**Level 1 - 100**

1. Na is the chemical symbol for which element?
2. Nitrogen
3. Sodium
4. Sulfur
5. Neptunium

50/50: a, c

Poll the Lab:

1. Nitrogen 0%
2. Sodium 100%
3. Sulfur 0%
4. Neptunium 0%

Ask An Expert:

Dr. Anderson states:

“Natrium, the Latin name for sodium carbonate.”

1. In terms of electricity, what does DC stand for (that flows in one direction)?
2. Direct Current
3. District of Columbia
4. Delta Connection
5. Dielectric Current

50/50: a, b

Poll the Lab:

1. Direct Current 100%
2. District of Columbia 0%
3. Delta Connection 0%
4. Dielectric Current 0%

Ask An Expert:

Dr. Anderson states:

“I believe in terms of electricity DC stands for Direct Current.”

1. What’s Earth primary source of energy?
2. Salt
3. Water
4. Sun
5. Light

50/50: a, c

Poll the Lab:

1. Salt 0%
2. Water 0%
3. Sun 100%
4. Light 0%

Ask An Expert:

Dr Anderson states:

“The Sun emits light and heat onto the Earth.”

**Level 2 - 200**

1. In terms of computing, what does CPU stand for?
2. Compiling Procedure Union
3. Central Pervasive Union
4. Computer Processing Unit
5. Central Processing Unit

50/50: c, d

Poll the Lab:

1. Compiling Procedure Union 0%
2. Central Pervasive Union 0%
3. Computer Processing Unit 17%
4. Central Processing Unit 83%

Ask An Expert:

Dr Anderson states:

“CPU stands for central processing unit and is the main core of a computer where every command runs through and is routed to its appropriate location.”

1. Earth is located in which galaxy?
2. Milky Way
3. Solar System
4. Omega Centauri
5. Virgo Stellar Stream

50/50: a, c

Poll the Lab:

1. Milky Way 95%
2. Solar System 0%
3. Omega Centauri 4%
4. Virgo Stellar Stream 1%

Ask An Expert:

Dr Anderson states:

“Earth is located in one of the spiral arms of the Milky Way (called the Orion Arm) which lies about two-thirds of the way out from the center of the Galaxy.”

1. How many pairs of wings does a bee have?
2. 4
3. 1
4. 2
5. 3

50/50: c, b

Poll the Lab:

1. 4 0%
2. 1 10%
3. 2 80%
4. 3 0%

Ask An Expert:

Dr Anderson states:

“Most other insects have two pairs of wings. This is called warning coloration, because predators avoid them, thinking they can sting. However, flies do not have a stinger.”

Level 3 - 300

1. What are female elephants called?
2. Elephants
3. Cows
4. Bulls
5. Calves

50/50: b,c

Poll the Lab:

1. Elephants 0%
2. Cows 85%
3. Bulls 15%
4. Calves 0%

Ask An Expert:

Dr Anderson states:

“Elephants are the largest land animals. Elephants are very social animals and live in family groups referred to as "herds". Female elephants are also called cows and males are called bulls.”

1. What orbits the nucleus of an atom?
2. Shells
3. Protons
4. Electrons
5. Protons and neutrons

50/50: c, d

Poll the Lab:

1. Shells 5%
2. Protons 1%
3. Electrons 81%
4. Protons and neutrons 13%

Ask An Expert:

Dr Anderson states:

While the nucleus in the atom contains protons and neutrons, very light electrons orbit around the nucleus using an electromagnetic force.

1. What is the name of the process used by plants to convert sunlight into food?
   1. Photosynthesis
   2. Chlorophyll
   3. Glucose
   4. Cellular respiration

50/50: a, d

Poll the Lab:

1. Photosynthesis 72%
2. Chlorophyll 4%
3. Glucose 4%
4. Cellular respiration 20%

Ask An Expert:

Dr Anderson states:

“The process begins when sunlight is absorbed by specific proteins containing chlorophyll. The food itself comes from carbon dioxide, but the sunlight provides the energy needed to create certain necessary chemical reactions. The carbon dioxide is broken down into a type of sugar and oxygen is emitted as a waste product. Without this vital process, animals like us would not have enough oxygen in our atmosphere to breath. Photosynthesis is basically the opposite of the cellular respiration process that animals use. We give off carbon dioxide as a waste product instead of the oxygen that plants give off.”

Level 4 - 500

1. Can frogs live in salt water?
2. Yes
3. Only in June to September
4. No
5. Only when they are hibernating

50/50: a, b

Poll the Lab:

1. Yes 79%
2. Only in June to September 3%
3. No 19%
4. Only when they are hibernating 0%

Ask An Expert:

Dr Anderson states:

Crab-eating frogs have special skin which stops them from drying out in salt water and allows them to survive in these environments. They are also able to absorb urea from their bladder too (humans can't do this) which helps them to not dry out too.

1. \_\_\_\_\_\_\_ is an example of a conductor.
2. Silver
3. Wool
4. Glass
5. Pure water

50/50: a, d

Poll the Lab:

1. Silver 86%
2. Wool 2%
3. Glass 3%
4. Pure water 9%

Ask An Expert:

Dr Anderson states:

A heavy, silvery d-block element, mercury is the only metallic element that is liquid at standard conditions for temperature and pressure; the only other element that is liquid under these conditions is bromine, though metals such as caesium, gallium, and rubidium melt just above room temperature.

1. What is the third planet from the Sun?
2. Mars
3. Earth
4. Venus
5. Mercury

50/50: a, b

Poll the Lab:

1. Mars 19%
2. Earth 80%
3. Venus 0%
4. Mercury 1%

Ask An Expert:

Dr Anderson states:

Earth, also known as the world, Terra, or Gaia, is the third planet from the Sun, the densest planet in the Solar System, the largest of the Solar System's four terrestrial planets, and the only celestial body known to accommodate life.

Level 5 – 1K

1. The mass of the earth is made up mostly of which two elements?
2. Carbon and Hydrogen
3. Oxygen and Hydrogen
4. Carbon Dioxide and Oxygen
5. Iron and Oxygen

50/50: b, d

Poll the Lab:

1. Carbon and Hydrogen 8%
2. Oxygen and Hydrogen 13%
3. Carbon Dioxide and Oxygen 9%
4. Iron and Oxygen 70%

Ask An Expert:

Dr Anderson states:

The vast majority of the Earth's supply of iron is found in the core and the mantle. The solid inner core is almost entirely composed of iron, while the liquid outer core is an alloy of iron and nickel, with small amounts of lighter elements.

Oxygen, the second most abundant element on Earth, is found mainly in the crust. Although oxygen is most often thought of as an atmospheric gas, it is also one of the primary components of the silicate minerals that make up the vast majority of the Earth's crust.

1. The most recognized model of how the universe began is \_\_\_\_\_\_\_\_\_\_.
   1. Adam and Eve
   2. Big Bang Theory
   3. String Theory
   4. There is more than one model

50/50: b, c

Poll the Lab:

1. Adam and Eve 5%
2. Big Bang Theory 64%
3. String Theory 23%
4. There is more than one model 13%

Ask An Expert:

Dr Anderson states:

The key idea is that the universe is [expanding](http://en.wikipedia.org/wiki/Metric_expansion_of_space). Consequently, the universe was denser and hotter in the past. Moreover, the model suggests that at some moment all matter in the universe was contained in a single point, which is considered the beginning of the universe.

1. At room temperature, what is the only metal that is in liquid form?
2. Boron
3. Mercury
4. Rubidium
5. Potassium

50/50: b, c

Poll the Lab:

1. Boron 3%
2. Mercury 77%
3. Rubidium 17%
4. Potassium 3%

Ask An Expert:

Dr Anderson states:

A heavy, silvery d-block element, mercury is the only metallic element that is liquid at standard conditions for temperature and pressure; the only other element that is liquid under these conditions is bromine, though metals such as caesium, gallium, and rubidium melt just above room temperature.

1. Electric power is typically measured in what units?
2. Horsepower (hp)
3. Cheval vapeur (CV)
4. Watts (W)
5. Ergs per second (erg/s)

50/50: a, c

Poll the Lab:

1. Horsepower (hp) 15%
2. Cheval vapeur (CV) 5%
3. Watts (W) 54%
4. Ergs per second (erg/s) 26%

Ask An Expert:

Dr Anderson states:

In particular, for electrical power we use the "Watt" (named after the scientist James Watt):

* 1 Watt = 1 Joule / Second. It is important not to confuse power and energy, although they are closely related. ...
* 1 kilo-watt hour = the energy delivered by 1000 watts of power over a one hour time period.

Level 6 – 2K

1. What is the temperature of absolute zero?
   1. -20oC
   2. 0 Kelvin
   3. 100 Kelvins
   4. 0oF

50/50: b, d

Poll the Lab:

* 1. -20oC 1%
  2. 0 Kelvin 49%
  3. 100 Kelvins 38%
  4. 0oF 12%

Ask An Expert:

Dr Anderson states:

Absolute zero is the lowest possible temperature where nothing could be colder and no heat energy remains in a substance.

Absolute zero is the point at which the fundamental particles of nature have minimal vibrational motion, retaining only quantum mechanical, zero-point energy-induced particle motion.

1. What do you call molten rock before it has erupted?
   1. Lava
   2. Sentiment
   3. Magma
   4. Metaphoric rock

50/50: a, c

Poll the Lab:

* 1. Lava 22%
  2. Sentiment 2%
  3. Magma 56%
  4. Metaphoric rock 20%

Ask An Expert:

Dr Anderson states:

Lava is the [molten](http://en.wikipedia.org/wiki/Molten) [rock](http://en.wikipedia.org/wiki/Rock_(geology)) expelled by a [volcano](http://en.wikipedia.org/wiki/Volcano) during an eruption and the resulting rock after solidification and cooling. Besides molten rock, magma may also contain suspended crystals, dissolved gas and sometimes gas bubbles. Magma often collects in [magma chambers](http://en.wikipedia.org/wiki/Magma_chamber) that may feed a [volcano](http://en.wikipedia.org/wiki/Volcano) or turn into a [pluton](http://en.wikipedia.org/wiki/Pluton). Magma is capable of intrusion into adjacent rocks (forming [igneous](http://en.wikipedia.org/wiki/Igneous_rock) [dikes](http://en.wikipedia.org/wiki/Dike_(geology)) and [sills](http://en.wikipedia.org/wiki/Sill_(geology))), extrusion onto the surface as [lava](http://en.wikipedia.org/wiki/Lava), and explosive ejection as [tephra](http://en.wikipedia.org/wiki/Tephra) to form[pyroclastic rock](http://en.wikipedia.org/wiki/Pyroclastic_rock).

1. Dinosaur means \_\_\_\_\_\_.
   1. “terrible lizard”
   2. “giant beast”
   3. “vicious monster”
   4. “giant reptile”

50/50: a, b

Poll the Lab:

* 1. “terrible lizard” 55%
  2. “giant beast” 29%
  3. “vicious monster” 2%
  4. “giant reptile” 14%

Ask An Expert:

Dr Anderson states:

The word dinosaur comes from the ancient Greek words deinos ("fearfully great", as in awe-inspiring) and sauros(a lizard). The name was invented in 1842 by Richard Owen, who knew they were not lizards, but thought that they may have been derived from them. Owen used the term deinos as a superlative.

Level 7 – 4K

1. The Great Barrier Reef is found off the coast of which country?
   1. Italy
   2. India
   3. South America
   4. Australia

50/50: b, d

Poll the Lab:

1. Italy 28%
2. India 32%
3. South America 4%
4. Australia 36%

Ask An Expert:

Dr Anderson states:

The Great Barrier Reef is a mosaic of 2,900 individual reefs off the coast of Queensland in northeast Australia. The sprawling reef can be seen from space and is not only the world's largest coral reef system but also the largest structure on Earth made by living organisms.

1. What kind of eclipse do we have when the moon is between the sun and the earth?
   1. Lunar Eclipse
   2. Rare Total Penumbral Eclipse
   3. Solar Eclipse
   4. Selenelion Phenomena

50/50: a, c

Poll the Lab:

1. Lunar Eclipse 38%
2. Rare Total Penumbral Eclipse 0%
3. Solar Eclipse 54%
4. Selenelion Phenomena 8%

Ask An Expert:

Dr Anderson states:

A "lunar eclipse" and a "solar eclipse" refer to events involving three celestial bodies: the Sun, the moon, and the Earth. A lunar eclipse occurs when the Earth passes between the Moon and the Sun, and the Earth's shadow obscures the moon or a portion of it. A solar eclipse occurs when the Moon passes between the Earth and the Sun, blocking all or a portion of the Sun.

1. Electric air resistance is typically measured in what units?
   1. Ohms
   2. Resistance
   3. Amps
   4. Volts

50/50: a, c

Poll the Lab:

1. Ohms 67%
2. Resistance 3%
3. Amps 10%
4. Volts 20%

Ask An Expert:

Dr Anderson states:

The electrical resistance of an [electrical conductor](http://en.wikipedia.org/wiki/Electrical_conductor) is the opposition to the passage of an [electric current](http://en.wikipedia.org/wiki/Electric_current) through that conductor. The inverse quantity is electrical conductance, the ease with which an electric current passes. Electrical resistance shares some conceptual parallels with the mechanical notion of [friction](http://en.wikipedia.org/wiki/Friction). The [SI](http://en.wikipedia.org/wiki/International_System_of_Units) unit of electrical resistance is the [ohm](http://en.wikipedia.org/wiki/Ohm) ([Ω](http://en.wikipedia.org/wiki/Omega)). R = V/I

Level 8 – 8K

1. The Galilean moon orbits around which planet?
   1. Mercury
   2. Uranus
   3. Jupiter
   4. Neptune

50/50: b, c

Poll the Lab:

1. Mercury 0%
2. Uranus 28%
3. Jupiter 45%
4. Neptune 27%

Ask An Expert:

Dr Anderson states:

The Galilean moons was discovered by [Galileo Galilei](http://en.wikipedia.org/wiki/Galileo_Galilei) around January 1610. They derive their names from the lovers of [Zeus](http://en.wikipedia.org/wiki/Zeus): [*Io*](http://en.wikipedia.org/wiki/Io_(mythology)), *[Europa](http://en.wikipedia.org/wiki/Europa_(mythology)" \o "Europa (mythology))*,*[Ganymede](http://en.wikipedia.org/wiki/Ganymede_(mythology)" \o "Ganymede (mythology))*, and *[Callisto](http://en.wikipedia.org/wiki/Callisto_(mythology)" \o "Callisto (mythology))*. They are among [the most massive objects](http://en.wikipedia.org/wiki/List_of_moons_by_diameter) in the [Solar System](http://en.wikipedia.org/wiki/Solar_System) outside the [Sun](http://en.wikipedia.org/wiki/Sun) and the eight [planets](http://en.wikipedia.org/wiki/Planet), with radii larger than any of the [dwarf planets](http://en.wikipedia.org/wiki/Dwarf_planet).

1. What is the name given to substances that are originally involved in the chemical reaction?
   1. Products
   2. Yields
   3. You have to know what the substances are first
   4. Reactants

50/50: c, d

Poll the Lab:

1. Products 39%
2. Yields 2%
3. You have to know what the substances are first 15%
4. Reactants 44%

Ask An Expert:

Dr Anderson states:

Chemical reactions describe the changes between reactants and products. In a balanced chemical reaction all of the [matter](http://science.jrank.org/pages/4183/Matter.html) (i.e., atoms or molecules) that enter into a reaction must be accounted for in the products of a reaction. Accordingly, associated with the symbols for the reactants and products are numbers (stoichiometry coefficients) that represent the number of molecules, formula units, or moles of a particular reactant or product.

1. A change of the DNA in an organism that results in a new trait is known as a \_\_\_\_\_\_\_.
   1. GMOs
   2. Mutation
   3. Cytokinesis
   4. Genome and exome sequencing

50/50: b, d

Poll the Lab:

1. GMOs 29%
2. Mutation 46%
3. Cytokinesis 6%
4. Genome and exome sequencing 19%

Ask An Expert:

Dr Anderson states:

DNA is a dynamic and adaptable molecule. Since our DNA codes for who we are, if there is a change in it, that change can hurt us by preventing us from coding for our proteins properly.  You already know that a problem in a particular gene can cause a genetic disease (like muscular dystrophy).  Another example can be found in some types of cancers-- where a cell becomes cancerous after a mutation in a cell-cycle-controlling gene.

Level 9 – 16K

1. What is the fourth most abundant element in the universe in terms of mass?
   1. Nitrogen
   2. Carbon
   3. Oxygen
   4. Hydrogen

50/50: a, b

Poll the Lab:

1. Nitrogen 20%
2. Carbon 64%
3. Oxygen 16%
4. Hydrogen 0%

Ask An Expert:

Dr Anderson states:

“In the Universe, Hydrogen is 739,000 in parts per million; Helium is 240000; Oxygen is 10400; Carbon is 4600.”

1. How long has the crocodile species believed to have been around for how long?
   1. 20 million years
   2. 20 000 years
   3. 200 million years
   4. 200 years

50/50: b, c

Poll the Lab:

1. 20 million years 17%
2. 20 000 years 34%
3. 200 million years 43%
4. 200 years 6%

Ask An Expert:

Dr Anderson states:

Crocodiles have outlived the dinosaurs by some 65 million years. Even humans, the most fearsome predators ever to stalk the Earth, have failed to force into extinction any of the 23 species of crocodilians.

1. What is the brightest planet in the night sky?
   1. Venus
   2. Mercury
   3. North Star
   4. Saturn

50/50: a, b

Poll the Lab:

1. Venus 62%
2. Mercury 14%
3. North Star 3%
4. Saturn 21%

Ask An Expert:

Dr Anderson states:

Venus can often be seen within a few hours after sunset or before sunrise as the brightest object in the sky (other than the moon). It looks like a very bright star. Venus is the brightest planet in the Solar System.

Level 10 – 32K

1. The outside layer of skin on the human body is called the \_\_\_\_\_\_\_\_\_.
   1. Epithelium
   2. Subcutaneous
   3. Epidermis
   4. Basal lamina

50/50: b, c

Poll the Lab:

1. Epithelium 30%
2. Subcutaneous 25%
3. Epidermis 45%
4. Basal lamina 0%

Ask An Expert:

Dr Anderson states:

The outer layer forms the waterproof, protective wrap over the body's surface and is made up of stratified squamous [epithelium](http://en.wikipedia.org/wiki/Epithelium) with an underlying [basal lamina](http://en.wikipedia.org/wiki/Basal_lamina).

1. An example of a multivalent is \_\_\_\_\_\_\_\_\_.
   1. Silver
   2. Zinc
   3. Iron
   4. Neon

50/50: a, c

Poll the Lab:

1. Silver 30%
2. Zinc 18%
3. Iron 43%
4. Neon 9%

Ask An Expert:

Dr Anderson states:

*Polyvalence* or *multivalence* refers to [species](http://en.wikipedia.org/wiki/Chemical_species) that are not restricted to a distinct number of valence [bonds](http://en.wikipedia.org/wiki/Chemical_bond).

1. In physics, a(n) \_\_\_\_\_\_\_\_\_\_\_ is a wave that remains in a constant position.
   1. Standing wave
   2. Stationary medium
   3. Interference
   4. Mechanical wave

50/50: a, d

Poll the Lab:

1. Standing wave 54%
2. Stationary medium 18%
3. Interference 6%
4. Mechanical wave 22%

Ask An Expert:

Dr Anderson states:

This phenomenon can occur because the medium is moving in the opposite direction to the wave, or it can arise in a stationary medium as a result of  interference between two waves traveling in opposite directions. In the second case, for waves of equal amplitude traveling in opposing directions, there is on average no net propagation of energy.

Level 11 – 64K

1. Atoms of the same chemical element that have different atomic mass are known as?
   1. Ions
   2. Atoms
   3. Isotopes
   4. Moles

50/50: a, c

Poll the Lab:

1. Ions 36%
2. Atoms 13%
3. Isotopes 41%
4. Moles 10%

Ask An Expert:

Dr Anderson states: \*\*\*\*

1. In computing, what does ROM stand for?
   1. Random Only Memory
   2. Royal Ontario Museum
   3. Read Only Memory
   4. Rivers of MUD

50/50: a, c

Poll the Lab:

1. Random Only Memory 31%
2. Royal Ontario Museum 14%
3. Read Only Memory 38%
4. Rivers of MUD 17%

Ask An Expert:

Dr Anderson states:

 Although ROM also permits random data access, data stored in ROM cannot be changed or modified. Instead, the data can only be read or displayed.

1. What is the name of a place that uses telescopes and other scientific equipment to research space and astronomy?
   1. Laboratory
   2. Observatory
   3. Planetarium
   4. Astronomy facility

50/50: b, c

Poll the Lab:

1. Laboratory 20%
2. Observatory 40%
3. Planetarium 25%
4. Astronomy facility 15%

Ask An Expert:

Dr Anderson states:

Most [optical telescopes](http://en.wikipedia.org/wiki/Optical_telescope) are housed within a [dome](http://en.wikipedia.org/wiki/Dome) or similar structure, to protect the delicate instruments from the elements. Telescope domes have a slit or other opening in the roof that can be opened during observing, and closed when the telescope is not in use. In most cases, the entire upper portion of the telescope dome can be rotated to allow the instrument to observe different sections of the night sky. Radio telescopes usually do not have domes.

Level 12 – 125K

1. The scientific name of the shape of DNA is known as \_\_\_\_\_\_\_\_\_.
   1. Chromosome
   2. Adenine
   3. Double helix
   4. Twisted ladder

50/50: a, c

Poll the Lab:

1. Chromosome 37%
2. Adenine 3%
3. Double helix 53%
4. Twisted ladder 7%

Ask An Expert:

Dr Anderson states:

The most common DNA shape illustrated by artists and scientist looks a lot like a twisting ladder that scientist call a double helix.  DNA also folds and coils itself into more complex shapes. The coiled shape makes it very small. In fact, it is small enough to easily fit inside any of our cells. A pretty amazing feat when you find out that our own DNA, if unfolded, would stretch out to a length of six feet.

1. What is the longest river on Earth?
   1. Amazon River
   2. Nile River
   3. Mississippi River
   4. Yangtze River

50/50: b, c

Poll the Lab:

1. Amazon River 35%
2. Nile River 43%
3. Mississippi River 21%
4. Yangtze River 1%

Ask An Expert:

Dr Anderson states:

The Nile River is 6,650 km long and drains an area of 3,349,000 square km. The Amazon drains an much larger area and is 250 km.

1. Electric current is measured using what device?
   1. Ohmmeter
   2. Ammeter
   3. Coulomb
   4. Ampere

50/50: b, d

Poll the Lab:

1. Ohmmeter 17%
2. Ammeter 46%
3. Coulomb 7%
4. Ampere 30%

Ask An Expert:

Dr Anderson states:

An electric current is a flow of [electric charge](http://en.wikipedia.org/wiki/Electric_charge). In electric circuits this charge is often carried by moving [electrons](http://en.wikipedia.org/wiki/Electron) in a [wire](http://en.wikipedia.org/wiki/Wire). It can also be carried by [ions](http://en.wikipedia.org/wiki/Ion) in an [electrolyte](http://en.wikipedia.org/wiki/Electrolyte#Electrochemistry), or by both ions and electrons such as in a [plasma](http://en.wikipedia.org/wiki/Plasma_(physics)).

Level 13 – 250K

1. Over a long period of time while under extreme heat and pressure, graphite turns into precious mineral?
   1. Coal
   2. Crystal
   3. Swarovski
   4. Diamond

50/50: b, d

Poll the Lab:

1. Coal 28%
2. Crystal 28%
3. Swarovski 9%
4. Diamond 35%

Ask An Expert:

Dr Anderson states:

Graphite, the gray-black, soft, greasy “lead” used in pencils.

1. At what temperature is Fahrenheit equal to Centigrade?
   1. -20oC
   2. 10oC
   3. -30oC
   4. -40oC

50/50: a, d

Poll the Lab:

1. -20oC 36%
2. 10oC 14%
3. -30oC 14%
4. -40oC 36%

Ask An Expert:

Dr Anderson states:

Using trial and error, the °F = (°C x 1.8) + 32 equation can help find the answer.

1. What is the most recognizable feature of a hedgehog’s appearance?
   1. Balling up
   2. Forehead furrow
   3. Spines of spiky hair
   4. Short, pouty snout

50/50: c, d

Poll the Lab:

1. Balling up 24%
2. Forehead furrow 20%
3. Spines of spiky hair 31%
4. Short, pouty snout 25%

Ask An Expert:

Dr Anderson states:

A hedgehog is any of the spiny [mammals](http://en.wikipedia.org/wiki/Mammal) of the[subfamily](http://en.wikipedia.org/wiki/Subfamily) Erinaceinae, which is in [order](http://en.wikipedia.org/wiki/Order_(biology)) [Erinaceomorpha](http://en.wikipedia.org/wiki/Erinaceomorpha).

Level 14 – 500K

1. What is the name of NASA’s most famous space telescope?
   1. Spitzer Space Telescope
   2. Hubble Space Telescope
   3. James Webb Space Telescope
   4. James West Space Telescope

50/50: b, c

Poll the Lab:

1. Spitzer Space Telescope 18%
2. Hubble Space Telescope 26%
3. James Webb Space Telescope 23%
4. James West Space Telescope 33%

Ask An Expert:

Dr Anderson states:

The James Webb Space Telescope (JWST) is the successor to the Hubble Space Telescope, and it will be almost three times the size of Hubble. JWST has been designed to work best at infrared wavelengths.

1. In terms of astronomy, what does NASA stand for?
   1. National Astronomic and Space Administration
   2. North American Space Administration
   3. National Aeronautics and Space Administration
   4. North Atlantic Space Administration

50/50: b, c

Poll the Lab:

1. National Astronomic and Space Administration 20%
2. North American Space Administration 37%
3. National Aeronautics and Space Administration 29%
4. North Atlantic Space Administration 14%

Ask An Expert:

Dr Anderson states:

(NASA) is the [United States government](http://en.wikipedia.org/wiki/Federal_government_of_the_United_States) agency that is responsible for the civilian [space program](http://en.wikipedia.org/wiki/List_of_space_agencies) as well as for [aeronautics](http://en.wikipedia.org/wiki/Aeronautics) and[aerospace](http://en.wikipedia.org/wiki/Aerospace) research.

1. What is the study of fungi specifically is called?
   1. Fungology
   2. Mycology
   3. Botany
   4. Biology

50/50: b, c

Poll the Lab:

1. Fungology 26%
2. Mycology 31%
3. Botany 31%
4. Biology 12%

Ask An Expert:

Dr Anderson states:

Botany, also called plant science(s) orplant biology, is the science of [plant](http://en.wikipedia.org/wiki/Plant) life and a branch of [biology](http://en.wikipedia.org/wiki/Biology). A botanist orplant scientist is a [scientist](http://en.wikipedia.org/wiki/Scientist) who specializes in this field of study.

Level 15 – 1M

1. What is the colored part of the human eye that controls how much light passes through the pupil is called?
   1. Cornea
   2. Retina
   3. Iris
   4. Lens

50/50: a, c

Poll the Lab:

1. Cornea 23%
2. Retina 35%
3. Iris 28%
4. Lens 14%

Ask An Expert:

Dr Anderson states:

Light is focused primarily by the cornea — the clear front surface of the eye, which acts like a camera lens.

The iris of the eye functions like the diaphragm of a camera, controlling the amount of light reaching the back of the eye by automatically adjusting the size of the pupil (aperture).

The eye's crystalline lens is located directly behind the pupil and further focuses light. Through a process called accommodation, this lens helps the eye automatically focus on near and approaching objects, like an autofocus camera lens.

1. Which country was theoretical physicist James Maxwell was born in?
   1. Ireland
   2. England
   3. Russia
   4. Scotland

50/50: b, d

Poll the Lab:

1. Ireland 16%
2. England 35%
3. Russia 20%
4. Scotland 29%

Ask An Expert:

Dr Anderson states:

James Clerk Maxwell was born on June 13, 1831 and died on November 5, 1879 in Edinburgh. He was a [mathematical physicist](http://en.wikipedia.org/wiki/Mathematical_physics). His most notable achievement was to formulate the classical theory of [electromagnetic radiation](http://en.wikipedia.org/wiki/Electromagnetic_radiation), bringing together for the first time electricity, [magnetism](http://en.wikipedia.org/wiki/Magnetism), and light as manifestations of the same phenomenon.

1. Nimbus, cumulus and stratus are types of what?
   1. Air currents
   2. Clouds
   3. Atmospheres
   4. Storms

50/50: b, d

Poll the Lab:

1. Air currents 22%
2. Clouds 32%
3. Atmospheres 33%
4. Storms 13%

Ask An Expert:

Dr Anderson states:

Cumulonimbus, from the [Latin](http://en.wikipedia.org/wiki/Latin) cumulus ("heap") and nimbus ("rainstorm", "storm cloud"), is associated with [thunderstorms](http://en.wikipedia.org/wiki/Thunderstorm) and [atmospheric instability](http://en.wikipedia.org/wiki/Atmospheric_instability), forming from water vapor carried by powerful upward air currents.

Notes

* When the person loses, loop ends
* Option to play again
* Option to walk away with their money
* <http://www.sciencekids.co.nz/quizzes.html>

questions:

* Heat from the sun gets to the Earth by radiation, conduction or convention? H
* What is the largest type of ‘big cat’ in the world?