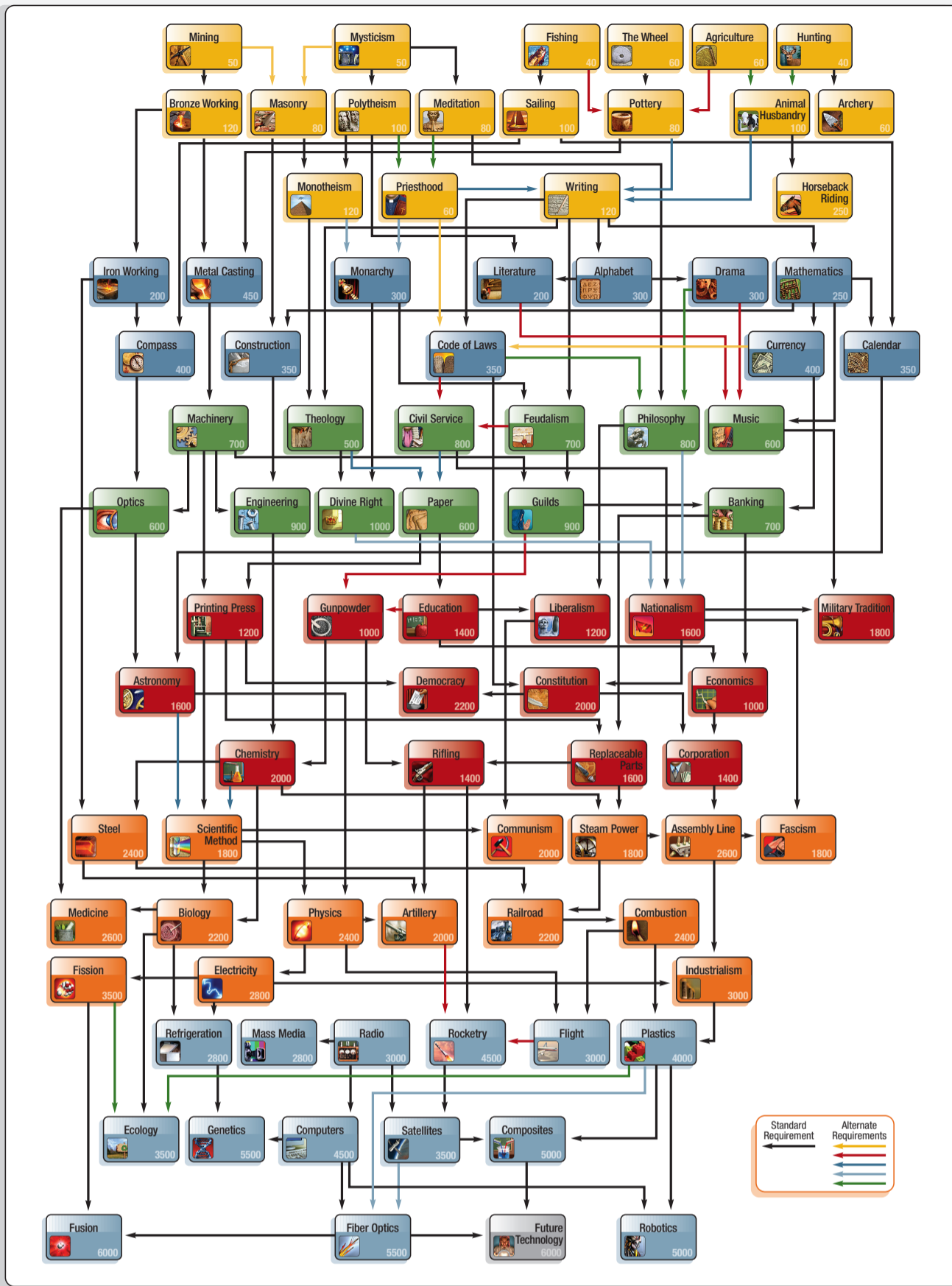


# SID MEIER'S CIVILIZATION IV

## TECH TREE & SPECIFICATIONS CHARTS



Terrain	Food	Production	Commerce	Defensive Bonus	Movement Cost	Comments
<b>Base Terrain</b>						
Coast	1	0	2	10%	1	
Desert	0	0	0	0%	1	
Grassland	2	0	0	0%	1	
Snow	0	0	0	0%	1	
Ocean	1	0	1	0%	1	
Peak	0	0	0	0%	Impassable	
Plains	1	1	0	0%	1	
Tundra	1	0	0	0%	1	
<b>Terrain Features</b>						
Fallout	-3	-3	-3	0%	2	-0.5 health
Floodplains	+3	0	0	0%	1	-0.4 health
Forest	0	+1	0	50%	2	+0.4 health
Hills	-1	+1	0	25%	2	
Ice	0	0	0	0%	Impassable	
Jungle	-1	0	0	50%	2	-0.25 health
Oasis	+3	0	+2	0%	2	Fresh water source

Icon Name	Meaning
Bread icon	Food
Bread loaf	5 Food
Hammer icon	Production
Anvil icon	5 production
Gold coin	Gold
Money bag	5 gold
Beaker icon	Research
Culture note	Culture
Arm flexing	Combat strength
Foot symbol	Movement points
Castle	Defensive bonus
Gold Star	Capital
Silver Star	Government Center
Sun Disc	Golden Age
Happy Face	Happiness
Unhappy Face	Unhappiness
Red Cross icon	Health
Mr. Yuck Face	Unhealthiness
Red Fist	Resistance
Great Person face	Great person points

Icon Name	Meaning
Trade icon (3 arrows)	Trade
Treaty with arrows	Open Borders
Treaty with peace symbol	Defensive Pact
Lightning Bolt	Power
Praying Hands	Religion
Buddhism symbol	Buddhism
Buddhism with star	Buddhist holy city
Christianity symbol	Christianity
Christianity with star	Christian holy city
Confucianism symbol	Confucianism
Confucianism with star	Confucian holy city
Hinduism symbol	Hinduism
Hinduism with star	Hindu holy city
Islam symbol	Islam
Islam with star	Islamic holy city
Judaism symbol	Judaism
Judaism with star	Jewish holy city
Taoism symbol	Taoism
Taoism with star	Taoist holy city

Name	Cost	Allows	Text Row 1	Text Row 2
Agriculture	60	Farm		
Alphabet	300	Beaker Symbol	Enables technology trading	Can build Research
Animal Husbandry	100	Pasture		
Archery	60	Archer		
Artillery	2000	Artillery		
Assembly Line	2600	Infantry, Factory, Coal Plant, Pentagon		
Astronomy	1600	Galleon, Observatory, Obsoletes Colossus	Centers World Map	Enables trade on Ocean
Banking	700	Bank	Enables Mercantilism	
Biology	2200		Can build Farms without Irrigation	Farm: +1 Food
Bronze Working	120	Axeman, Copper	Can chop down a Forest	Enables Slavery
Calendar	350	Obsoletes Obelisk, Obsoletes Stonehenge, Plantation		
Chemistry	2000	Grenadier, Frigate, Obsoletes Parthenon	Workshop: +1 Hammer	
Civil Service	800	Maceman	Farms spread Irrigation	Enables Bureaucracy
Code of Laws	350	Courthouse, Chichen Itza, Confucianism	Enables Caste System	
Combustion	2400	Transport, Destroyer, Obsoletes Whale, Well		
Communism	2000	Spy, Scotland Yard, Kremlin	Enables State Property	Enables Permanent Alliances
Compass	400	Explorer, Harbor		
Composites	5000	Modern Armor, Jet Fighter, Stealth Bomber		
Computers	4500	Laboratory, Obsoletes Angkor Wat, Obsoletes The Spiral Minaret		
Constitution	2000	Jail	Enables Representation	
Construction	350	War Elephant, Catapult, Colosseum	Enables Bridge Building	
Corporation	1400	Wall Street, Obsoletes The Great Lighthouse	+1 Trade Routes per city	
Currency	400	Market, Gold Symbol	+1 Trade Routes per city	Enables Gold Trading via Diplomacy, Can build Wealth
Democracy	2200	Statue of Liberty	Enables Universal Suffrage	Enables Emancipation
Divine Right	1000	Versailles, Spiral Minaret, Islam		
Drama	300	Theatre, Globe Theatre	Can Adjust Culture Rate	
Ecology	3500	Recycling Center, SS Life Support	Can Scrub Fallout	Enables Environmentalism

Name	Cost	Allows	Text Row 1	Text Row 2
Economics	1000		First to discover receives a Great Merchant	Enables Free Market
Education	1400	University, Oxford University		
Electricity	2800	Bunker, Bomb Shelters, Broadway	Windmill: +1 Gold	Watermill: +2 Gold
Engineering	900	Pikeman, Castle, Hagia Sophia	+1 Road Movement	
Fascism	1800	Mount Rushmore	Enables Police State	Enables Permanent Alliances
Feudalism	700	Longbowman	Enables Vassalage	Enables Serfdom
Fiber Optics	5500	The Internet, SS Cockpit, Obsoletes The Kremlin		
Fishing	40	Work Boat	Can Work Water Tiles	
Fission	3500	Nuclear Plant, The Manhattan Project		
Flight	3000	Carrier, Fighter, Airport		
Fusion	6000	SS Engine	First to discover receives a Great Engineer	
Future Tech	6000		+1 Health in All Cities	+1 Happy Face in All Cities
Genetics	5500	SS Stasis Chamber	+3 Health in All Cities	
Guilds	900	Knight, Grocer	Workshop: +1 Hammer	
Gunpowder	1000	Musketeer		
Horseback Riding	250	Horse Archer		
Hunting	40	Scout, Spearman, Camp		
Industrialism	3000	Marine, Tank, Battleship, Obsoletes Ivory, Aluminum		
Iron Working	200	Swordsman, Iron	Can Remove Jungle	
Liberalism	1200		First to discover receives a Free Technology	Enables Free Speech, Free Religion
Literature	200	Heroic Epic, National Epic, Great Library		
Machinery	700	Crossbowman, Windmill, Watermill		
Masonry	80	Walls, The Pyramids, The Great Lighthouse, Quarry		
Mass Media	2800	Broadcast Tower, Hollywood, The United Nations		
Mathematics	250	Aqueduct, Hanging Gardens, Fort		
Medicine	2600	Hospital, Red Cross		
Meditation	80	Monastery, Buddhism		
Metal Casting	450	Forge, The Colossus, Workshop		
Military Tradition	1800	Cavalry, West Point	Enables Defensive Pacts	

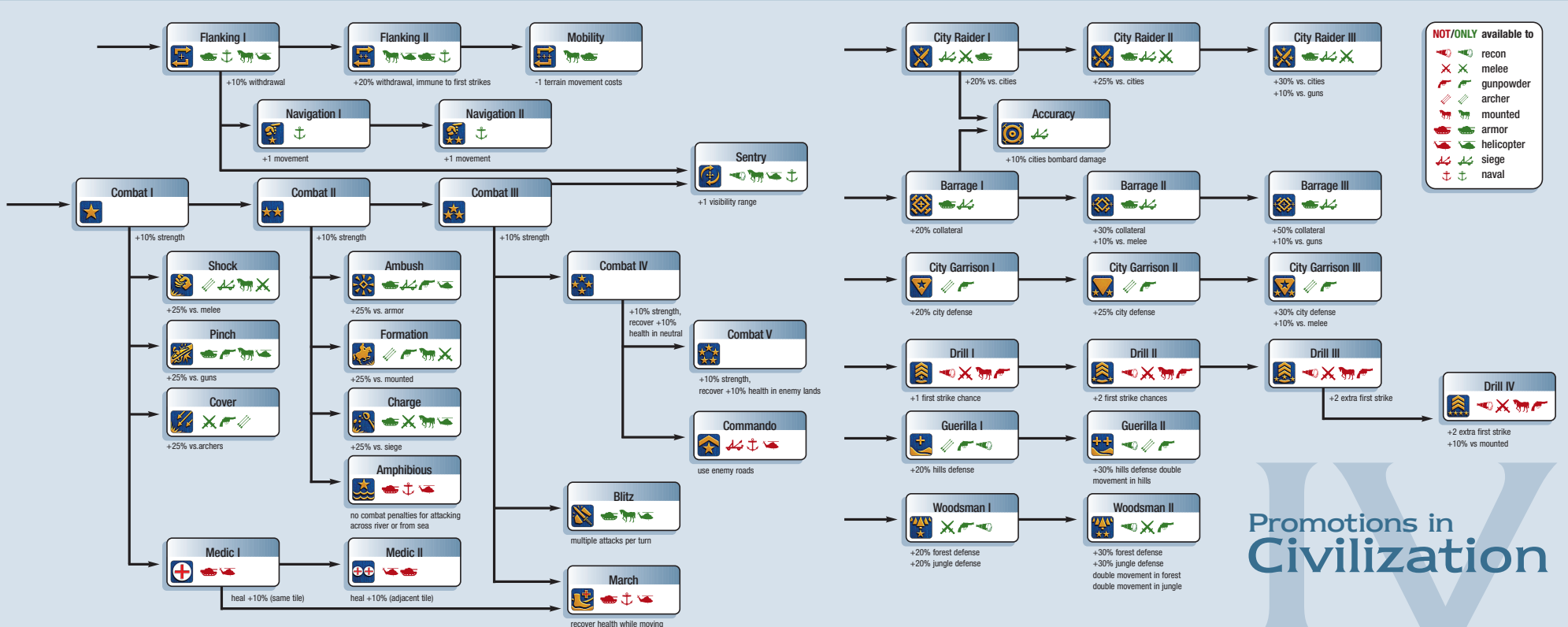
Name	Cost	Allows	Text Row 1	Text Row 2
Monarchy	300	Winery	Enables Hereditary Rule	
Monotheism	120	Judaism	Enables Organized Religion	
Music	600	Cathedral, Notre Dame, Culture Symbol	First to discover receives a Great Artist	Can build Culture
Mysticism	50	Obelisk, Stonehenge		
Nationalism	1600	Hermitage, The Taj Mahal	Enables Nationhood	
Optics	600	Caravel, Whaling Boats	+1 Sight across Water	
Paper	600		Enables Map Trading	
Philosophy	800	Angkor Wat, Taoism	Enables Pacifism	
Physics	2400	Uranium	First to discover receives a Great Scientist	
Plastics	4000	Hydro Plant, The Three Gorges Dam, Offshore Platform, Obsoletes Fur		
Polytheism	100	Parthenon, Hinduism		
Pottery	80	Granary, Cottage		
Priesthood	60	Oracle, Temple		
Printing Press	1200		Village: +1 Gold	Town: +1 Gold
Radio	3000	Submarine, Bomber, Eiffel Tower, Rock N Roll		
Railroad	2200	Machine Gun, Railroad		
Refrigeration	2800	Supermarket	+1 Extra Moves for Water Units	
Replaceable Parts	1600	Lumbermill	Windmill: +1 Hammer	Watermill: +1 Hammer
Rifling	1400	Rifleman, Obsoletes Chichen Itza		
Robotics	5000	Mechanized Infantry, The Space Elevator, SS Docking Bay		
Rocketry	4500	SAM Infantry, Gunship, ICBM, Apollo Program, SS Casing		
Sailing	100	Galley, Lighthouse	Enables Trade on Coast	
Satellites	3500	SDI, SS Thrusters	Reveals World Map	
Scientific Method	1800	Obsoletes Monastery, Obsoletes The Great Lighthouse, Oil		
Steam Power	1800	Obsoletes Hagia Sophia, Coal	Workers build improvements +50% faster	
Steel	2400	Cannon, Ironclad, Drydock, Ironworks		
The Wheel	60	Chariot, Road		
Theology	500	The Sistine Chapel, Christianity	Enables Theocracy	
Writing	120	Library	Enables Open Borders	

Civic Name	Upkeep Cost	Required Technology	Effect One	Effect Two
<b>Government</b>				
Despotism	Low	None	None	None
Hereditary Rule	Medium	Monarchy	+1 happy per military unit stationed in city	None
Representation	Low	Constitution	+3 beakers per specialist	+3 happy in 5 largest cities
Police State	High	Fascism	+25% military unit production	-50% war weariness
Universal Suffrage	Medium	Democracy	+1 hammer from town	Can spend gold to finish production in a city
<b>Legal</b>				
Barbarism	Low	None	None	None
Vassalage	High	Feudalism	New units receive +2 experience points	Lower unit support costs
Bureaucracy	Medium	Civil Service	+50% hammers, +50% gold in capital	None
Nationhood	Low	Nationalism	Can draft 3 units per turn	+2 happy per Barracks
Free Speech	None	Liberalism	+2 gold from town	+100% culture in all cities
<b>Labor</b>				
Tribalism	Low	None	None	None
Slavery	Low	Bronze Working	Can sacrifice population to finish production in a city	None
Serfdom	Low	Feudalism	Workers build improvements +50% faster	None
Caste System	Medium	Code of Laws	Unlimited Artists, Scientist, Merchant	None

Civic Name	Upkeep Cost	Required Technology	Effect One	Effect Two
<b>Labor</b>				
Emancipation	None	Democracy	+100% growth for cottage, hamlet, village	Unhappiness penalty for civs without Emancipation
<b>Economy</b>				
Decentralization	Low	None	None	None
Mercantilism	Medium	Banking	+1 free specialist per city	No foreign trade routes
Free Market	Low	Economics	+1 trade routes per city	None
State Property	None	Communism	No maintenance costs from distance to palace	+1 food from workshop, watermill
Environmentalism	High	Ecology	+5 health in all cities	+1 happy from jungle, forest
<b>Religion</b>				
Paganism	Low	None	None	None
Organized Religion	High	Monotheism	Can build missionaries without monastery	Cities with state religion construct buildings +25% faster
Theocracy	Medium	Theology	+2 experience points in cities with state religion	No non-state religion spread
Pacifism	None	Philosophy	+100% great person birth rate in cities with state religion	+1 gold support cost per military unit
Free Religion	Low	Liberalism	No state religion, +1 happy per religion in a city	+10% research in all cities

Improvements/Resources	Requires	Food	Production	Commerce	Comments
Camp	Hunting	+0	+0	+0	
Deer		+1, +2 with Camp	0	0	+1 health
Fur		0	0	+1, +3 with Camp	+1 happy
Ivory		0	+1, +1 with Camp	+1 with Camp	+1 happy
Cottage	Pottery	0	0	+1g	Becomes a Hamlet in 10 turns
Hamlet	Pottery	0	0	+2g	Becomes a Village in 20 turns
Village	Pottery	0	0	+3, +1 with Printing Press	Becomes a Town in 40 turns
Town	Pottery	0	+1 with Universal Suffrage	+4, +1 with Printing Press, +2 with Free Speech	
Farm	Agriculture	+1, +1 with Biology	0	0	Carries irrigation (with Civil Service)
Corn		+1, +2 with Farm	0	0	+1 health
Rice		+1, +1 with Farm	0	0	+1 health
Wheat		+1, +2 with Farm	0	0	+1 health
Fishing Boats	Fishing	0	0	0	
Clam		+1, +2 with Fishing Boats	0	0	+1 health
Crab		+1, +2 with Fishing Boats	0	0	+1 health
Fish		+1, +3 with Fishing Boats	0	0	+1 health
Fort	Mathematics	0	0	0	+25% defense
Hit Movies	Hollywood	0	0	0	+1 happy
Hit Musicals	Broadway	0	0	0	+1 happy
Hit Singles	Rock N Roll	0	0	0	+1 happy
Lumbermill	Replaceable Parts	0	+1	+1 next to river	
Mine	Mining	0	+2	0	Small chance to discover metals
Aluminum	Industrialism	0	+1, +3 with Mine	+1 with Mine	
Coal	Steam Power	0	+1, +3 with Mine	0	
Copper	Bronze Working	0	+1, +3 with Mine	0	
Iron	Iron Working	0	+1, +3 with Mine	0	
Uranium	Physics	0	0	+3 with Mine	
Gems		0	+1 with Mine	+1, +5 with Mine	+1 happy

Improvements/Resources	Requires	Food	Production	Commerce	Comments
Gold		0	+1 with mine	+1, +6 with mine	+1 happy
Silver		0	+1 with mine	+1, +4 with mine	+1 happy
Offshore Platform	Plastics	0	0	0	
Oil	Scientific Method	0	+1, +2 with offshore platform	+1 with offshore platform	
Pasture	Animal Husbandry	0	0	0	
Horse		0	+1, +2 with pasture	+1 with pasture	
Cow		+1, +1 with pasture	+2 with pasture	0	+1 health
Pig		+1, +3 with pasture	0	0	+1 health
Sheep		+1, +2 with pasture	0	+1 with pasture	+1 health
Plantation	Calendar	0	0	0	
Banana		+1, +2 with plantation	0	0	+1 health
Dye		0	0	+1, +4 with plantation	+1 happy
Incense		0	0	+1, +5 with plantation	+1 happy
Silk		0	0	+1, +3 with plantation	+1 happy
Spices		+1 with plantation	0	+1, +2 with plantation	+1 happy
Sugar		+1, +1 with plantation	0	+1 with plantation	+1 happy
Quarry	Masonry	0	0	0	
Marble		0	+1, +1 with quarry	+2 with quarry	
Stone		0	+1, +2 with quarry	0	
Watermill	Machinery	+1 with State Property	+1, +1 with Replaceable Parts	+2 with Electricity	
Well	Combustion	0	0	0	
Oil	Scientific Method	0	+1, +2 with well	+1 with well	
Whaling Boats	Optics	0	0	0	
Whale	+1	+1 with whaling boats	+2 with whaling boats	+1 happy	
Windmill	Machinery	+1	+1 with Replaceable Parts	+1, +1 with Electricity	
Winery	Monarchy	0	0	0	
Wines		+1 with winery	0	+1, +2 with winery	+1 happy
Workshop	Metal Casting	-1, +1 food with State Property	+1, +1 with Guilds, +1 with Replaceable Parts	0	



Promotion Name	Required Promotions	Available to	Effect
Accuracy	City Raider I or Barrage I	Siege	+10% city bombard damage
Ambush	Combat II	Siege, Gunpowder, Armored, Helicopter	+25% vs. armored units
Amphibious	Combat II	Recon, Mounted, Archery, Melee, Siege, Gunpowder	No combat penalty for attacking from sea or across river
Barrage I	None	Siege, Armored	+20% collateral damage
Barrage II	Barrage I	Siege, Armored	+30% collateral damage, +10% vs. melees units
Barrage III	Barrage II	Siege, Armored	+50% collateral damage, +10% vs. gunpowder units
Blitz	Combat III	Mounted, Armored, Helicopter	Can attack multiple times per turn
Charge	Combat II	Mounted, Melee, Armored, Helicopter	+25% vs. siege weapons
City Garrison I	None	Archery, Gunpowder	+20% city defense
City Garrison II	City Garrison I	Archery, Gunpowder	+25% city defense
City Garrison III	City Garrison II	Archery, Gunpowder	+30% city defense, +10% vs. melees units
City Raider I	None	Melee, Siege, Armored	+20% city attack
City Raider II	City Raider I	Melee, Siege, Armored	+25% city attack
City Raider III	City Raider II	Melee, Siege, Armored	+30% city attack, +10% vs. gunpowder units
Combat I	None	All	+10% strength

Promotion Name	Required Promotions	Available to	Effect
Combat II	Combat I	All	+10% strength
Combat III	Combat II	All	+10% strength
Combat IV	Combat III	All	+10% strength, heals extra 10% damage per turn in neutral lands
Combat V	Combat IV	All	+10% strength, heals extra 10% damage per turn in enemy lands
Commando	Combat IV	Recon, Archery, Mounted, Melee, Gunpowder, Armored	Can use enemy roads
Cover	Combat I	Archery, Melee, Gunpowder	+25% vs. archery units
Drill I	None	Archery, Siege, Armored, Helicopter, Naval	1 extra first strike chance
Drill II	Drill I	Archery, Siege, Armored, Helicopter, Naval	1 extra first strike
Drill III	Drill II	Archery, Siege, Armored, Helicopter, Naval	+2 first strike chances
Drill IV	Drill III	Archery, Siege, Armored, Helicopter, Naval	+2 first strikes, +10% vs. mounted units
Flanking I	None	Mounted, Armored, Helicopter, Naval	+10% withdraw chance
Flanking II	Flanking I	Mounted, Armored, Helicopter, Naval	+20% withdraw chance; Immune to First Strike
Formation	Combat II	Archery, Mounted, Melee, Gunpowder	+25% vs. mounted units

Promotion Name	Required Promotions	Available to	Effect
Guerilla I	None	Recon, Archery, Gunpowder	+20% hills defense
Guerilla II	Guerilla I	Recon, Archery, Gunpowder	+30% hills defense, double movement in hills
March	Combat III or Medic I	Recon, Archery, Mounted, Melee, Siege, Gunpowder	Can heal while moving
Medic I	Combat I	All except Armored and Helicopter	Heals units in the same tile extra 10% damage per turn
Medic II	Medic I	All except Armored and Helicopter	Heals units in adjacent tiles extra 10% damage per turn
Mobility	Flanking II	Mounted, Armored	-1 terrain movement cost
Navigation I	Flanking I	Naval	+1 movement range
Navigation II	Navigation I	Naval	+1 movement range
Pinch	Combat I	Mounted, Gunpowder, Armored, Helicopter	+25% vs. gunpowder units
Sentry	Combat III or Flanking I	Recon, Mounted, Helicopter, Naval	+1 visibility range
Shock	Combat I	Archery, Mounted, Melee, Siege	+25% vs. melees units
Woodsman I	None	Recon, Melee, Gunpowder	+20% jungle defense, +20% forest defense
Woodsman II	Woodsman I	Recon, Melee, Gunpowder	+30% jungle defense, +30% forest defense, double movement in jungle and forest