PSLE SCIENCE (FOUNDATION)

Answering Techniques in PSLE Science Structured & Open-Ended Questions

1. ‘Comparing’ Type Question

‘Comparing’ Type Question involves statements such as:
- *State the difference/similarity between…?*
- *Explain the difference/similarity in…*

a. **Similarity**

Begin the statement with **‘Both…’**

**Example**

*Study the pictures of Animals A and B below.*

![Animal A](image1.png)  
![Animal B](image2.png)

(a) *Based on the pictures above, list 2 similarities between animals A and B shown above. (Do not mention their sizes and colours)*

**Thinking Process**

Compare only on the characteristics of the animals based on the picture above, and not other characteristics that you have learned in your Science lessons such ‘Both can crawl’ or ‘Both are insects’.

**Sample Answer**

Both Animal A and B have feelers; or

Both Animal A and B have 6 legs

(Unaccepted answer: ‘The ant and cockroach have feelers’. The question requires you to compare between Animal A and B and not ant and cockroach)

b. **Difference**

- Compare the 2 identities/objects/animals using phrases such as ‘Animal A…….. **but** Animal B…..’; or **whereas**
• Use comparison phrases such ‘more/less than’ and ‘bigger/smaller than’
• Both identities/objects/animals must be mentioned in the statement

Using the same example above:

(b) Based on the pictures above, list a difference between Animal A and B shown above. (Do not mention their sizes and colours)

Sample Answer
Animal B has wings but Animal B does not.

Unacceptable answers:

<table>
<thead>
<tr>
<th>Sample Statement</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Animal B has wings’</td>
<td>Statement is incomplete as there is no basis of comparison to Animal A.</td>
</tr>
<tr>
<td>‘Animal B can fly but Animal A cannot.’</td>
<td>Statement is not based on the picture.</td>
</tr>
</tbody>
</table>

2. ‘Pattern/Relationship’ Type Question.
‘Pattern/Relationship’ Type Question involves phrases such as:
• ‘What is the pattern between…and…?’
• ‘Find the relationship between…and?’

Pupils have to score full marks in this type of question as the clues are easily available within the question:-

<table>
<thead>
<tr>
<th>Clues</th>
<th>Part of Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changed Variable (CV)</td>
<td>Stem of question. CV is the variable that is purposely changed.</td>
</tr>
<tr>
<td>Result Variable (RV)</td>
<td>Stem of the question. RV is the variable that gives the results that the experiment provides at the end of the investigation.</td>
</tr>
<tr>
<td>Experimental Results</td>
<td>Usually displayed in a table form. The CV is usually on the left column while the RV is usually on the right column. The pattern of CV and RV (ie increasing/decreasing) are easily observed in the table.</td>
</tr>
</tbody>
</table>

When you answer the question use the following structure:
- ‘As the <CV> increases/decreases, the <RV> increases/decreases’; or
- ‘The more/less the <CV>, the more/less is the <RV>’
Example

The table below shows the mass of a kitten over a period of time.

<table>
<thead>
<tr>
<th>Age in weeks</th>
<th>Mass in grams</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>300</td>
</tr>
<tr>
<td>5</td>
<td>450</td>
</tr>
<tr>
<td>9</td>
<td>780</td>
</tr>
</tbody>
</table>

What is the relationship between the kitten’s age in weeks and its mass?

Thinking Process

Identify and highlight the CV and RV in the stem of the question:
CV – Kitten’s age in weeks
RV – Kitten’s mass in grams
Observe how the CV and RV change in the table

Sample Answer

As the kitten’s age in weeks increases, its mass in grams increases; or
The more the kitten’s age in weeks, the more its mass in grams.