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| * Materials classes: Metals, ceramics, polymers, composites
* Properties of Materials: mechanical, electrical, optical properties, etc.
* Social/Cultural properties of materials.
* Role of clay, building, storage, cooking, etc.
* Catal Hoyuk: Importance, history
* Entanglement principles
* Humans depend on things and things depend on humans
* Rare earth entanglement
* Operational chain
* Amorphous materials, obsidian
* Flintknapping
* Glass
* Network modifiers versus network formers
* Glass transition temperature
* Soda lime glass
* Natron and calcium carbonate
* History of glass
* Antimony and colorless glass
* Borosilicate glass (Pyrex)
* Impact of Glass on Modern Society
* Concrete vs. Cement
* Pozzulana Cement
* Limestone versus Lime (CaCO3=>CaO +CO2), role in concrete
* Hydraulic Cement
 | * Modern Portland Cement
* Clinker
* Impact of concrete on Roman Society
* Impact of concrete on modern society
* Copper and bronze alloys
* Work hardening, alloy hardening
* Role of arsenic and tin
* Dislocations
* Annealing or tempering
* Phase diagram
* Impact of bronze
* Trade routes
* Impact of trade
* Development of trade centers
* Processing methods, smelting, casting

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