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Deadly Scorpion Stings Modeled with Stella

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Kendall Jr. High School

Our projects

- Match Speed
 - To allow someone to figure out how far a bullet would travel
 - From a certain height
 - On a calm day
 - At a certain speed
- Deadly Scorpion Stings
 - To allow someone to figure out how quickly a poison is removed from a person
 - Who has a certain weight
 - With a certain amount of venom injected

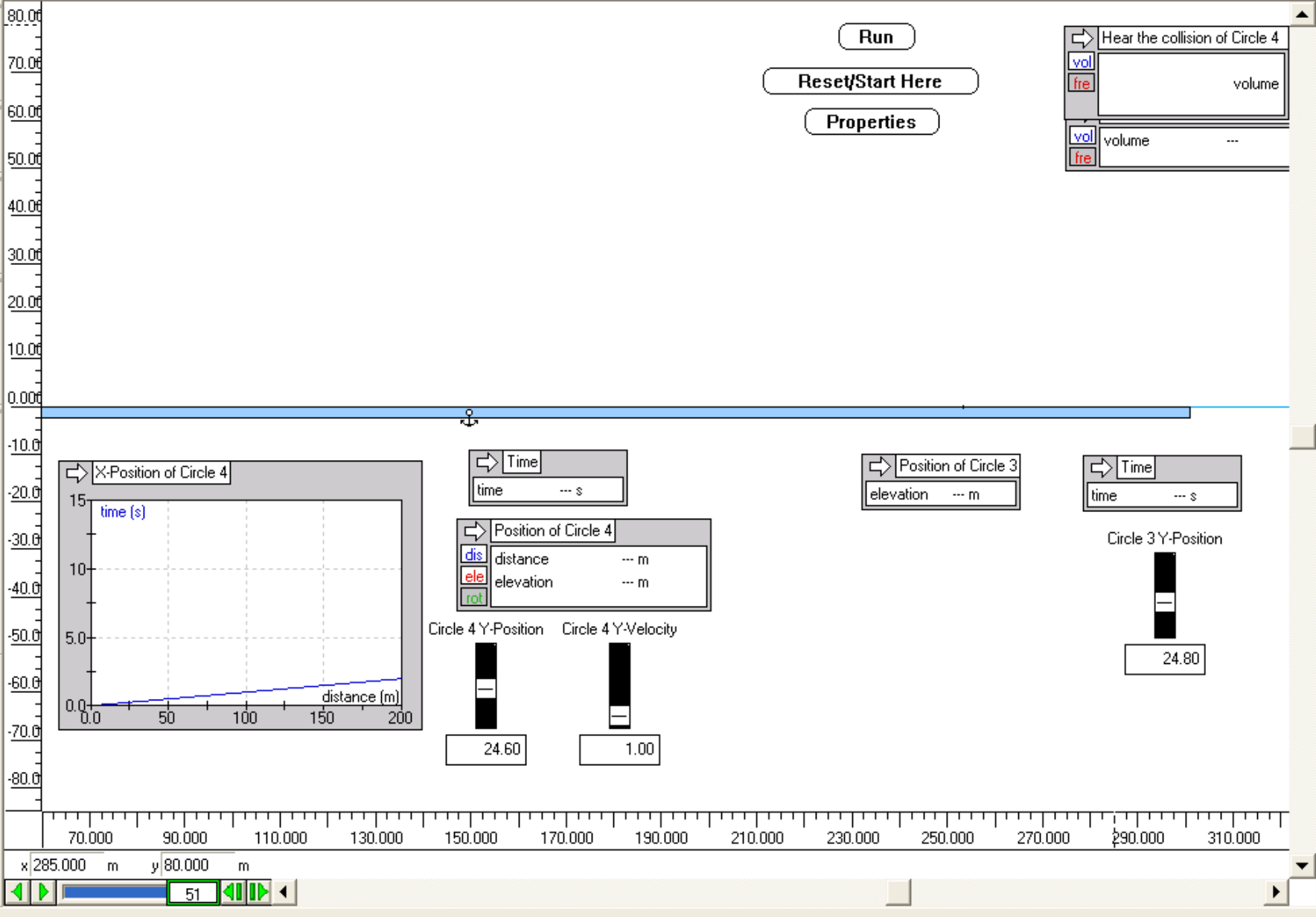
Match Speed

- We used real life demonstrations to double check our model.

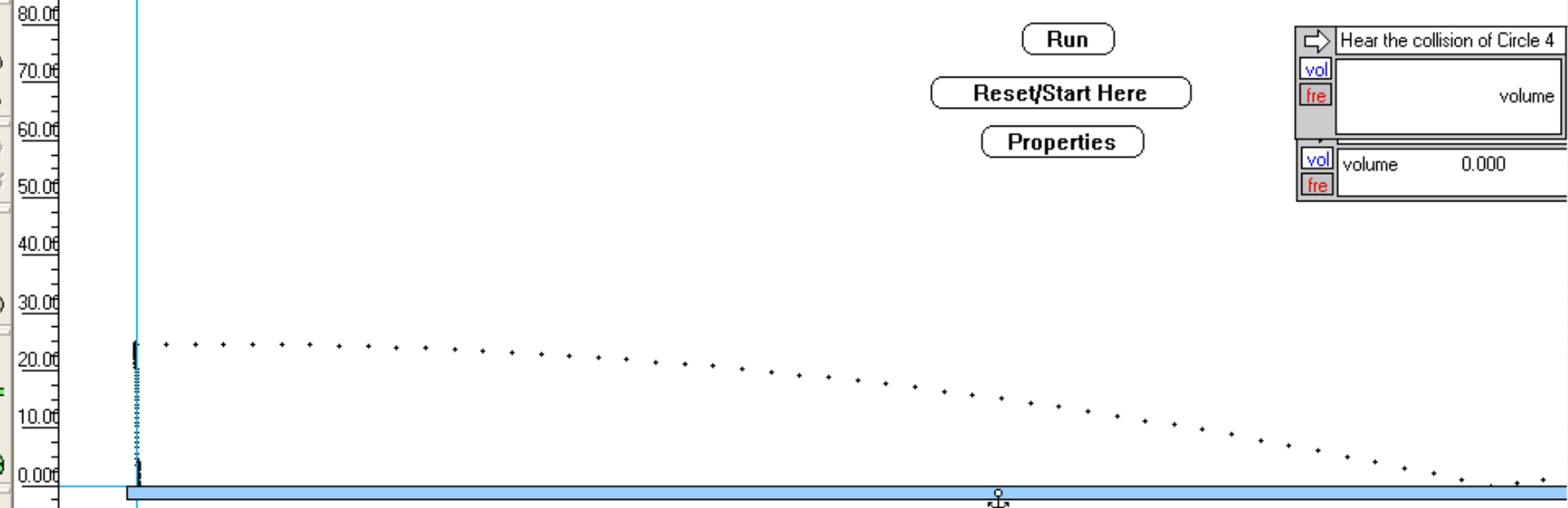
Match Speed

- Our model demonstrates real life physics

Join Split



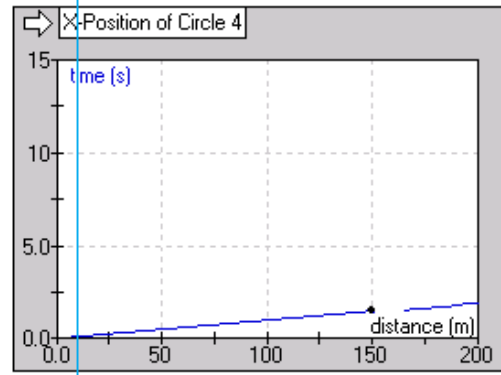
Join Split



Hear the collision of Circle 4

vol		volume
fre		

vol	volume	0.000
fre		



Time

time 2.750 s

Position of Circle 4

dis	distance	271.232 m
ele	elevation	3.499 m
rot		

Circle 4 Y-Position

24.60

Circle 4 Y-Velocity

1.00

Position of Circle 3

elevation 4.120 m

Time

time 2.750 s

Circle 3 Y-Position

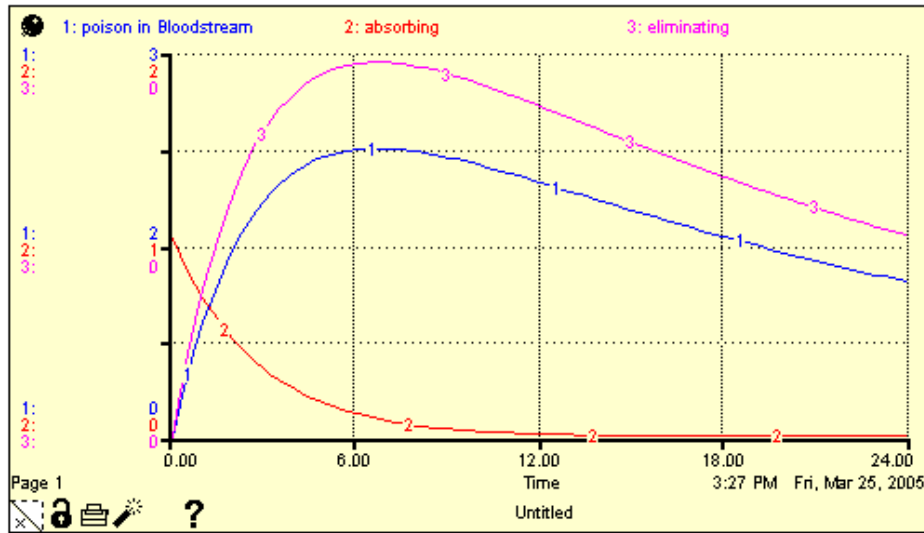
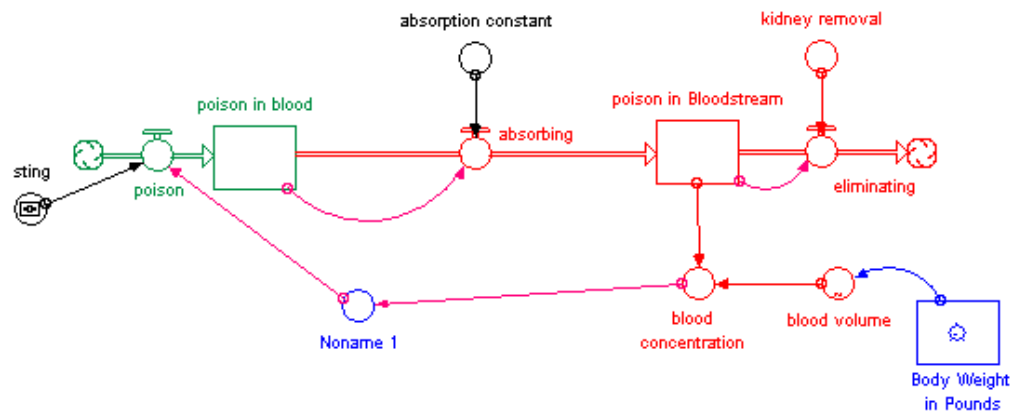
24.80

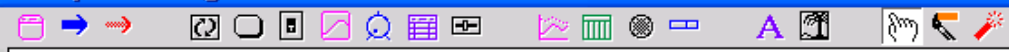
Match speed

- Problems with our model
 - Need to change screen size so that the graphic can be seen better
 - Need to add in factors such as wind direction and speed
 - Need to add in factors such as different bullet calibers so that different speeds would be more accurate

Scorpion Stings

- Our model demonstrates how poison is removed from the human body and how factors can change due to different body weights.





in Pounds

108.500
125.500
100.000 151.000

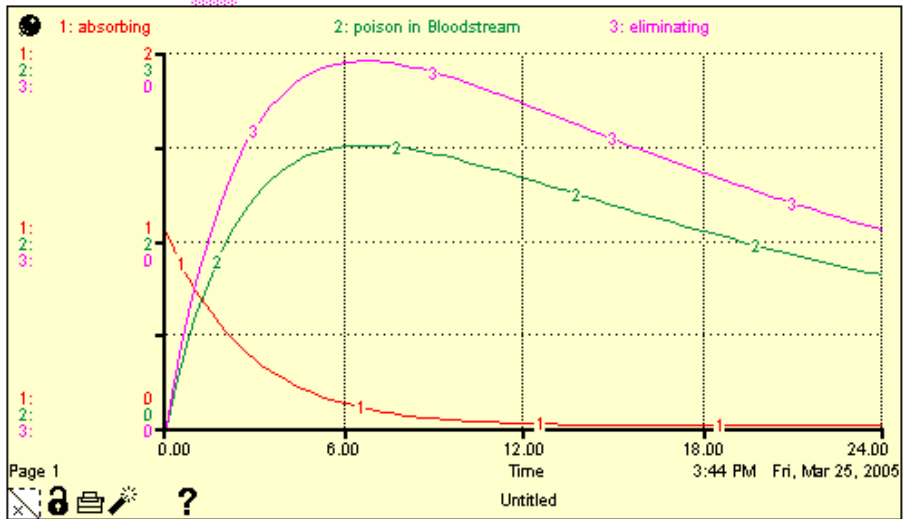
U ?

Run

sting

1.0000 4.0000

U ? 1.7500



Deadly Scorpion Stings

- Problems with our model
 - Need to fine tune the control sliders so that actual amounts of venom are represented
 - Need to do more research on the rates that things are taking place
 - Kidney removal
 - The rate that the poison enters the bloodstream