Science FINAL EXAM/Grade 3

Dear Parents,

Please revise these worksheets with your children for the final exam on **Thursday 6 / 12 / 2018** in addition to the required material in the books as follows:

Unit 2: Forces.

Lesson 1: what Are forces?

Lesson 2: What Are Some Types of Forces?

Lesson 3: What Forces Act from a Distance?

Unit 3: Motion

Lesson 1: what Is Motion?

Lesson 2: what Are Some Patterns in Motion?

Note: This revision sheet is very important, study well from all previous worksheets with summery, and all quizzes.

Q1] Label each image with either push or pull and strong or weak.
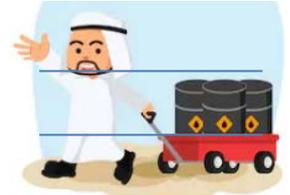
Q2] Choose the correct answer.

1. A_____ is a simple machine because it changes the strength or direction of a force.
   a. thermometer
   b. bookcase
   c. pulley

2. When a quarterback throws a long pass, his hand pushes the football with a_____ force.
   a. Strong
   b. Medium
   c. Weak

Q3] Sort by whether the action will change the **strength** or the **direction** of a force.

| Action	Change
-Hit a tennis ball with a racket.	
-Use brakes to stop a bicycle	

Q4] Answer:
How can a force change the direction of a moving object?

_____

_____

Q5] Choose the correct answer and circle it.

1. To pull the sled **uphill**, it takes (stronger , weaker) force.

2. To pull the sled on the **level ground**, it takes (stronger , weaker) force.

3. What makes a swing start or stop moving?   (force , rope)

Q6] Circle around all simple machines.
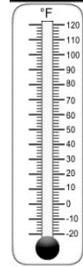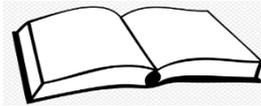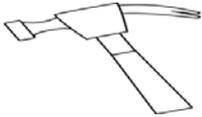
Unit 2 Lesson 2

Q1] Choose the correct words to complete the following statements.

Push   pull   away from   toward

-When you --------on an object, it moves farther------------you.

-When you --------on an object, it moves closer-------------you.

Q2] Predict who will win and whether the forces are balanced or unbalanced.

Force A	Force B	Balanced or unbalanced?
big horse A	big horse B	
big horse A	adult elephant	
10 years old	adult	

Q3] Look at the picture. Which kind of forces this picture shows.
A. Balanced forces.
B. Unbalanced forces.
C. Gravity.
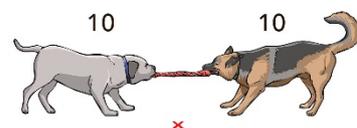
Q4] Complete the table below.
Write High or Low Friction.

| Item	Surface	High or Low Friction
ice skates	Ice	
hiking boots	grass	
using bicycle brakes	street	

Q5] Fill in the blank.

Gravity   Friction   balanced   unbalanced

A.   A force that opposes motion between objects that are
touching is _____
B.   _____ is the force that pulls things down toward the
center of Earth.
C. When one force is stronger than the other and the force act in
different direction, they are _____ forces.
D. When two forces are the same size and strength but act in
opposite directions, they are _____ forces.

Q6.Which concept of force is being shown in the image?

1. The seesaw has contact force.
2. The forces are balanced.
3. Forces are moving in opposite directions.
4. The forces are unbalanced.

Q6] Classify these forces into:
Contact force, balanced forces, unbalanced forces, Gravity, Friction
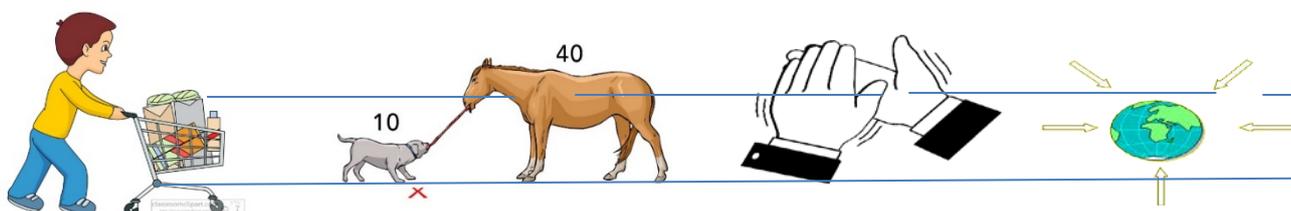
Unit 2 Lesson 3

Q1. Find all the magnets in your home?

Q2. Choose where the field of magnet is strongest **(silver end parts, both ends, the outer edges)** .
   Iron fillings are most concentrated:
   1. at the----------of the horseshoe magnet.
   2. at------------of the bar magnet.
   3. at -------------of the donut magnet.

Q3.Choose the words from the word bank that correctly complete each sentence.
-Many iron filings collect near the _____ of a magnet.**[middle, poles]**
-The farther from the magnet, the _____ filings collect.**[fewer, more].**

Q4. Put the correct phrase into the table to decide if the two objects will attract or repel.

Poles	Attract/Repel
N to N	------------
S to S	------------
N to S	------------

Q4.Name four objects in the home powered by electrical energy?

Q5.Choose the correct answer.

1. Electricity travels long distances through--------------
   a. electrical meters   b. generators   c. high voltage lines

2. What two objects must be for electric and magnetic forces to act.

   a. not touching   b. touching   c. uncharged

3. How many poles does a magnet have?
   a. none   b. One   c. two

4. Which sentence best explains how a magnetic door latch works?

   a. Static electricity charges the magnets.
   b. Like poles of two magnets repel each other.
   c. Opposite poles of two magnets, attract each other.
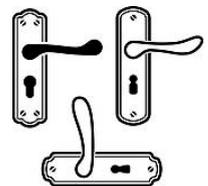
Q6.Select as many answers as are true.

  - Static electricity------------
  a. can be caused by objects rubbing together.
  b. moves in all direction.
  c.is a charge that builds up on an object.
  d. has two poles.

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Unit 3 Lesson 1 and 2

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Q1.Which of these can cause an object to change position?
a. force
b. distance
c. speed
Q2.How can you tell whether the shark was in motion?
  1. The points on the map did not move.
  2. Its position changed.

3. Its position was observed six times in two days.

Q3.Choose the correct words to complete the following statements.

Speed, zero , remain at rest

a. Unbalanced forces cause changes in the----------
 of an object in motion.

b. If forces are balanced, an object at rest will------------

c. Balanced forces means that the forces acting on an object add up to---------------

Q4. Write the type of motion under each picture.(back and forth, zigzag, spinning, up and down)

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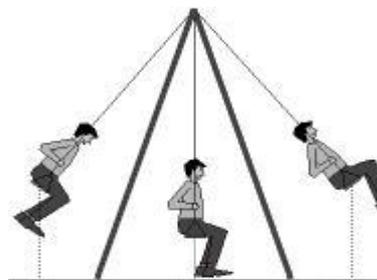
Q5.For each example, make a prediction of what motion you think will happen next (circular motion , zigzag motion , back and forth, motion, up and down motion).

Situation	What motion will happen next?
A Ferris wheel	
A mall elevator.	

Snake's movement	
The wheels on the bus move the bus.	
A snow skier moving down a hill, making a wavy path.	
Playing with a swing.	

Q6. What does observe the patterns of motion of an object help you do? Choose all that apply.

1. Predict its future motion

2. Infer its past motion

3. Measure the motion