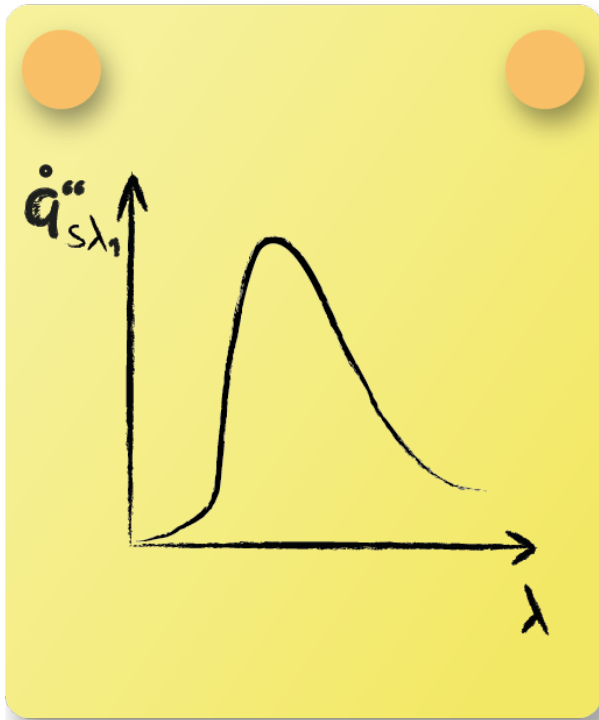


## Fundamentals: Task 5



The graph represents planck's law which specifies the spectral electromagnetic radiation density of a black body.

The integral over the entire spectrum is given by Stefan-Boltzmann's law:



$$\dot{q}_s'' = \int_0^\infty \dot{q}_{\lambda,s}'' d\lambda = \sigma T^4$$

It states that the overall radiation density is proportional to the Stefan-Boltzmann constant  $\sigma$  and the fourth power of the body's temperature.