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### TOSS-UP

mutilite # # 'S PR Astitute the the " the PR 1) EARTH SCIENCE Multiple Choice Which of the following is a coastal morphology most characteristic of the west coast of the U.S.: mythute ## # '& R mutute # # '& R

W) numerous estuaries

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- X) depositional coast Y) extension
  - Y) extensive barrier islands

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Z) rocky coast with small spits and pocket beaches

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ANSWER: Z) ROCKY COAST WITH SMALL SPITS AND POCKET BEACHES 加加林塔塔

#### BONUS

multilitte # # 3 1) EARTH SCIENCE *Multiple Choice* Which of the following best describes how a sedimentary rock can form:

- X) slow cooling and hardening of magmaY) fast cooling and hardening
  - Z) high temperature and pressure causing recrystalization

ANSWER: W) COMPACTION AND CEMENTATION 的过去,我们们们们

**TOSS-UP** 

2) MATH *Short Answer* What is the degree measure of a semicircle?

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### **BONUS**

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2) MATH Short Answer How many degrees are in the 4<sup>th</sup> angle of a quadrilateral whose other 3 angles are 85°, 95°, and 100°? Astitute ## # 13 PK mittute ## # '& R matilute ## # 18 18 Millitle # # 13 PS

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Institute \$ 75 multille m # 3 Institute \$ 75 Institute \$ 75 multille \$ \* 3 mutall mark 's maxitute # \*\* TOSS-UP R 3) GENERAL SCIENCE Multiple Choice Which of the following does the prefix "ambi" (spell out the letters a, m, b, i) mean, as in the word ambidextrous: W) equal maximue ## # '& PL 面的机机就林塔像 面射机机器样後飛 而时间他都林塔梯 X) both 旧柳林飞船 Ro Z) always Y) neither ANSWER: X) BOTH BONUS 3) GENERAL SCIENCE *Short Answer* Arrange the following 4 choices from the one with the LOWEST mass to the HIGHEST mass: decigram: microgram. · 1/2 1/2 Ro ANSWER: MICROGRAM; CENTIGRAM; DECIGRAM; HECTOGRAM 而此此此称林塔梯 ititute # # 13 PK Ro **TOSS-UP** 4) LIFE SCIENCE Short Answer What is the most common term for the biological polymer found in chromosomes that stores genetic information? matine # # ' K stitute # # 'S PE Ro ANSWER: DNA (ACCEPT: DEOXYRIBONUCLEIC ACID) Taxitute # # BONUS 4) LIFE SCIENCE Short Answer Inside what human cell organelle does replication of the chromosomal DNA in preparation for mitosis occur? mutute # # 'S R multule ## # 'S R mythute ## # '& R ANSWER: NUCLEUS Attille to the the the N. maximue ## # '& R matitute ## # '\$ 1% mutute # # 'S R mutule ## # '& R mythte # # '& K 面射机机新林塔像 N. 而如此他教林塔梯 而如此他教林後然 maxitute ## # '& R 而时间很新林塔梯 stitute # # # B Antitute the the " the N. Middle School Round 3 Page 2 to the bit is the to the the 'S Ph to the the B. \*\*\* #\* # 13 % to the bear of the to the the of the

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Multule # # 'S 5) PHYSICAL SCIENCE Short Answer What is the mass, in grams to the nearest whole number, of one cubic centimeter of pure water at standard temperature and pressure?

TOSS-UP

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maxitute \$15 Kt 5) PHYSICAL SCIENCE *Short Answer* Name all of the following 3 choices that a physicist would consider to be simple machines: bicycle; lever; ramp

ANSWER: LEVER; RAMP multilite # # '\$

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# **TOSS-UP**

6) EARTH SCIENCE Multiple Choice The greatest geophysical impacts from the movement of Earth's lithospheric plates are most often seen and felt in which of the following areas: 面动机机器样等除 mininte # \*\*

- W) at the center of the plates X) at plate bounder

  - Y) evenly distributed throughout the entire plate
  - Z) along riverbeds within the plates

ANSWER: X) AT PLATE BOUNDARIES n.

### BONUS

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ANSWER: MANTLE

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#### TOSS-UP

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totitute the the 9) LIFE SCIENCE Short Answer What specific structure is most directly responsible for the motility of bacteria?

#### ANSWER: FLAGELLA (ACCEPT: FLAGELLUM)

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# BONUS

musitute ## # 9) LIFE SCIENCE Multiple Choice If an animal has 42 chromosomes in its normal, non-gamete or somatic cells, what term would be given to the gametes that have 21 chromosomes:

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W) somatic X) unigentic Y) haploid Z) solitary

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ANSWER: Y) HAPLOID

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musitute ## # 10) PHYSICAL SCIENCE Multiple Choice Which of the following BEST describes how the SI unit called the Newton is derived:

**TOSS-UP** 

W) the product of force times time

X) the energy in one kilogram traveling at one meter per second

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Y) the force needed to accelerate 1 kilogram at one meter per second squared

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Z) the power needed to accelerate 1 kilogram at one kilometer per hour

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ANSWER: Y) THE FORCE NEEDED TO ACCELERATE 1 KILOGRAM AT ONE METER PER SECOND SQUARED tinititte # 3

**BONUS** 

10) PHYSICAL SCIENCE Short Answer A car is traveling at a constant speed of 20 kilometers per hour on a long straight road. How many minutes will it take to travel a distance of 5 kilometers? Astitute # # 13 PR Astitute ## # 18 matitute ## # 'S PE 面站加坡新林塔梯

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Atitute # # 13 18 ANSWER: 15

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而此此此意味 TOSS-UP Y. 11) EARTH SCIENCE Multiple Choice The best evidence for the model of Earth's interior comes from the study of: W) seismology maritute # # '& PL maximue ## # '& P& multille ## # '\$ PE X) paleontology Z) glaciology Y) paleomagnetism ANSWER: W) SEISMOLOGY BONUS 1/3 1/2 11) EARTH SCIENCE *Multiple Choice* Which of the following is TRUE of the Richter Scale: Y. W) values are always given in whole numbers X) an earthquake measuring 5 has 50-times more energy than an earthquake measuring 4 Y) it is based on a scale of 0 to 14 Withthe ## # 18 R. Z) it is based on a logarithmic scale mstitute # ANSWER: Z) IT IS BASED ON A LOGARITHMIC SCALE **TOSS-UP** N. 1/2 Ph 80 12) MATH Short Answer In the real numbers, a number times its multiplicative inverse equals what? ANSWER: 1 Astitute ## # 'S N. BONUS 12) MATH Short Answer Find the elapsed time, in hours and minutes reduced to their lowest terms, between 12:15 AM and 5:05 PM: ANSWER: 16 HOURS 50 MINUTES Willing the the the Willing the the the the Astitute ## # 18 astitute ## # '# PR Withte the the 's the Antitute the the 's PE mutute # # 'S R Withite the the 's the Withte # # 3 PS Withte the the the stitute ## # B stitute # # '\$ PE Middle School Round 3 Page 6 to the the B to the the B to the the the the 10 the the 1/2 1/2 to the the the to the the the the R

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面对机能称并省除 13) GENERAL SCIENCE Short Answer What hard silvery-grey metal is the 9<sup>th</sup> most common element in the Earth's crust, has an atomic number of 22, and takes its name from the Titans?

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**TOSS-UP** 

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ANSWER: TITANIUM

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tinstitute ### 13) GENERAL SCIENCE *Short Answer* What state in the U.S. has the largest continuous system of mangroves in the world?

ANSWER: FLORIDA mutute # # '\$

**TOSS-UP** 

14) LIFE SCIENCE Short Answer What is the most common term for the symbiotic relationship where one organism benefits and the other is harmed? multille m # 3 PK multille # # 3 PS

ANSWER: PARASITISM

### BONUS

14) LIFE SCIENCE Short Answer What is the most common term for the type of symbiosis where one organism benefits and the other is neither significantly harmed nor helped by the interaction? mstitute ## 资本 加奶林

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Astitute ## # ANSWER: COMMENSALISM

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Autitute # \*\*\* 15) PHYSICAL SCIENCE *Multiple Choice* When using the periodic chart, what number gives the number of protons in a given element:

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W) period number

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- X) group number
- Y) atomic number

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Z) average atomic mass

ANSWER: Y) ATOMIC NUMBER

## BONUS

加加斯林塔幣 1/3 8/2 15) PHYSICAL SCIENCE *Multiple Choice* Which of the following is NOT true:

- W) compounds have atoms from more than one element
- X) atoms can bond together to make molecules
- Y) all helium atoms have one more proton than all hydrogen atoms

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Z) all oxygen molecules have 8 neutrons

ANSWER: Z) ALL OXYGEN MOLECULES HAVE 8 NEUTRONS

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#### **TOSS-UP**

16) EARTH SCIENCE *Multiple Choice* Most blizzards that strike the continental U.S. most directly originated in which of the following locations:

- W) the Gulf of Alaska
- X) the Gulf of Mexico
- Y) along the Gulf Stream
- Astitute 30 Z) in the North Sea

ANSWER: W) THE GULF OF ALASKA

#### **BONUS**

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16) EARTH SCIENCE Short Answer What terrestrial planet rotates in an opposite direction to the planet Earth?

#### ANSWER: VENUS

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### multilite m # " 面射曲線 TOSS-UP R 19) LIFE SCIENCE Short Answer What is the scientific term for the biting structures of spiders? ANSWER: CHELICERAE (ACCEPT: CHELICERA) BONUS Ro 19) LIFE SCIENCE *Short Answer* In what structure of a nucleated cell are ribosomes assembled into their subunits? ANSWER: NUCLEOLUS (DO NOT ACCEPT: NUCLEUS) stitute # # 13 PC Ro mistime ## TOSS-UP 20) PHYSICAL SCIENCE Short Answer If the angle of incidence for a beam of light on a mirror is 27 degrees, what is the angle of reflection, in degrees? 面站抽版新林塔梯 stitute # # 13 PE Ro ANSWER: 27 titute start A Multitute ## **BONUS** 20) PHYSICAL SCIENCE Multiple Choice Which of the following is TRUE of gases: mythute ## # '& R mutute # # '& R matine # # 3 PS X) they are highly compressibleY) they behave like a fluid Y. Z) their particles are in uniform motion ANSWER: X) THEY ARE HIGHLY COMPRESSIBLE mythute ## # '& K mistinte # # '& R matitule ## # '\$ 1% muiture # # 3 PS Institute # # '& PR multitute \$6 \$ \$ N. mythille # # 'S R 面对机能称林塔张 面站加坡被状绪常 matinue ## # '& PL 面动地推荐林塔梯 matinte # # '\$ R N. mutute ## # '& R 面的机机都林塔张 maritute # # '\$ 1% 而时间的教林客张 stitute ## # 12 PK Withte # # 13 PK N. Middle School Round 3 Page 10 to the the B. Ph. to the life the to the the B. PS. 10 the the 1/2 1/2 \*\*\* #\* 13 % to the the 1/3 9%

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R.	TOSS-UP 23) GENERAL SCIENCE <i>Short Answer</i> What is the most common element in most steel? ANSWER: IRON	institute
PR Institute #	BONUS 23) GENERAL SCIENCE <i>Short Answer</i> Stainless steel is differentiated from other steels based mainly on the content of what element?	d
	ANSWER: CHROMIUM	
R.	24) LIFE SCIENCE <i>Multiple Choice</i> Which of the following is part of the nephron in the kidne	ey:
R Institute #	<ul> <li>W) islet cells (read as: EY-let)</li> <li>X) ureter</li> <li>Y) amygdala (read as: ah-MIG-dih-la)</li> <li>Z) glomerulus (read as: glow-MAIR-you-lus)</li> </ul>	
	ANSWER: Z) GLOMERULUS	
K.	24) LIFE SCIENCE <i>Short Answer</i> The human body is most commonly described as having whype of symmetry?	at internet
	ANSWER: BILATERAL	
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multille # # 3 PS \*\*\*\* 25) PHYSICAL SCIENCE Multiple Choice Which of the following BEST explains why a concrete floor feels colder than a wooden floor if both are at 21°C:

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**TOSS-UP** 

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W) wood is not as dense as concrete

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- X) concrete conducts heat better than wood
- Y) wood is alive and concrete is not
- institute % Z) concrete is much less elastic than wood

#### ANSWER: X) CONCRETE CONDUCTS HEAT BETTER THAN WOOD

multille m # "

#### BONUS

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#### ANSWER: VISCOSITY

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