Tossup

1. *General Science* Short Answer: How many Nobel prizes that apply to science are awarded each year?

Answer: 3

Bonus

1. *General Science* Short Answer: Who received the first Nobel prize in chemistry?

Answer: Jacobus H. van’t Hoff



Tossup

1. *Biology* Short Answer: What phylum do homosapiens belong to?

Answer: Chordata

Bonus

1. *Biology* Short Answer: Name the eight major taxonomic ranks in biological classification in order from most specific to least specific.

Answer: Species, genus, family, order, class, phylum, kingdom, domain.



Tossup

1. *Physics* Multiple Choice: Which of the following is not a simple machine?
   1. Lever
2. Inclined Wedge
3. Wedge
4. hammer

Answer: z) hammer

Bonus

1. *Physics* Short Answer: Scientists from what era named the simple machines?

Answer: Renaissance

Tossup

1. *General Science* Short Answer: What is used as a replacement for mercury in thermometers?

Answer:Alcohol

Bonus

1. *General Science* Short Answer: What is absolute zero on the Rankine scale?

Answer: 0



Tossup

1. *Chemistry* Short Answer: Give the classical name for tin (IV)

Answer: stannic

Bonus

1. *Chemistry* Short Answer: What color does phenolphthalein become in the presence of a base?

Answer: pink (magenta and purple is acceptable)



Tossup

1. *General Science* Multiple Choice: What is a stem cell?
   1. A cell located in the spinal cord
   2. An intrusive cell
   3. A cell that can infinitely replicate
   4. A cell that is not properly performing its function

Answer: y) a cell that can infinitely replicate

Bonus

1. *General Science* Short Answer: What makes up about 78% of the earth’s “dry air?”

Answer: nitrogen

Tossup

1. *Earth Science* Short Answer: Where is the ozone located?

Answer: The stratosphere

Bonus

1. *Earth Science* Short Answer: On what scale is Feldspar 6?

Answer: Mohs scale of mineral hardness



Tossup

1. *Math* Short Answer: What is the definition of *i*

Answer: The square root of -1

Bonus

1. *Math* Short Answer: Name the following sequence: 1, 1, 2, 3, 5, 8, 13, 21, 34

Answer: Fibonacci sequence



Tossup

1. *General Science* Multiple Choice: What are ultraviolet rays
   1. Gamma rays emitted from the sun
   2. tanning rays from the sun
   3. radiation emitted from uranium
   4. individual packets of light

Answer: y) a cell that can infinitely replicate

Bonus

1. *General Science* Short Answer: How far away is the earth from the sun?

Answer: 1.496 x 1011m

Tossup

1. *Biology* Short Answer: What even phase in mitosis comes before the anaphase

Answer: metaphase

Bonus

1. *Biology* Short Answer: What process occurs after mitosis

Answer: cytokinesis



Tossup

1. *Biology* Short Answer: From whom are your mitochondria inherited from?

Answer: Your mother

Bonus

1. *Biology* Short Answer: What gene causes Huntington’s disease?

Answer: Chromosome 4



Tossup

1. *Chemistry* Multiple Choice: Avogadro’s number is the number of atoms in a \_\_\_\_\_\_
2. A mol
3. water molecule
4. gram
5. mL

Answer: w) a mole

Bonus

1. *Chemistry* Short Answer: What is the formula for muriatic acid?

Answer: HCl

Tossup

1. *Physics* Short Answer: What is the speed of light?

Answer: 3.00 x 108 m/s

Bonus

1. *Physics* Short Answer: How many valence electrons are there in zinc?

Answer: 2



Tossup

1. *Earth Science* Short Answer: What is the chemical formula for quartz

Answer: SiO2

Bonus

1. *Earth Science* Short Answer: What is the name of magma after it reaches the earth’s surface?

Answer: lava



Tossup

1. *General Science* Multiple Choice: What weighs more, one mol of carbon or on mol of oxygen
   1. carbon
   2. oxygen
   3. they are the same
   4. it is impossible to tell

Answer: y) a cell that can infinitely replicate

Bonus

1. *General Science* Short Answer: Which is greater, the specific heat for water or the specific heat of ice?

Answer: water

Tossup

1. *Biology* Short Answer: How many bones does the human body have?

Answer: 206 (208 is acceptable)

Bonus

1. *Biology* Short Answer: What is a virus without a viral coat?

Answer: prion



Tossup

1. *Biology* Short Answer: How many chromosomes are in the human body?

Answer: 34

Bonus

1. *Biology* Short Answer: What extra chromosome do those with Down syndrome have?

Answer: An extra chromosome 21



Tossup

1. *Math* Multiple Choice: What is ln?
   1. The common log
   2. The natural log
   3. The infinitive log
   4. The imaginary log

Answer: x) natural log

Bonus

1. *Math* Short Answer: What is the derivative of 2a4

Answer: 8a3

Tossup

1. *General Science* Short Answer: Which is greater: 1 degree Kelvin, 1 degree Celsius, or 1 Degree Fahrenheit?

Answer: 1 degree Fahrenheit.

Bonus

1. *General Science* Short Answer: At what Celsius temperature does paper burn?

Answer: 233



Tossup

1. *Biology* Multiple Choice: What is the euthermia
   1. An muscle under the tounge
   2. The bone inside one’s arm
   3. The human body temperature
   4. The amount of energy stored in one ATP

Answer: y) the human body temperature

Bonus

1. *Biology* Short Answer: What is the basal body temperature

Answer: The lowest temperature a human reaches while sleeping