

May 2016
(Student's copy / Lower Secondary)
Article Building a Planet on Earth
From pg 56-61

1. Inferential

How does the diamond anvil cell work to help physicists? (1m)

2. Language/Rephrasing Question

Why do physicists consider the claim of building metallic hydrogen "contentious"? (2m)

3. Inferential Question

How does the diamond anvil cell operate as a scientific tool? (3m)

4. Language/ Inferential Question

- (a) Give TWO main difficulties in analyzing data about shockwave science. (2m)
(b) Give ONE technique that fails to check if hydrogen has turned into a fluid. (1m)

5. Vocabulary Question

How are lasers used to create fluid hydrogen? (1m)

6. Evaluative Question

Why do researchers value even fleeting moments in analyzing the creation of hydrogen gas giants? (2m)

Word Search Puzzle

D K H K E H E Q U K A X C O K D L V R Z
M R K H I L Y K I L P Q M S A U D H Y U
C J U A L I B K P U G L A M O R O U S F
G T R Y D Y H A C R J Q N Z G Z R H U V
K P T P R C K S N N E S C D N I K G A I
K N Z P M I F Z H O M S Z Z U U V J N L
B P U C H R O N I C I V P U D O W G E B
F Q I B F Z S F O F O H U I E W H E C V
B Y R L E M D N B D Y E S H T E N E N L
P K B X Q D A P E V P V R A J E K Z E F
R E B T D T F T P W T R U U F B W I L G
H X Q J U H A J K C Z F M J C N F R A B
K T V N M N B D I V U D S W Q S U L V C
Y J T H I E A R P D R M U P A A B H E C
K A Y C Y M A B V V I W Y R N K U O R L
T O S T Y P K N S T B I H C I O F T P P
E A S B E U W Z C Q V Q E F L P Z Z J X
F P T K H V S I P X B E D V T H N V L I
R K Z N B D V S M T S M C P B W A J R T
Y O V D S Q W W O N D R O U S Z E R K M

OBSCURE

PREVALENCE

UNFASHIONABLE

RESPIRE

VICTIMS

DEBUNK

WONDROUS

FASCINATED

GLAMOROUS

CHRONIC

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      E L
      B A R G L A M O R O U S
K N N O E S
  U C H R O N I C I P
  B E D E S A T
  D E R A F E
  A T U C N A V
  N S S U V
  I M B O R
  S T I P
  A C
F A V
  V W O N D R O U S
  
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EDITING

Adapted from “How do seeds sprout?”

Carefully read the text below.

For each paragraph, there is at least one grammatical error. Some lines do not contain any errors.

If there is NO error in a line, put a tick (/) in the space provided.

If the line is incorrect, circle the incorrect word and write the correct word in the space provided.

The correct word you provide must not change the original meaning of the sentence.

The pressures that a plant cell can generate is astonishing. In a seedling, it is probably only three of four times the pressure in a bottle of champagne, And it is the pressure that shoves the soil aside

Plants are held up with water pressure and we are most aware of this when plants wilt. When soil becomes dry in the summer, plants may not have enough water to keep the pressure sufficient high. And so the cells lose their structural strength and start to sag. If you put wilt lettuce into water, it will soon pump water back into its cells, making it strong and crisp again.

As the seedlings are pushing themselves through the soil, they have also got a piece of armour protecting them. The first two plant leaves sometimes still in their seed case are curled up at the top of the new shoot. By the cells in the new plant inflate and push upwards, these two leaves take the brunt to the push back from the surrounding soil, forcing their way through. Once the seedling has reached the surface , it can cast away the seed case open up the two new leaves and become a self-building solar powered factory

Types of Organisational Patterns in Exposition and Arguments

1. Enumeration

Facts, characteristics, or features are listed in a LOGICAL order

Use of connectors like: *to begin with, then, next, in fact, first, finally, secondly, most important*

2. Time-Order

Facts/events are presented in a CHRONOLOGICAL order

Use of prepositions and time-clauses like: *on (date), at (time), not long after, now, as before, when, before, after*

3. Comparison-Contrast

Points out SIMILARITIES and DIFFERENCES

Use of connectors like: *as well as, not only, but also, moreover, in addition, similarly, however, on the other hand, while, although, unless, in contrast*

4. Cause-Effect

Shows how facts, events, or concepts come into being.

Use of connectors like: *because, since, therefore, consequently, as a result, this led to, nevertheless, if...then, thus, hence, this resulted in*

5. Problem-Solution

Shows the development of a problem and its solutions.

Use of connectors: *because, [as in 4.]*

Examine the following passages and identify:

- (a) the main idea, supporting ideas and the details
- (b) the type of top-level structure adopted

Passage 1

The guests who go to Viewpoint Inn are the laziest vacationers in the world. While the tennis court collects dust and the swimming pool sparkles silently in the sun, the patrons gather on the sun deck to read, chat or engage in a cautious game of dominoes. Even eating is too great an effort for most guests, who rise at about ten, eat a leisurely brunch at eleven, and sometimes forget to return to the dining room for supper until late evening. The attitude at Viewmont is that vacationing means resting – and only resting. Anyone who should bring fishing equipment to the Inn to use at one of the nearby streams would surely be whispered about by the other guests.

What is the topic sentence and how does the writer develop it?

Passage 2

Just as talent is developed in privacy, so is bold, independent thinking developed in the privacy of one's circles of colleagues and friends. If anyone can be torn from this environment at any moment and forced to explain any of his thoughts before a panel of grim-faced strangers – fearful, narrow-minded private groups or certain congressmen who are either chronically suspicious or lovers of publicity, their bold or orthodox thoughts will dry up in this land.

Explain how the second sentence develops the first.

Passage 3

Thinking is a basic human activity. You exist; therefore you think. You are able to think in several different ways, and we want to stress as vigorously as we can that the thinking you first undertake when you write a paper is a process of increase, growth, or expansion. One thought generates many, just as a handful of seeds generate a rich harvest. A single idea, the one you begin with, will beget many others, which in turn will beget still more. This crop of generated ideas must be cultivated, weeded, and nurtured to produce your final paper.

Explain in detail the analogy used by the writer to develop his idea.