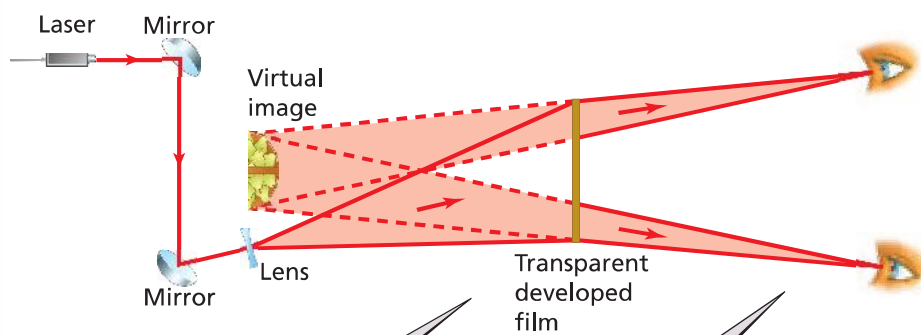
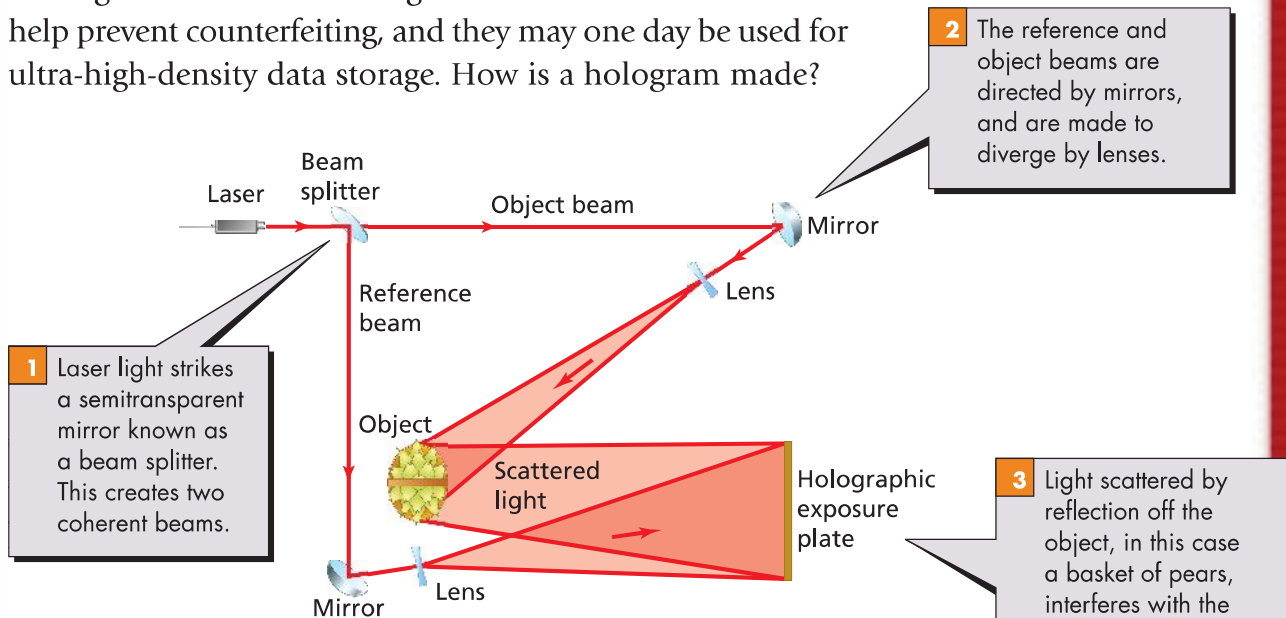


# How it Works Holography

Holography is a form of photography that produces a three-dimensional image. Dennis Gabor made the first hologram in 1947, but holography was impractical until the invention of the gas laser in 1960. Holograms are used on credit cards to help prevent counterfeiting, and they may one day be used for ultra-high-density data storage. How is a hologram made?



## Thinking Critically

- Infer** A hologram records a complex pattern of constructive and destructive interference fringes. Why do you suppose a vibration-isolated surface is needed for good results?
- Use Scientific Explanations** Identify and explain where the following wave properties occur in the diagrams: reflection, refraction, and interference.