1.This picture shows people walking through a highly-polluted city. From what type of pollution are they protecting themselves based on what they are wearing? 這張照片顯示了人們穿過一個高度污染的城市。他們根據自己的穿著來保護自己免受什麼類型的污染？

A.air pollution 空氣污染
B.water pollution 水污染
C.land pollution 土地污染
D.noise pollution 雜訊污染

2.Which of the following represents refraction? 以下哪項代表折射？

3.The asteroid belt is found between the orbits of these two planets. 小行星帶位於哪兩顆行星的軌道之間。

A.Jupiter and Saturn 木星和土星
B.Mars and Jupiter 火星和木星
C.Mars and Saturn 火星和土星
D.Mercury and Venus 水星和金星

4.The fourth planet from the Sun; also known as the "red planet." 距離太陽第四顆行星;也被稱為「紅色星球」。

A.Neptune 海王星 B.Mercury 水星
C.Earth 地球 D.Mars 火星

5.This table shows the rotation period and revolution period for 6 planets, and Earth's moon, all relative to Earth's periods. Which 2 planets have shorter days than Earth? 此表顯示了 6 顆行星的自轉週期和公轉週期，以及地球的月球，相對於地球的週期。哪兩顆行星的白晝比地球短？

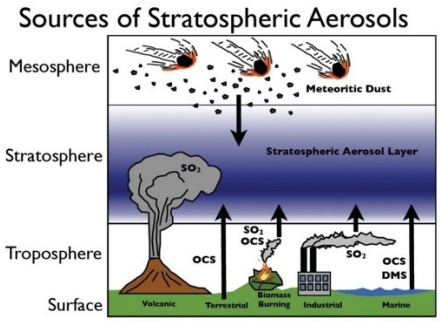
Planet	Rotation Period	Revolution Period
Mercury	58 days	88 days
Venus	243 days	224.7 days
Earth	23 hr, 56 min	365.26 days
Moon	27 days	27 days
Mars	24 hr, 37 min	1.88 years
Jupiter	9 hr, 55 min	11.86 years
Saturn	10 hr, 32 min	29.46 years

A.Jupiter and Saturn 木星和土星
B.Venus and Mercury 金星和水星
C.Mars and Jupiter 火星和木星
D.Saturn and Moon 土星和月亮

6.Which type of electromagnetic radiation is the reason we need sunglasses and sunscreen to avoid getting a sunburn? 哪種類型的電磁輻射是我們需要太陽鏡和防曬霜以避免曬傷的原因？

A.X-rays X 射線 B.Gamma Rays 伽碼射線
C.Ultraviolet waves 紫外線 D.Infrared waves 紅外線

7.Some of the greenhouse gases that are emitted by volcanoes, a natural type of forcing of air pollution, can include: 火山排放的一些溫室氣體是空氣污染的一種自然原因，可能包括：



A.water vapor 水蒸氣
B.carbon dioxide 二氧化碳
C.both water vapor & carbon dioxide 水蒸氣和二氧化碳
D.methane and carbon monoxide 甲烷和一氧化碳

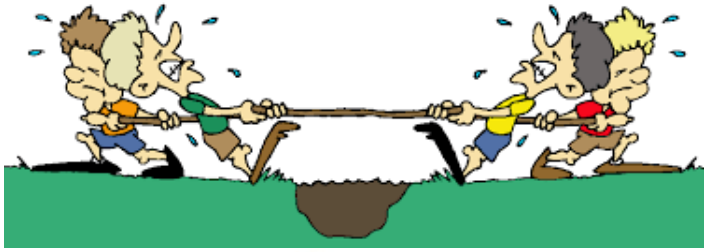
8.Which would NOT be a way of reducing friction? 哪一種不是減少摩擦的方法？

A.making the surfaces smoother 使表面更光滑
B.using lubricants such as waxes, oils, or grease 使用蠟、油或油脂等潤滑劑
C.changing from sliding friction to rolling friction using ball bearings 透過使用滾珠軸承將滑動摩擦改為滾動摩擦
D.Using kitty litter on snow and ice to help your car gain traction 在雪和冰上使用貓砂來幫助汽車獲得抓地力

9. ___% of the world population is without safe drinking water. ___% 世界上的人口沒有安全的飲用水。

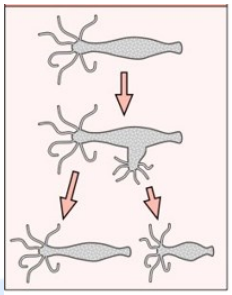
A.21% B.29% C.25% D.11%

10.If these teams are pulling with the same amount of force what will happen? 如果這些團隊以相同的力拉動會發生什麼？



A.The boy in blue will win. 藍衣男孩將獲勝。
B.They will not move at all. 他們根本不會移動。
C.The boy in red will win. 紅衣男孩將獲勝。
D.Both will fall down. 兩者都會掉下來。

11.Freshwater Hydra bulges off the side of a parent and eventually separates as a new cell. Based on this information what type of reproduction is this? 淡水水螅從親本的側面膨出，最終分離為一個新的細胞。根據這些資訊，這是什麼類型的複製品？



A.sexual reproduction 有性繁殖
B.asexual reproduction (budding) 無性繁殖（出芽）
C.asexual reproduction (binary fission) 無性繁殖（二元裂變）
D.asexual reproduction (regeneration) 無性繁殖（再生）

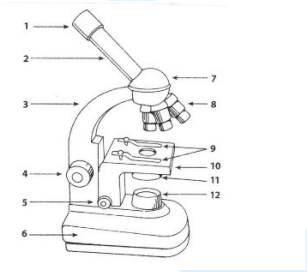
12.The egg cell of a koala contain 12 chromosomes. How many chromosomes does a normal cell contain? 無尾熊的卵細胞包含 **12** 條染色體。正常細胞包含多少條染色體？

A.12 B.36 C.20 D.24

13. Excessive burning of fossil fuels release _____ which traps _____ in the atmosphere and causes _____ . 化石燃料的過度燃燒會釋放 _____，_____ 困在大氣中並導致 _____。

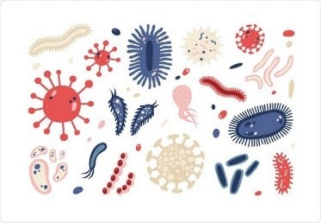
A.oxygen , solar radiations , carbon dioxide
氧氣、太陽輻射、二氧化碳
B.carbon dioxide , solar radiations , green house effect 二氧化碳，太陽輻射，溫室效應
C.carbon dioxide , solar energy , oxygen
二氧化碳、太陽能、氧氣
D.oxygen , solar energy , greenhouse effect
氧氣，太陽能，溫室效應

14.A microscope is an instrument that ____.
顯微鏡是一種儀器 _____。



A.makes faraway objects look closer.
使遠處的物體看起來更近。
B.makes small objects appear larger.
使小物件看起來更大。
C.decreases the size of small objects.
減小小物體的大小。
D.increases the size of small objects.
增加小物體的大小。

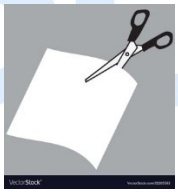
15.Four students in Mrs. Harper's class make the following observations. Choose which student is correct. Harper 夫人班上的四名學生提出了以下觀察結果。選擇正確的學生是 _____。



A.Samerius says that all microorganisms are found in the ocean. Some are helpful, but some are harmful. It's best to shower after swimming at the beach.
Samerius 說，所有微生物都存在於海洋中。有些是有幫助的，但有些是有害的。在海灘游泳後最好洗澡。
B.Emily says that all microorganisms are harmful. This is why we must get vaccinations and antibiotics from the doctor. Emily 說所有微生物都是有害的。這就是為什麼我們必須從醫生那裡獲得疫苗和抗生素。
C.Melissa says that some microorganisms are helpful and some are harmful. The best way to protect ourselves from harmful microorganisms is to wash our hands with soap and water. Melissa 說，有些微生物是有益的，有些是有害的。保護自己免受有害微生物侵害的最佳方法是用肥皂和水洗手。
D.Jonathan says it's impossible to become sick from bacteria. Only viruses and fungi can make a person sick. Make sure to sneeze in your elbow to prevent the spread of germs. Jonathan 說，細菌不可能讓人生病。只有病毒和真菌才能使人患病。打噴嚏時務必用手肘遮住口鼻，以防止細菌傳播。

16.Which is an example of a chemical change? 哪個是化學變化的例子？

A

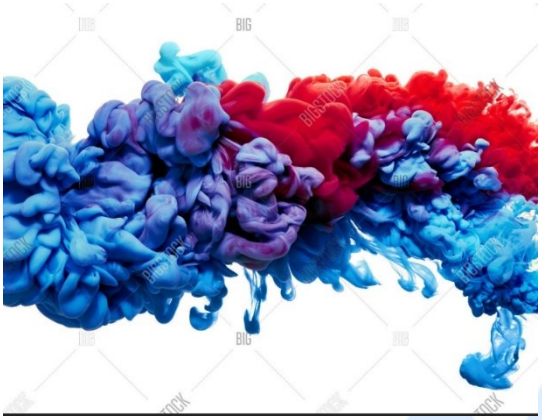


B

C

D

17. Ms. Guadiamos mixes red paint with blue paint and it becomes purple paint. Student A says that's its a chemical change. Student B says that it's not a chemical change. Who is right and why?
Guadiamos 女士將紅色顏料與藍色顏料混合，就變成了紫色顏料。學生 A 說，那是化學變化。學生 B 說這不是化學變化。誰是對的以及為什麼？



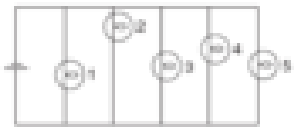
A.Student A is right. Change in color is always sign of a chemical change. 學生 A 是對的。顏色的變化總是化學變化的跡象。
B.Student A is right. Whenever you mix 2 substances together a chemical change happens. 學生 A 是對的。每當兩種物質混合在一起時，就會發生化學變化。
C.Student B is right. The color change did NOT indicate a new substance was created because it was expected to turn purple. 學生 B 是對的。顏色變化並不表示產生了新物質，因為預料它是會變成紫色。
D.Student B is right. Color change is NOT a sign of a chemical change. 學生 B 是對的。顏色變化不是化學變化的標誌。

18. In which of the following circuits will all of the remaining light bulbs go out if bulb 3 burns out? 在下列哪一個電路中，如果 3 號燈泡燒壞，所有剩餘的燈泡都會熄滅？

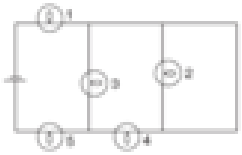
A

B

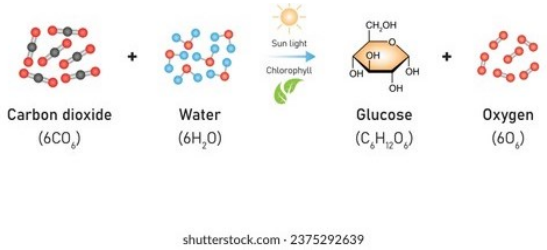
C



D



19. What are the reactants of photosynthesis? 光合作用的反應物有哪些？

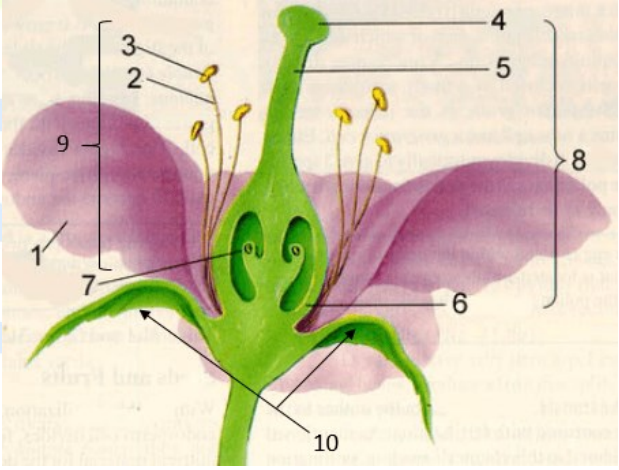


A.Glucose and oxygen 葡萄糖和氧氣
B.Carbon dioxide and water 二氧化碳和水
C.ATP and NADPH ATP 和 NADPH
D.Pyruvate and ATP 丙酮酸和 ATP

20. A dark funnel shaped cloud that reaches from the sky to the ground is_____.
從天而降到地面的黑色漏斗狀雲是 _____。

A.Hurricane 颶風 B.Tornado 龍捲風
C.Typhoon 颱風 D.Thunderstorm 雷暴

21.Which part produces ovules? Which numbers is shown? 哪部分產生胚珠？顯示在哪數位？

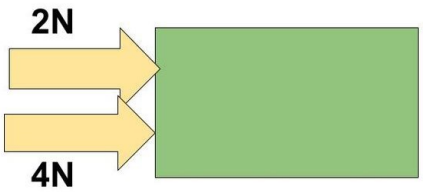


A. 4 B. 5 C. 6 D. 7

22. What is the force on this spring scale? 這個彈簧刻度上的力是多少？

A. 2 N B. 3 N C. 4 N D. 5 N

23. How much net force is being applied to this box? 對這個盒子施加了多少淨力？



A. 4 N B. 5 N C. 6 N D. 7 N

24. How many types of fibers has sheep's hairy skin? 綿羊的毛皮有幾種纖維？

A. 1 B. 2 C. 3 D. 4

25. What is the Vitamin C in the baked potato in percentage? 烤土豆中的維生素 C 百分比是多少？

Baked Potato

Nutrition Facts

Serving Size 1 potato (148g/5.3oz)

Amount Per Serving	
Calories 100	Calories from Fat 0
	% Daily Value*
Total Fat 0g	0%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 0mg	0%
Potassium 720mg	21%
Total Carbohydrate 26g	9%
Dietary Fiber 3g	12%
Sugars 3g	
Protein 4g	

Vitamin A 0%	Vitamin C 45%
Calcium 2%	Iron 6%
Thiamin 8%	Riboflavin 2%
Niacin 8%	Vitamin B_6 10%
Folate 6%	Phosphorous 6%
Zinc 2%	Magnesium 6%

*Percent Daily Values are based on a 2,000 calorie diet.

A. 30% B. 35% C. 40% D. 45%