Laminar and Turbulent Flow SPH4C

As a fluid flows, the forces of	Fluid		_ is the study of the factors that affect fluids in motion.					
Water has a	As a fluid	flows, the forces of			cause	internal		
Water has a	, or		to the flow.					
THE WATER IS THE LEAST VISCOUS AND ROWS THE SHOPE THE MOLECULES ARE MUCH ALOSE TOGETHER WACH THE WATER AND THE WAT	The resistance of a fluid to flow is called its							
THE WATER IS THE LEAST VISCOUS AND FLOWS THE HACKEQUES ARE HACKEQUES AND FLOWS THE HACKEQUES THE HACKEQUES AND FLOWS THE HACKEQUES AND FLOWS THE HACKEQUES THE HACKEQUES THE HACKEQUES THE HACKEQUES AND FLOWS THE HACKEQUES THE HACKEQUES THE HACKEQUES THE HACKEQUES THE HACKEQUES AND FLOWS THE HACKEQUES AND FLOWS THE HACKEQUES AND FLO	Water has a viscos		y. Syrup has a		viscosity.			
As temperature increases, the viscosity of a liquid generally		WATER OF THE PARTY		RUP	SOAP SOAP			
the particles of the liquid have more and flow more easily. However, gases generally in viscosity as the particles more often making it more difficult for them to flow in one direction. As fluids flow, their particles also interact with their surroundings and experience external friction. In a pipe, the water flowing close to		VISCOUS AND FLOWS THE FASTEST BECAUSE ITS MOLECULES ARE THE FURTHEST APART WHICH MEANS LESS	MUCH CLOSER TO MEANS THERE IS INTERNAL FRICTIO THAT ITS FLOW R	OGETHER WHICH A LOT MORE ON. THAT MEANS PATE IS LOWER AND	OUT OF THE WATER AND THE SYRUP. THE MOLECULES ARE VERY TIGHTLY PACKED TOGETHER. BECAUSE THEY'RE SO CLOSE, THERE IS A LOT OF INTERNAL FRICTION.			
However, gases generally in viscosity as the particles more often making it more difficult for them to flow in one direction. As fluids flow, their particles also interact with their surroundings and experience external friction. In a pipe, the water flowing close to	As temperature increases, the viscosity of a liquid generally because							
more often making it more difficult for them to flow in one direction. As fluids flow, their particles also interact with their surroundings and experience external friction. In a pipe, the water flowing close to Laminar	the partic	les of the liquid have mo	re	and	flow more easily.			
As fluids flow, their particles also interact with their surroundings and experience external friction. In a pipe, the water flowing close to Laminar	However,	gases generally		_ in viscosity a	as the particles			
friction. In a pipe, the water flowing close to Laminar	more ofte	n making it more difficult	for them to	flow in one dir	rection.			
Laminar	As fluids	flow, their particles also i	nteract with	their surround	ings and experience exte	ernal		
				Laminar				

water in the middle of the pipe can be

moving quickly.

If the	speed of a flow is	and adjacent regions flow over		
one a	another, the flow is called	flow.		
This	term can also be applied to a	air flow		
Lami	nar flow is difficult to achieve	e because as the fluid flows past the ob	oject, the flow	
beco	mes irregular, resulting in wh	nirls called or		
Eddie	es are common in	flow , a fluid flow with a		
that r	resists the fluid's motion.	Turbuler	nt	
Turbu	ulent flow		N	
kineti	ic energy as some of the end	ergy is	10	
conv	erted into	_and	P >	
	energy.			
Turbu	ulence increases with the	of the fluid.		
One	mechanism of reducing turb	ulence in liquids is introducing small ar	nounts of liquid	
Engir	neers consider the effects of	turbulence when	structures.	
For e	example, high rise buildings	can direct strong of air do	wn to street level.	
More	Practice			
1.	Match each of the following	g terms to its description:		
		A. resistance of a fluid to flow		
		B. flow in which adjacent regions flow	smoothly	
	turbulent	C. flow in which disturbances resist the	•	
	viscosity	D. whirls in the flow of fluid	o naid now	
2				
2.	-	in order from low to high viscosity:		
		whipping cream, skim milk, honey.		