

Name: _____

Intervention 8.2.3 Energy Transfer

1. What is the definition of friction? _____

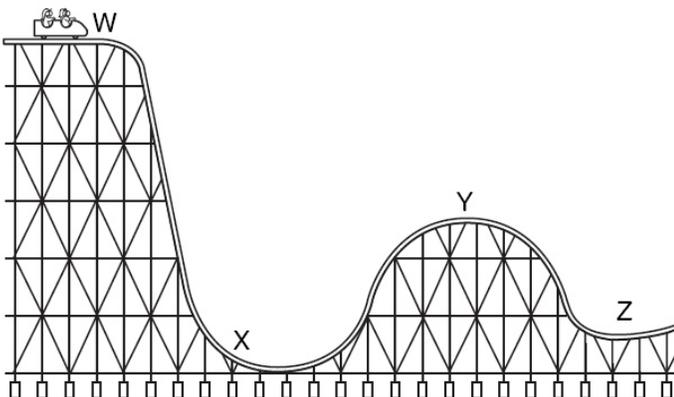
Draw and label a colored picture of something that has A LOT of friction.

Draw and label a colored picture of something that has LITTLE friction.

2. What is the definition of kinetic energy? _____

Draw and label a colored picture of something that has A LOT of kinetic energy.

Draw and label a colored picture of something that has LITTLE kinetic energy.



3. What happens to the kinetic energy of the cart from:

a. $W \rightarrow X$

b. $X \rightarrow Y$

c. $Y \rightarrow Z$

(hint: increase/decrease)

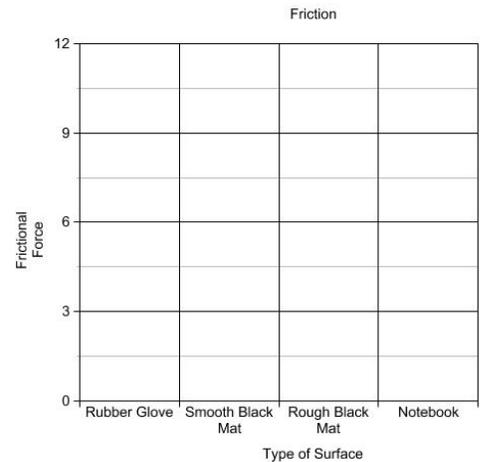
4. Using the data table below, create a bar graph of the frictional force for the different surfaces.

Then, answer the questions below.

Type of Surface	Frictional Force (N)
Rubber Glove	6.8
Smooth Black Mat	8.1
Rough Black Mat	12.2
Notebook	3.9

a. Which surface has the MOST friction?

b. Which surface has the LEAST friction?



Video: Friction

1. Friction is a force that results whenever two surfaces are _____ together.
2. Friction turns work into _____.
3. If you tie a _____. It's held together by friction.
4. Friction _____ moving things and turns motion energy into _____.
5. In _____ there is almost no friction.
6. Your fingerprints are necessary for you to _____ things.
7. Friction comes from _____.
8. The more electrons repel each other the _____ friction there is.
9. When skis or skates slide over ice or snow the friction creates a layer of _____ which _____ friction.
10. Friction is necessary when you are on a bike to stay _____.
11. Cleats or spikes on shoes make _____ friction because they provide a _____ surface.
12. Rolling friction is _____ than sliding friction.
13. Ball bearings purpose is to create _____ friction.
14. In order for a train to move on the tracks there must be friction between the _____ and the _____.
15. Heat shields on a space craft are necessary when it reenters the earth's atmosphere because at the high speed of entry air will _____.
16. Crickets use friction to _____.
17. Mucous on slugs is remarkable because it's both _____ and _____.
18. When air molecules _____ into each other they cause friction.