

Nanotechnology Education - Engineering a better future

NNCI.net

Very Good	Good	Fair
Lab A prediction questions	Lab A prediction questions	Lab A prediction questions are
are answered correctly	are answered correctly but	not answered correctly nor in
and in complete sentences	not in complete sentences	complete sentences
Pre lab questions are	Pre lab prediction questions	Pre lab prediction questions
answered correctly and in	are answered correctly but	are not answered correctly nor
complete sentences	not in complete sentences	in complete sentences
Iodine diffusion	lodine diffusion	lodine diffusion
measurements are double	measurements are not	measurements are not double
checked and recorded in	double checked but are	checked nor recorded in cm in
cm in table	recorded in cm in table	table
Student carefully draws	Student draws the final	Agarose plates are poorly
the final agarose plates	agarose plates and does not	drawn and not labeled
and correctly labels	correctly label	
Student correctly explains	Student explains, but not	Student does not correctly
diffusion result with a	clearly, diffusion result with	explain diffusion result with a
0.25% plate	a 0.25% plate	0.25% plate
Student clearly can explain	Student can explain why the	Student cannot explain why
why the diffusion rates	diffusion rates differ	the diffusion rates differ
differ between the	between the different	between the different plates
different plates	plates, but with some	between the unterent plates
	misunderstanding	
Student can clearly explain	Student can explain why the	Student cannot explain why
why the central iodine well	central iodine well does not	the central iodine well does
does not change color	change color but with some	not change color
does not change color	misunderstanding	
Student can clearly explain	Student can explain what	Student cannot explain what
what the Macroscale	the Macroscale Nanoparticle	the Macroscale Nanoparticle
	-	•
Nanoparticle Apparatus	Apparatus represents but	Apparatus represents
represents	with some misunderstanding	Student connet why come of
Student can clearly explain	Student can explain why	Student cannot why some of
why some of the balls in	some of the balls in the	the balls in the apparatus
the apparatus were able to	apparatus were able to	were able to diffuse and
diffuse and others not	diffuse and others not but	others not.
	with some misunderstanding	
Student can correctly	Student is somewhat unclear	Student cannot correctly
answer what determines if	as to what determines if an	answer what determines if an
an atom/molecule can	atom/molecule can diffuse	atom/molecule can diffuse
diffuse through a	through a substance	through a substance
substance	0	0

Visualizing Diffusion in Real Time Rubric