

Materials Selection for Sculptures

How do you choose the material for your design?

Depends on color, hardness, weight, cost, inside/outside use, and more!

Force of Love, Bronze, Aluminum, and Stainless Steel - Lorenzo Quinn

Bronze

Aluminum

Steel



Bronze (Copper + Tin)



- Able to get fine detail
- Medium cost
- Durable and strong
- Less likely to rust

Also used for:



Cymbals



Bearings



Coins

Steel (Mostly Iron)



- Durable, strong, heavy
- Low cost
- Able to be hammered
- Will rust, needs to be protected

Also used for:



Car parts



Buildings



Nails



Forks, Spoons, Knives

Aluminum



- Light weight
- Very reflective/shiny
- Less strong
- Corrosion resistant

Also used for:



Airplane parts



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Soda cans



Ladders

Bronze	Steel	Aluminum
<ul style="list-style-type: none">● Copper + Tin● Durable, strong● Common for casting (pouring metal in a mold)● Medium cost● Able to get fine detail – expands slightly when solidifying in mold● Less likely to rust● Can use surface finishes to change the color, reflectivity, or protect the sculpture	<ul style="list-style-type: none">● Mostly iron● Durable, strong, heavy● Malleable (can be hammered without cracking)● Low cost● Able to create detailed designs● Available in many shapes● Rusts easily, needs to be protected● Small pieces can be joined together easily● Good for outdoor sculptures	<ul style="list-style-type: none">● Light weight● Very reflective● Less strong● Corrosion resistant - Naturally forms a protective oxide layer to resist environmental attack● Can be difficult to join pieces