

kinetic carnival leidenfrost effect



In which our hero proves his virility and masculinity by burning water, cooking a crêpe on his iron, dipping his finger into 1000°F molten lead, guzzling -200°C liquid nitrogen, holding the lit end of a cigarette, and debunking the “mind-over-matter” myth of firewalking.

DIAGRAM 1. What’s the difference between when the pan is pretty hot and when it’s very hot? Describe what happens to water on the pan in each case. Complete the diagrams below.

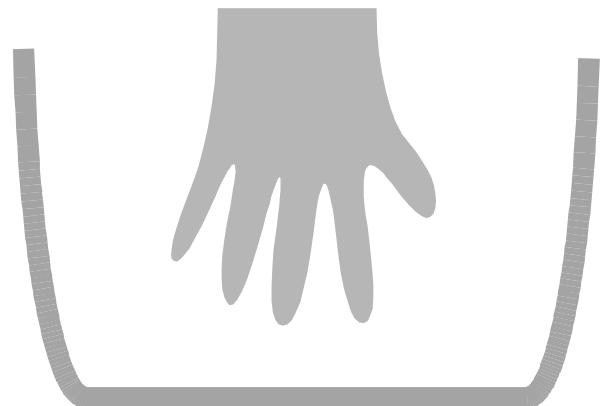


Pretty Hot



Very Hot

DIAGRAM 2. How does the Leidenfrost effect save Jearl’s hand when it goes into the 1000°F molten lead? Answer using words and complete the diagram below. **Include labels in the diagram.**



What are the dangers involved in this demonstration?

DIAGRAM 3. How does the Leidenfrost effect keep Jearl's mouth from being frozen by the liquid nitrogen?

Complete the diagram. Show the location of the liquid nitrogen and show whatever it is that saves Jearl from a nasty freeze burn.

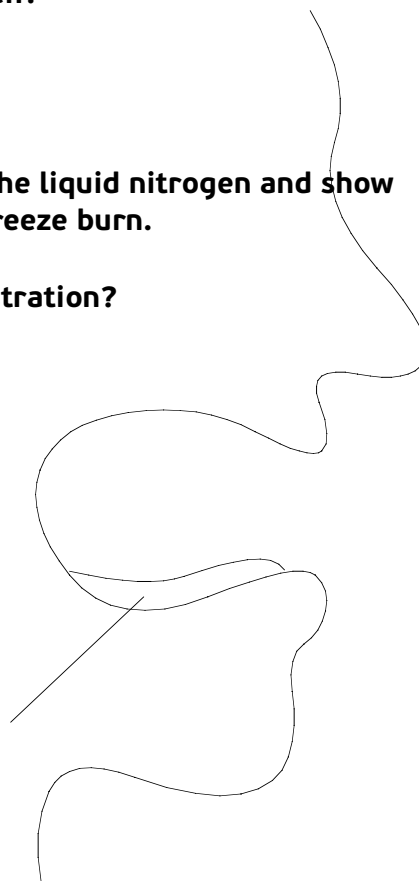
What are the dangers involved in this demonstration?

a.

b.

c.

JEARL'S TENDER LITTLE TONGUE



DIAGRAMS 4 & 5. Draw a diagram that shows why Jearl isn't burned by the cigarette. Draw a diagram that shows why Jearl isn't burned by the burning embers from the burned down bonfire. Label both diagrams.