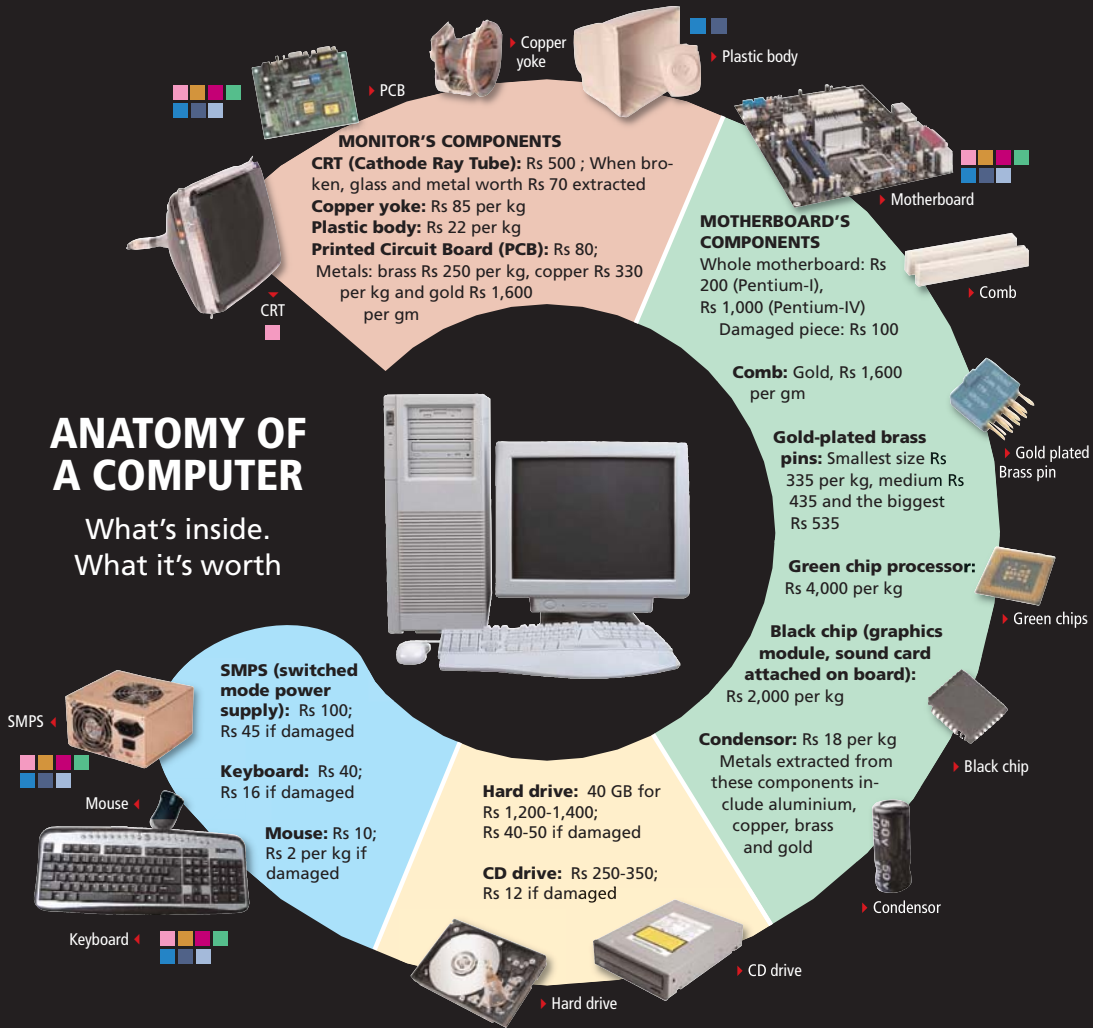


ANATOMY OF A COMPUTER

What's inside.
What it's worth



Occupational and environmental hazards

- **Lead:** A neurotoxin that affects the kidneys and the reproductive system. High quantities can be fatal. It affects mental development in children. Mechanical breaking of CRTs (cathode ray tubes) and removing solder from microchips release lead as powder and fumes
- **Plastics:** Found in circuit boards, cabinets and cables, they contain carcinogens. BFRs or brominated flame retardants give out carcinogenic brominated dioxins and furans. Dioxins can harm reproductive and immune systems. Burning PVC, a component of plastics, also produces dioxins. BFR can leach into landfills. Even the dust on computer cabinets contains BFR
- **Chromium:** Used to protect metal housings and plates in a computer from corrosion. Inhaling hexavalent chromium or chromium 6 can damage liver and kidneys and cause bronchial maladies including asthmatic bronchitis and lung cancer
- **Mercury:** Damages brain and kidneys, impairs foetus
- **Beryllium:** Found in switch boards and printed circuit boards. It is a carcinogen and causes lung diseases
- **Cadmium:** A carcinogen. Long-term exposure causes Itai-itai, which affects kidneys and softens bones. Cadmium is released into the environment as powder while crushing and milling of plastics, CRTs and circuit boards. Cadmium may be released with dust, entering surface water and ground-water
- **Acid:** Sulphuric and hydrochloric acids are used to separate metals from circuit boards. Fumes contain chlorine and sulphur dioxide, which cause respiratory problems. They are corrosive to the eye and skin

