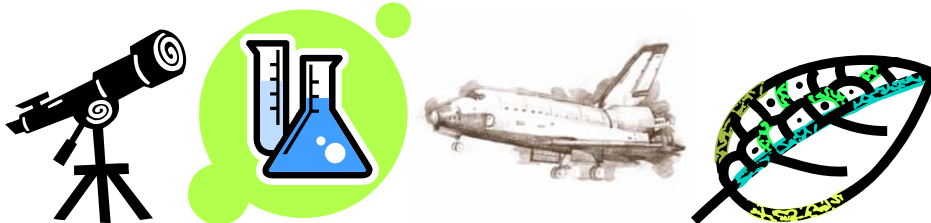


SCIENCE BOWL QUESTIONS



MATTER

1. Sand and water are put together: What kind of change? it just stays the same
2. Salt is stirred into water and salt seems to disappear. What kind of change? physical change
3. Mix two things together and they explode! What kind of change? chemical change
4. An ice cube melts. What kind of change? physical change
5. A piece of paper burns. What kind of change? chemical change
6. Water boils and evaporates: What kind of change? physical change
7. Baking soda and vinegar. What kind of change? chemical change
8. Rust. What kind of change? chemical change
9. A match burns. What kind of change? chemical change
10. Ice melts. What kind of change? physical change
11. Salt dissolves in water. What kind of change? physical change
12. Electricity flows through easily in a piece of metal. This shows what characteristic of matter? Conductivity
13. A cork floats and a rock sinks. This shows what characteristic of matter? Buoyancy

SEPARATION

14. How to separate sand and pebbles? STRAINER
15. How to separate iron filings and sand? MAGNET
16. How to separate salt and water? EVAPORATION or BOILING
17. How to separate salt, sand, and water? STRAIN SAND OUT WITH A FILTER THEN EVAPORATE OUT THE WATER TO LEAVE THE SALT
18. How to separate sugar and water with no boiling or evaporation? CRYSTALIZATION

PLANTS

19. This process takes energy from sun and turns it into sugar: photosynthesis
20. This is what is DIFFERENT in a plant cell than an animal cell: cell wall and chloroplasts
21. The CHEMICAL that helps out in photosynthesis in a plant cell is: chlorophyll
22. A SPORE is part of what life cycle? fern
23. A CONE is part of what life cycle? pine tree
24. What is the purpose of a fruit? A container for seeds

MEASURES WHAT?

25. THERMOMETER measures: heat
26. COMPASS measures: direction
27. BEAKER measures: volume
28. GRADUATED CYLINDER measures: volume
29. TRIPLE BEAM BALANCE measures: weight
30. A PAN BALANCE measures: weight
31. CENTIMETER RULER measures: length
32. A TAPE RULER measures: length

33. STOPWATCH measures time
34. A WIND VANE measures: wind direction
35. A WIND SOCK measures: wind direction
36. AN ANEMOMETER measures wind speed
37. A RAIN GAUGE measures: how much rain has fallen

LIGHT

38. Sunglasses are: translucent, opaque, refractive, reflective, transparent
39. Black rocks are: : translucent, opaque, refractive, reflective, transparent
40. Lens of a microscope or eyeglasses: translucent, opaque, refractive, reflective, transparent
41. Shiny bright metal is: translucent, opaque, refractive, reflective, transparent
42. Clear window is: translucent, opaque, refractive, reflective, transparent
43. All light passes through: translucent, opaque, refractive, reflective, transparent
44. Light bounces off: translucent, opaque, refractive, reflective, transparent
45. Solar energy comes from: THE SUN
46. Light is bent as in eyeglasses: translucent, opaque, refractive, reflective, transparent
47. Lens with thinner glass in middle CONCAVE
48. Lens with thinner glass at top and bottom CONVEX
49. The speed of light is: 186,000 miles per second
50. Light generally travels in what kind of line? Straight
51. Binoculars are: translucent, opaque, refractive, reflective, transparent
52. The lens of a telescope is translucent, opaque, refractive, reflective, transparent

INSULATORS OR CONDUCTORS?

53. Gold INSULATORS OR CONDUCTORS?
54. Plastic INSULATORS OR CONDUCTORS?
55. Wood INSULATORS OR CONDUCTORS?
56. Cloth INSULATORS OR CONDUCTORS?
57. Steel INSULATORS OR CONDUCTORS?
58. Copper INSULATORS OR CONDUCTORS?
59. Tap water INSULATORS OR CONDUCTORS?
60. Glass: INSULATORS OR CONDUCTORS?
61. Iron: INSULATORS OR CONDUCTORS?
62. Rubber INSULATORS OR CONDUCTORS?

ELECTRICITY:

63. Inside a wire, filled with electricity, these parts of the atom move: electron
64. For a light to come on in a circuit, the circuit must be: open
65. When a certain substance STOPS electricity, we call this...an insulator
66. When a certain substance carries electricity well, we call this...conductor
67. This is a machine containing magnets that produces electrical current: generator
68. The part of an electric generator that actually turns is called the : turbine

STATES OF MATTER

69. Sand is what state of matter? SOLID
70. **Inside** a basket ball, you find this state of matter: GAS
71. Inside a FULL container of milk, you find this state of matter: LIQUID
72. In H₂O, this state of matter is coldest? SOLID
73. In H₂O, this state of matter has the most energy? GAS
74. In H₂O, this state of matter is hottest? GAS
75. This state of matter takes the shape of whatever is poured into it? LIQUID
76. WATER TO STEAM: FREEZE, MELT, CONDENSE, EVAPORATE:
77. ICE TO WATER: FREEZE, MELT, CONDENSE, EVAPORATE:
78. WATER TO ICE: FREEZE, MELT, CONDENSE, EVAPORATE:

79. GAS TO WATER: FREEZE, MELT, CONDENSE, EVAPORATE
80. Water gets colder; turns to ice: FREEZE, MELT, CONDENSE, EVAPORATE
81. A bowl of water in refrigerator gradually disappears after a week: FREEZE, MELT, CONDENSE, EVAPORATE
82. Snow in the hot sun: FREEZE, MELT, CONDENSE, EVAPORATE
83. Water vapor in the air turns to water inside a cloud: FREEZE, MELT, CONDENSE, EVAPORATE
84. Chocolate sits out in the sun: FREEZE, MELT, CONDENSE, EVAPORATE
85. Melt means go from SOLID TO LIQUID
86. Condense means go from GAS TO LIQUID
87. Evaporate means go from LIQUID TO GAS
88. Freeze means go from LIQUID TO SOLID

POWER

89. Power from sun is called: solar power
90. Power from moving electrons is called: electricity
91. Power from moving air is called: wind power
92. Water power is called: hydro power
93. Power from atoms stuck together as in a battery is called: chemical power
94. Power from anything moving is called: kinetic power
95. Power from heat, deep in the earth is called: geothermal power
96. Power from the atom is called: atomic power

METAL OR NONMETAL

97. Gold: metal or nonmetal
98. Aluminum: metal or nonmetal
99. Wood: metal or nonmetal
100. Copper: metal or nonmetal
101. Steel: metal or nonmetal
102. Iron: metal or nonmetal
103. Cloth: metal or nonmetal
104. Plastic: metal or nonmetal
105. Silver: metal or nonmetal
106. Nickel: metal or nonmetal
107. Platinum: metal or nonmetal or nonmetal

ATMOSPHERE AND WATER CYCLE

108. The greatest part of our atmosphere is made of what gas? NITROGEN.
109. The part of the atmosphere organisms use for respiration is: OXYGEN.
110. Small portion of atmosphere used by plants for photosynthesis is...CARBON DIOXIDE
111. Outside of the atmosphere there is no air...this is called space and space is a ...VACUUM
112. Three main parts of water cycle: EVAPORATION, CONDENSATION,

PRECIPITATION

113. Four types of precipitation are: RAIN, SNOW, SLEET, HAIL
114. The water cycle gets its energy from...THE SUN
115. When water vapor condenses in the air, is heat gained or lost? LOST

EXPERIMENTS

116. A question you have which forms the beginning of an experiment? PROBLEM
117. Your guess as to what might happen: HYPOTHESIS
118. The things you will use in an experiment: MATERIALS
119. The steps you take in doing an experiment: PROCEDURE
120. What you are CHANGING: VARIABLES
121. Information from the experiment; DATA

122. What you figure out at the end of an experiment: **CONCLUSION**
123. Which is an example of a TESTABLE EXPERIMENT? . best dog/ best pet/nicest dog/**which dog people prefer**
124. Which is an example of a TESTABLE EXPERIMENT? Coolest/**travels longest distance/** .flies best/most complicated
125. Which is an example of a TESTABLE EXPERIMENT? **Who can lift more weight?**/W ho is strongest ?/Who is toughest?/Who is the biggest bully?
126. In order to do an experiment in the best way possible, you should: Get a scientist to do it/ copy from the book./**do the experiment YOURSELF many times**/go on the internet
127. You are in a tall, closed room...it is hot outside. Where in the room is it hottest? **top**
128. Which gas is responsible for global warming? **carbon dioxide**
129. Which gases do animals and plants BOTH need for respiration? **oxygen**
130. Plants take carbon dioxide from the air for photosynthesis. Which gas IS RELEASED?
oxygen

IMAGINE

131. Imagine that the sun suddenly got a little COLDER, what would you expect to happen to evaporation of water from the ocean? Increase/**decrease**/stay the same/stop
132. Imagine that all the magnets of the world disappeared, and we could NOT make more, what could we NOT easily make? hydro power/**electricity**/ nuclear power/geothermal power
133. Imagine that you are in the EYE of a hurricane: The hurricane for you is...over/just beginning/**in the middle**/ turning into a tornado
134. Imagine a cloudy day. Compared to a sunny day, you would expect the cloudy day to be...**hotter**/colder/the same temperature/thundering
135. Imagine a planet between Mars and Jupiter. It's year on this planet would be: **Longer than Mars and shorter than Jupiter**

SPACE and EARTH

136. A REVOLUTION of earth takes how long? **one year or 365 days**
137. A ROTATION of earth takes how long? **one day or 24 hours**
138. A complete orbit of the moon around the earth takes how long? **one month**
139. If you weighed 66 pounds on earth, how much would you weigh on the moon with 1/6 the gravity? **Eleven pounds**
140. What FORCE pulls all things in the universe together? **gravity**
141. The earth does NOT move in a circle around the sun: it moves in**an ellipse (an oval)**
142. Our sun, the 8 planets circling around it, asteroids and comets make up our...**solar system**
143. Which is largest: earth, **sun**, or moon?
144. Planet closest to sun: **Mercury**
145. Planet farthest from sun: **Neptune (Pluto is gone!)**
146. Planet with life: **Earth**
147. "Red" Planet: **Mars**
148. Hottest planet: **Venus**
149. Giant Red spot; largest planet: **Jupiter**
150. Between Neptune and Saturn: **Uranus**
151. Earth's natural satellite: **The Moon**
152. Earth's star: **The Sun**
153. Planet known for giant rings: **Saturn**
154. Earth is closer to sun than Uranus: Which one has a LONGER year? **Uranus**
155. Why doesn't the earth fly off, away into deep space, away from the sun? **gravity**
156. As a comet comes closer to the sun, you expect the TEMPERATURE to: **increase**
157. If the earth stopped spinning, what would happen to GRAVITY on earth? **Nothing**
158. Why do most meteors NOT destroy the earth: **Most burn up in the atmosphere**

159. If a planet is very far from the sun, you would expect it to have: **a long year**
160. What is LONG TERM problem with being in the sun with skin exposed? **Skin cancer**
161. What happens to the tides if the moon was not there? Increase or **decrease**
162. If the sun suddenly disappeared, what would happen to the earth FIRST? **it would fly off into space in a straight line**
163. If you firing a gun in deep space, far away from any planets or stars, the bullet would: go for a while, then stop/**go on forever until it hit something**/it would not go anywhere
164. The center of the earth is called: **THE CORE**
165. Asia, Africa, Europe are examples of **CONTINENTS**
166. Another name for a crack in the earth is a **FAULT**
167. The LAYER of the earth that we live on is called the: **CRUST**
168. The large CIRCLE OF VOLCANOES around Pacific Ocean is called: **THE RING OF FIRE**
169. A shadow of the earth makes the moon seem to disappear one night for a few minutes. This is called a: **LUNAR ECLIPSE**
170. The moon passes directly in front of the sun and for a few minutes, in the middle of the day, it becomes dark. This is called a: **SOLAR ECLIPSE**
171. Water, rain and temperature break a rock into pieces. This is called: **WEATHERING**
172. The part of the earth, between the core and the crust is called the: **MANTEL**
173. Why is it warmer in summer northern hemisphere? **the earth gets direct rays from the sun**
174. Big pieces of ice that form at the poles or on top of mountains are called: **GLACIERS**
175. Some rocks are shiny: The property of being shiny is called: **LUSTER**
176. Some rocks are DIFFICULT TO BREAK: This property is called **HARDNESS**
177. Some rocks LET LIGHT THROUGH: this is called: **TRANSLUCENCE**
178. . The way some rocks BREAK as straight lines or just crumbling is called: **CLEAVAGE**
179. Rocks found near a volcano, having been melted are called: **IGNEOUS**
180. Rocks found deep underground, pressured and heated are called: **METAMORPHIC**
181. Rocks found under the ocean, built up in LAYERS are called: **SEDIMENTARY**
182. List the four seasons: **WINTER, SPRING, SUMMER, FALL**

TRUE FALSE

183. Sound moves faster in solids than in air: **true** or false
184. The moon has an atmosphere of mostly oxygen: true or **false**
185. There is water on the moon: true or **false**
186. Sunspots of the sun are darker and less hot than the rest of the sun: **true** or false
187. The center of the earth is called the core: **true** or false
188. We live on the mantel of the earth **true** or **false**
189. The liquid part of the earth is called the crust: true or **false**
190. A crack in the earth is called a fault **true** or false
191. Water will help ERODE and WEATHER a mountain. **true** or false

CONSIDER THIS

192. If the earth was SMALLER, gravity on earth would **DECREASE**
193. Jupiter is a MUCH bigger planet than earth. If you could land on Jupiter, your weight would **INCREASE**
194. You shoot a bullet in space, far away from any star or planet. The speed of the bullet would **STAY THE SAME**
195. You are rolling a ball down a ramp...as the ball rolls, the speed of the ball will **INCREASE**
196. On earth, you roll a ball across a rug, as the ball rolls, the speed of the ball **DECREASE**

197. Something is stuck in an electric wall socket (a place where you plug in). You need to get it out....what could you use so that you do NOT get shocked? **PLASTIC (don't do it! Get help from an adult)**
198. If you take a pan full of SEA WATER and boil it all away, what would you expect to find at the bottom of the pan? **SALT**
199. Why does the ball roll down the ramp and not fly off in to the air? **GRAVITY**
200. 1000 metal paper clips are mixed with a 1000 plastic ones. How to separate them quickly? **MAGNET**
201. You are sealed in a bank safe.....no air can get in or out. What would help you live longest in this air tight, sealed container? **PLANTS** which make oxygen
202. A glass cup and a steel cup are filled with boiling water: which one is HOTTEST TO TOUCH? **STEEL CUP** because steel conducts heat well
203. A glass cup and a steel cup are filled with boiling water: which one will keep the water hottest the longest? **GLASS CUP** because glass is an insulator
204. An animal falls into the water and drowns because it does not have which gas is the atmosphere? **OXYGEN**
205. It is night and there is a new moon....what do you see in the sky? **NOTHING**
206. Many grasshoppers move into an area. What happens to grass plants in area? **DECREASE**
207. A lot of grasshoppers move in a brand new area, full of all sorts of plants. The population of grasshoppers **INCREASES**
208. Many of snakes move into the area. the population of grasshoppers...**DECREASES**

INVENTORS/SCIENTISTS

209. Invented the light bulbs: **EDISON**
210. Invented the radio: **MARCONI**
211. Invented the telephone: **BELL**
212. Invented the sewing machine: **SINGER**
213. Invented theory of Relativity: **EINSTEIN**
214. Worked on theory of Gravity: **NEWTON**

GENETICS

215. CURLY HAIR **INHERITED** OR ACQUIRED
216. ATTACHED EAR LOBE **INHERITED** OR ACQUIRED
217. DYED HAIR INHERITED OR **ACQUIRED**
218. ROLL TONGUE **INHERITED** OR ACQUIRED
219. PIERCED TONGUE INHERITED OR **ACQUIRED**
220. TALKING INHERITED OR **LEARNED**
221. CRYING **INHERITED** OR LEARNED
222. BREATHING **INHERITED** OR LEARNED
223. FEELING PAIN **INHERITED** OR LEARNED
224. RIDING A BIKE INHERITED OR **LEARNED**

NUMBERS

225. On earth you weight 100 pounds. On the planet DUDU, where the gravity is TWICE that of earth, you weigh **200 POUNDS**
226. On earth you weight 100 pounds. On the planet LALA, where the gravity is ONE HALF that of earth, you weigh **50 POUNDS**
227. On earth you weight 100 pounds. On the planet KACHUI, where the gravity is ONE QUARTER that of earth, you weigh **25 POUNDS**
228. On earth you weight 100 pounds. On the planet LELE, where the gravity is THREE TIMES that of earth, you weigh **300 POUNDS**
229. Temperature Fahrenheit for freezing water: **32 DEGREES**
230. Temperature Fahrenheit for boiling water: **212 DEGREES**
231. Temperature Celsius for freezing water: **0 DEGREES**
232. Temperature Celsius for boiling water: **100 DEGREES**
233. Number of months in a year: **12**
234. Number of days in a year: **365**
235. Number of seasons in a year: **4**
236. Number of weeks in a year: **52**
237. Proper number of cups of coffee per day for Mr. Z: **10**

ATOMS

238. Positively charged particles in an atom are called **PROTONS**
239. Negatively charged particles in an atom are called: **ELECTRONS**
240. Neutrally charged particles in an atom are called: **NEUTRONS**
241. The center of an atom is called: **NUCLEUS**
242. In the whole universe, there are 92 different kinds of matter. Each kind of matter has a different number of protons in it. These 92 substances are called **ELEMENTS**
243. When two substances are put together and stirred, but they remain apart from each other, this is called: **MIXTURE**
244. When two substances are put together and the atoms combine into a new molecule, this is called: **COMPOUND**

LIFE IN GENERAL

245. An ecosystem that is extremely cold, dry, and has few plants and animals is called: **TUNDRA**

246. An ecosystem that is wet, hot with numerous plants and animals is called: **TROPICAL RAINFOREST**
247. An ecosystem with little rain, great heat, and few plants is called **DESERT**
248. An ecosystem with many trees, cool winters, and summers is called: **DECIDUOUS FOREST**
249. A very cold and wet ecosystem with many plants such as pine trees is called: **TAIGA**
250. A plant's sexual reproductive system is often in its **FLOWER**
251. The part of a plant that brings in the MOST water is its: **ROOT**
252. The part of a plant where most photosynthesis takes place is called: **LEAF**
253. Part of a plant the supports the plants and moves water and sugar and nutrients: **STEM**
254. Photosynthesis makes sugar in a plant with water, nutrients, sunlight and: **CARBON DIOXIDE**
255. The element in air we need for RESPIRATION is: **OXYGEN**
256. The part of air that plants need to make sugar is: **CARBON DIOXIDE**
257. This type of animal HUNTS and KILLS another animal for food: **PREDATOR**
258. This type of animal eats plants to stay alive: **HERBIVORE**
259. This type of animal eats already dead animals: **SCAVENGER**
260. This type of animal IS HUNTED by others. **PREY**
261. This type of organism, such as a worm, bacteria, or a fungus, breaks down other plants and animals into basic substances and chemicals: **DECOMPOSER**

DEFINITIONS

262. Metals such as iron are attracted to other metals. Definition of: **MAGNETISM**
263. Certain objects float in water, while others sink. Definition of **BUOYANCY**
264. Certain substances carry electricity from one place to another. Definition of: **CONDUCTIVITY**
265. The complete change in body shape of animals as the animals develop. Definition of: **METAMORPHOSIS**
266. Much rain pours down on the soil and dirt begins to wash away. Definition of: **EROSION**
267. The earth spins one time per day on its axis. Definition of: **ROTATION**
268. An organism that eats everything, like a human. Definition of: **OMNIVORE**
269. Polar bears have white fur so they can blend into their artic environment and hunt without being easily seen. *EXAMPLE* of: **ADAPTATION**
270. Some monkeys use rocks to break into clams and eat them. *EXAMPLE* of: **LEARNED BEHAVIOR**

THIS MEANS....

271. *Another word for:* Place organism lives: **HABITAT**
272. *Another word for:* Move throughout year: **MIGRATE**
273. *Another word for:* Sleep part of the year: **HIBERNATION**
274. *Another word for:* Hunter: **PREDATOR**
275. *Another word for:* The hunted one: **PREY**
276. *Another word for:* Number of organisms: **POPULATION**
277. *Another word for:* Awake at night: **NOCTURNAL**
278. *Another word for:* Breathing organ for animals: **LUNGS**
279. *Another word for:* Breathing organ for fish: **GILLS**
280. *Another word for:* Job animal has: **NICHE**
281. *Another word for:* Eats dead animals: **SCAVENGER**