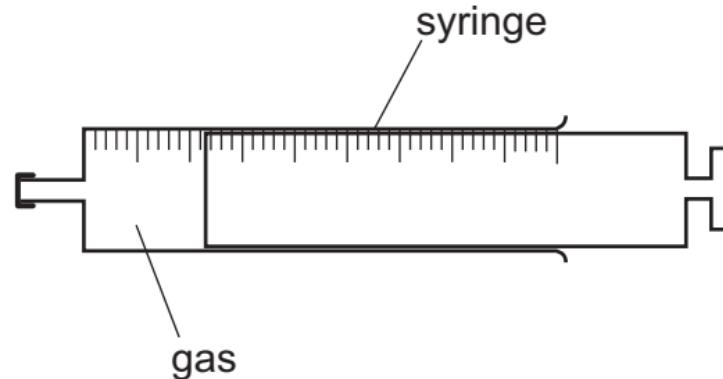


16 A gas is contained inside a syringe, as shown.



The initial volume of the gas is  $2.00\text{ cm}^3$ .

Atmospheric pressure is  $101\text{ kPa}$ .

What is the work done by the gas on the atmosphere when the gas is heated and expands to a volume of  $6.00\text{ cm}^3$ ?

**A**  $404\text{ }\mu\text{J}$

**B**  $404\text{ mJ}$

**C**  $404\text{ J}$

**D**  $404\text{ kJ}$