heilmann, England	<b>1930</b>	Hydrogen peroxide used as bleach
	Lockstitch machine patented by Elias Howe, USA		Neoprene, a synthetic rubber fabric, DuPont, USA
<b>1849</b>	Safety pin, Walter Hunt, USA	<b>1931</b>	Glass fibres used in textiles
<b>1853</b>	Noble comb for wool, James Noble and George Edmund Donisthorpe, England	<b>1934</b>	Polyvynl chloride (PVC), Shia Viscosa, Italy
<b>1854</b>	First textile mill in Bombay, India	<b>1935</b>	Casein fabric, a milk-based fibre with properties similar to wool, patented in Italy
<b>1855</b>	Artificial silk, Georges Audemars, Switzerland	<b>1938</b>	Nylon, DuPont, USA
<b>1856</b>	Synthetic aniline purple dye, William Perkin, England	<b>1940</b>	First nylon stockings
<b>1859</b>	Opening of Suez Canal	<b>1941</b>	Polyester fibres, Dickson & Whinfield, England
<b>1859-63</b>	Flat bedknitting machine, Raschel, Germany	<b>1946</b>	Lurex, Dow Chemical Co, USA
<b>1864</b>	Fully fashioned knitting machine, William Cotton, England	<b>1948</b>	Velcro, George de Mestral, Switzerland
	Introduction of circular knitting	<b>1951</b>	Modacrylic fibres, Union Carbide Chemical Co, USA
<b>1867</b>	Diamonds discovered in South Africa	<b>1953</b>	Polyester fibres, DuPont, USA
<b>1870s</b>	Chemical lace or guipure machine lace invented		Commercialisation of polyester fibres introduces the concepts of 'drip dry' and 'non-iron'
<b>1873</b>	Denim jeans with reinforced copper rivets, Jacob W Davis, USA	<b>1954</b>	Washable non-iron wool fabrics, Dr AJ Farnworth, Australia
<b>1880</b>	Metric numbering system introduced for wool, France		Triacetate fibres, Celanese, England
<b>1889</b>	Chardonnet silk, Count Chardonnet, France	<b>1956</b>	Polynosic rayon, Tachikawa, Japan
			Lycra, first elastic fibre not based on rubber, DuPont, USA

<b>1959</b>	First commercial production of Spandex fibre, DuPont, USA	<b>2000s</b>	Seacell, related to Lyocell, based on a small percentage of seaweed. Said to protect the skin and help absorb nutrients, Nanonic Inc, USA
<b>1967</b>	Carbon fibres developed		Lamous, microfibres used to produce a strong suede-like, environmentally friendly fabric, Asahi Kasei, Japan
<b>1969</b>	Gore-Tex, a waterproof, breathable fabric created by stretching rods of polytetrafluoroethylene (PTFE), Wilbert and Robert Gore, USA	<b>2003</b>	Bamboo textiles using certified organic bamboo, Hebei Jigao Chemical Fibre Co, China
<b>1972</b>	Lyocell, a type of rayon made from bleached wood pulp, Enka, USA	<b>2009</b>	Fashion designer Iris van Herpen makes her first laser-cut dress
<b>1981</b>	Chitin fibre, made from crab shells obtained from food manufacturers, Unitaka Ltd, Japan	<b>2010</b>	Nano-surfaced fibre, soil repellent, Hohenstein Institute and ITCF Denkendorf, Germany
<b>1986</b>	Coolmax, the original moisture-management fabric, DuPont, USA	<b>2017</b>	Reversible fabric that can either warm or cool wearers, Stanford University, USA
<b>1990</b>	Tencel, made from fibres extracted from woodchips, Courthaulds Fibres, USA		
<b>2000</b>	Sorona, a fabric containing 20–37% cornstarch, DuPont, USA		