Name_____ Period _____

NEWTON'S LAWS OF MOTION WEBQUEST

PART 1: NEWTON'S LAWS OF MOTION

1. _____ was one of the greatest scientists and mathematicians that ever lived.
2. *Where* was he born? _____ *When* was he born? _____
3. *When* did he die? _____ *How old was he when he died?* _____
4. In college, which *3 subjects* was he interested in? _____, _____ & _____
5. What did he call his new ideas about motion? _____
6. Besides motion, he had ideas about _____, _____ & _____.
7. Why were his accomplishments so important? _____

   _____

FIRST LAW OF MOTION

8. *STATE ALL OF NEWTON'S 1st LAW:* _____

   _____

   _____

   _____
9. Another name for this law is _____
10. *INERTIA* means that objects want to keep doing _____ because all objects resist change in their _____.
11. In the skater animation, what *unbalanced force* causes the skateboard to stop moving? _____
12. What happens to the skater? _____ (THIS IS AN EXAMPLE OF INERTIA!)
13. In the car animation, what *unbalanced force* causes the car to stop moving? _____
14. What happens to the driver? _____

SECOND LAW OF MOTION

15. According to the 2nd law, how is acceleration produced? _____
16. The 2nd law states that objects with more _____ require more _____ to move (accelerate) them.
17. Basically, _____ objects require more _____ to move them the same _____ as a _____ objects.
18. The 2nd Law gives an exact relationship between_____, _____& _____.
19. According to the 2nd Law, the mathematical formula for *FORCE* = _____X_____.

THIRD LAW OF MOTION

20. *STATE ALL OF NEWTON'S 3rd LAW* _____

21. According to the 3rd law, for every force there is a _____force, which is equal in _____ but opposite in _____.

22. In other words, when you push on an object it _____ back _____as hard.

23. *Draw the rocket and label the arrows on either side of it.*

24. A rocket proves the 3rd law because its *ACTION* is _____ and the *REACTION is* _____.

THREE LAWS OF MOTION QUIZ

Read each question and record your responses below. You may use this sheet to help you and you may go back to any of the previous pages on this website!

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

PART 2: FRICTION

1. *FRICTION* is _____.
2. Friction always works in the _____ direction of an object that is moving, or trying to move.
3. *Draw the picture of the object (to the left) being pushed and label the arrows.*

4. Friction always _____a moving object down.
5. The amount of friction depends on the _____.
6. _____ surfaces produce _____friction than smoother surfaces.
7. Why is it harder to push an object on carpet than it is on a wooden floor? _____ _____
8. Friction also produces _____.

CLICK "NEXT"

9. Explain an example of how friction can be *USEFUL*. _____
10. Explain one way friction can be *REDUCED*. _____

CLICK "NEXT"

11. What is *AIR RESISTANCE*? _____

PART 3: TYPES OF FRICTION

1. According to the site, *FRICTION* is _____.
2. There are _____ types of friction: _____, _____, _____ & _____.
3. Static, sliding, & rolling friction occur between _____; fluid friction occurs in _____ & _____.
4. *Static friction* acts on objects when they are _____.
5. Example of static friction:_____
6. *Sliding friction* acts on objects when they are _____.
7. Sliding friction is_____ than static friction.
8. Example of sliding friction:_____
9. *Rolling friction* acts on objects when they are _____.
10. Rolling friction is much _____ than _____ friction or _____ friction.
11. Example of rolling friction:_____
12. *Fluid* friction acts on objects that are _____.
13. A *fluid* is a substance that can _____ and_____.
14. Fluids include _____ and _____.
15. Example of fluid friction:_____
16. *Look at the skydiver. What causes him to slow down as he descends toward the ground?* _____

    _____
17. Fluid friction is greater for _____ or _____moving objects.
18. *Scroll down and read the summary*. List the types of friction I order from greatest to weakest.

    _____ *(strongest),* _____ & _____ *(weakest)*

QR CODES

PART 1: PART 2: PART 3: FRICTION

LAWS OF FRICTION TYPES OF

MOTION

Direct Links to Sites

Part 1: http://teachertech.rice.edu/Participants/louviere/Newton/newton.html
Part 2: http://www.bbc.co.uk/bitesize/ks2/science/physical_processes/friction/read/2/
Part 3: http://www.ck12.org/Physical-Science/Types-of-Friction-in-Physical-Science/lesson/Types-of-Friction-MS-PS/