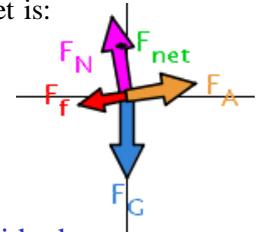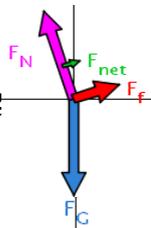Clicker questions for
Ramp- Force and Motion activity 1

If you want to make questions like I have where only
one variable changes and you see what changes on the
diagram: Play with the sim until you get a diagram
you like. (you can go pass the spot) **Pause** the sim.
Use the vertical bar to go back to a spot that you liked,
then you can change variables (hit enter to make the
change take place) and the changes will show on the
diagram without having to run the sim.

1. If the free body diagram for Betty
   pushing her file cabinet is:
   What will happen?

A. The cabinet will slide down

B. Betty will push it up the ramp

C. The cabinet won't move

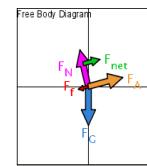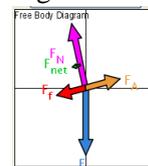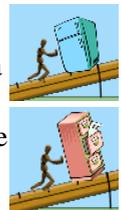2. If this is the free body
   diagram for the fridge,
   what could be happening

A. Someone is pushing it up
   the ramp
B. It is sliding down the ramp
   going faster
C. It is sliding down the ramp
   going slower
D. It is sitting still

3. One of these diagrams is for a
   fridge (175 kg) and the other is for a
   file cabinet (100 kg). If all the
   conditions are the same, which is the
   fridge?
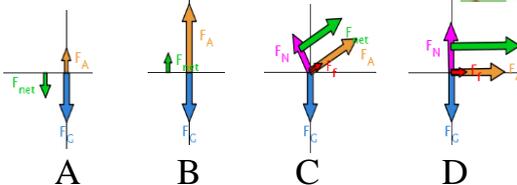
   A   B   C no way to tell

4. Which diagram could
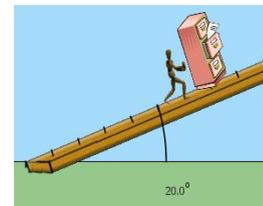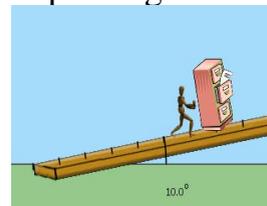   show a box of books being
   lifted straight up?

   A   B   C   D

   E no way to tell

5. Which would require less
   pushing force?

   A   B

   C no way to tell

6.It could be easier to push on the 20º ramp, because

A. The friction force is less

B. The cabinet weighs less

C. It is easier to plant your feet