

# **Camp Explore**

## **Pre-test / Post-test**

**Print off the pages for the classes your group will be participating in while on your Camp Explore field trip.**

## OWL PELLETS

1) The indigestible parts of the prey eaten are stored in this organ and later regurgitated as a pellet.

- a. Intestines
- b. Cloaca
- c. Gizzard

2) Why must an owl move its entire head to change its field of view?

- a. It has fixed eyeballs which cannot move in their sockets
- b. It is near-sighted
- c. Its feathers obstruct its field of view

3) Owls can rotate their necks

- a. 270 degrees
- b. 360 degrees
- c. Zero, their necks are fixed into position

4) If an owl eats a mouse, then its pellet would consist of

- a. meat and blood
- b. hair and bones
- c. wastes from the cloaca

5) The ears of an owl are

- a. asymmetrical
- b. symmetrical
- c. located as tufts of feathers on the tops of their heads

## ROCKETS

- 1) Who was the first scientist to formally describe the Laws of Motion?
  - a. Isaac Newton
  - b. Albert Einstein
  - c. Charles Darwin
  
- 2) What do we call the tendency of an object to remain at rest?
  - a. Acceleration
  - b. Inertia
  - c. Speed
  
- 3) Which law of motion states that for every action, there is an equal and opposite reaction?
  - a. 1<sup>st</sup>
  - b. 2<sup>nd</sup>
  - c. 3<sup>rd</sup>
  
- 4) If one bullet is dropped from a given height and another is fired from a gun horizontally from the same height, which bullet will hit the ground first?
  - a. The one that is dropped will hit first
  - b. The one fired will hit first
  - c. They will both hit the ground at the same time
  
- 5) A rocket is fired with 40 pounds of air pressure and it goes 100 feet. How high will it go if the air pressure remains the same, but the weight is doubled?
  - a. 200 feet
  - b. 75 feet
  - c. 50 feet

## SIMPLE MACHINES

- 1) A wheel barrow is an example of what kind of lever?
  - a. 1<sup>st</sup> class
  - b. 2nd class
  - c. 3rd class
- 2) A grooved wheel and rope is called what kind of system?
  - a. axle
  - b. gear
  - c. pulley
- 3) What is the pivot point of a lever called?
  - a. fulcrum
  - b. center
  - c. pressure point
- 4) Who is credited with an invention where an inclined plane is wrapped around a cylinder to form a screw?
  - a. Archimedes
  - b. Newton
  - c. Keplar
- 5) Two inclined planes that are placed "back to back" form what?
  - a. ramp
  - b. wedge
  - c. screw

## WILDLIFE

- 1) Snakes that squeeze their prey by coiling around it are called what?
  - a. compressors
  - b. constrictors
  - c. confiners
  
- 2) What country has the greatest diversity of life on the earth?
  - a. United States of America
  - b. China
  - c. Brazil
  
- 3) What location is considered to be the salamander capital of the world?
  - a. Costa Rica
  - b. Yellowstone Park
  - c. The Great Smoky Mountains
  
- 4) What does a red fox have that a grey fox cannot have?
  - a. the ability to climb a tree
  - b. a white tip on the end of its tail
  - c. a red color
  
- 5) Which of the following does a female Eastern Box turtle have that a male does not?
  - a. concave plastron
  - b. yellow eyes
  - c. carapace

## PHYSICS

- 1) Waves are best defined as the transfer of
  - a. energy from one atom to another
  - b. matter from one atom to another
  - c. molecules from one substance to another
- 2) The word Laser is an acronym for
  - a. light admitting serious electron reduction
  - b. light amplification by stimulated emission of radiation
  - c. light adding synchronization to electron reduction
- 3) Light travels in packets of energy called
  - a. neutrons
  - b. protons
  - c. photons
- 4) Electromagnetic waves
  - a. must have a medium such as air or water
  - b. travel at the speed of sound
  - c. do not need a medium
- 5) FM radio stands for
  - a. frequency modulation
  - b. formatted magnetically
  - c. free molecules

## GPS

- 1) What do the letters GPS stand for?
  - a. galvanized planetary synchronization
  - b. global positioning system
  - c. global posting stations
- 2) The GPS system was developed by which branch of the military
  - a. Navy
  - b. Air Force
  - c. Army
- 3) For the GPS receiver to work, it must lock on to at least how many satellites?
  - a. one
  - b. two
  - c. three
- 4) The GPS unit can also find what?
  - a. elevation
  - b. radio stations
  - c. current weather conditions
- 5) The GPS has what type of internal clock?
  - a. Timex
  - b. adjustable, must be manually set
  - c. atomic

## SOLAR SYSTEM

- 1) How far is the earth from the sun?
  - a. 83,000,000 miles
  - b. 93,000,000 miles
  - c. 103,000,000 miles
- 2) What is the process that fuels the sun?
  - a. nuclear fusion
  - b. nuclear fission
  - c. nuclear diffusion
- 3) The solar system formed from a cloud of gas and dust called what?
  - a. star
  - b. galaxy
  - c. nebula
- 4) How many rocky planets are there?
  - a. one
  - b. four
  - c. eight
- 5) What two planets does the asteroid belt lie between?
  - a. Earth and Mars
  - b. Mars and Jupiter
  - c. Jupiter and Saturn



## FOSSILS

- 1) How old does something have to be to be considered a fossil?
  - a. 10,000 years old
  - b. 100,000 years old
  - c. 1,000,000 years old
- 2) Name an organism that is extinct other than the dinosaur.
  - a. Horseshoe crab
  - b. Muskoxen
  - c. Trilobite
- 3) What was the time period that the woolly mammoth lived in?
  - a. Pleistocene
  - b. Triassic
  - c. Jurassic
- 4) What type of rock do you find fossils in?
  - a. sedimentary
  - b. metamorphic
  - c. Igneous
- 5) What characteristic shape is associated with a meat eater's teeth?
  - a. smooth and rounded
  - b. smooth and sharp
  - c. rough and rounded