

# Investigating Friction Answer Key

## Conclusions

Based on your data, answer the following questions:

1. If a surface has more friction, it takes \_\_\_\_\_ time for the puck to slide down a certain distance.  
a) more  
b) less

2. In your investigation, which grit sandpaper has more friction?  
Answers vary depending on the materials provided to students.

3. If you want a rougher surface, which grit sandpaper would you choose?  
a) 80  
b) 120

4. What is the effect of puck mass on the descent time?  
There should not be a significant difference in the observed time.

5. How did the solid additives change friction?  
Answers vary depending on the materials provided to students.

6. Summarize three things you learned from this investigation.

Answers may vary:

- 1) Lower grit sandpaper is rougher and has more friction.
- 2) Altering surface structure affects the motion of a sliding object.
- 3) You can modify friction by adding solid particles to the surface.

7. Can you use this experimental setting to investigate another factor that alters friction? Describe how.

Answers may vary:

This setting can be used to compare the friction on different surfaces. It can also be used to investigate the effect of the surface area in contact.