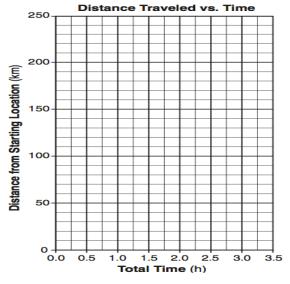
## **Physical Science – Review**

- 1. A car traveled a total distance of 240 kilometers between 8:00 a.m. and 11:00 a.m. The data table below shows the car's distance from the starting location at 0.5-hour intervals during the trip.
  - a. One the grid below, make a graph using the data in the table. Place an **X** to show the distance from the starting location of the car for each 0.5-hour interval. Connect the **X**'s with a line.

Distance Traveled vs. Time Total Distance from Time Starting Location Time (kilometers) (hours) 8:00 0.0 0 8:30 0.5 55 9:00 1.0 90 9:30 1.5 90 10:00 2.0 142 10:30 2.5 200 11:00 3.0 240



- b. Provide *one* possible explanation for the distance the car traveled during 9:00-9:30am.
- c. Use the space below to determine the car's average speed.
- 2. An object accelerates at 3 meters per second2 when a 10-newton (N) force is applied to it. Which force would cause this object to accelerate at 6 meters per second2?

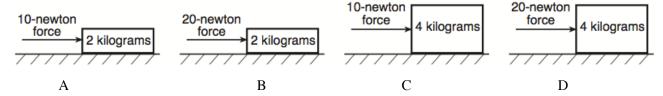
a. 5 N

c. 20 N

b. 10 N

d. 30 N

3. The diagrams below show smooth blocks of wood being pushed across the same surface. The mass of the block and amount of force applied are labeled in each diagram. In which diagram would the block of wood have the greatest acceleration?

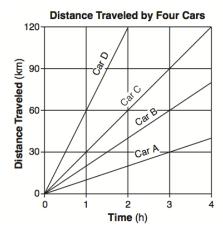


4. The graph below shows the distance traveled by four cars: **Car A, Car B, Car C** and **Car D**, over a period of time. *Determine the average speed of each car.* 









- e. Which car traveled the fastest?
- 5. A student pushes against a tree with a force of 10N. The tree does *not* move. What is the amount of force exerted by the tree on the student?

- 6. If the force used to push a shopping cart increases, the cart's acceleration will:
  - a. Decrease
- b. Increase
- c. Remain the Same
- 7. Use the grid below to graph the average height of males and females over time.

Age (years)	Average Height (cm)		Average Mass (kg)	
	Female	Male	Female	Male
8	127	128	28	27
10	140	140	34	35
12	152	154	46	45
14	161	165	55	56
16	163	175	57	66

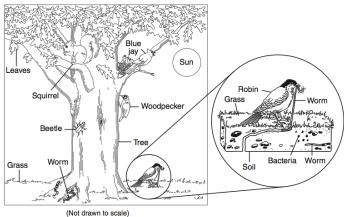
170
160
150
140
130
120
8 9 10 11 12 13 14 15 16 17
Age (years)

a. Provide a *claim* that explains the relationship between height and gender.

Name:		
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## **Life Science – Review**

- 1. Which process does this diagram best represent?
  - a. Ecological Succession
- c. Natural Selection
- b. Genetic Engineering
- d. Asexual Reproduction
- 2. Use the diagram to the right to answer the following questions:
  - a. Identify the original source of energy for this ecosystem.
  - b. Explain why bacteria in the soil are necessary in this ecosystem.
  - Identify *one* predator-prey relationship shown in this diagram.

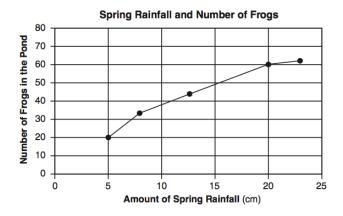


Adapted from: Project Learning Tree Environmental Education Activity Guide pre K-6 American Forest Foundation, Fifth Edition, 199

3. Complete the table below by identifying the human organ system that performs each function listed.

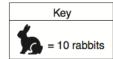
Function	Human Organ System
Controls and coordinates the body's responses	
Carries nutrients to the cells and waste away from the cells	
Turns large food molecules into smaller food molecules	
Supplies oxygen to the blood and body	

4. Explain the relationship between the number frogs in the pond and the amount of spring rainfall.



5. The diagram to the right shows a rabbit population over time.



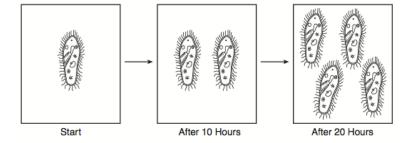


Which environmental factor may have contributed to the increase in their population?

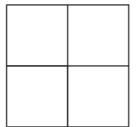
- a. Decrease in Resources
- c. Increase in Disease
- b. Decrease in Predators
- d. Increase in Pollution
- 6. The diagram below shows a single-celled organism and its offspring that resulted from cell division over a period of 20 hours.

If the organisms continue to reproduce as exually at this same rate, how many organisms will there be after 30 hours?

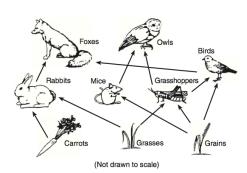
- a. 6
- c. 8
- b. 7
- 9.16



- 7. Two pea plants with green pods,  $Gg \times GG$ , were crossed.
  - a. Complete the Punnett Square below to show the results of the cross.
- G g
  G
- b. What percentage of the offspring produced will have green pods?
- c. Show the genetic makeup of two parent-pea plants that have all yellow pods.



- 8. The diagram to the right shows a food web for a community.
  - a. Which organisms are:
    - i. Carnivores
    - ii. Herbivores
    - iii. Omnivores



b. Explain what would happen to the owl population if their was a drought, and the grain-plants were destroyed.