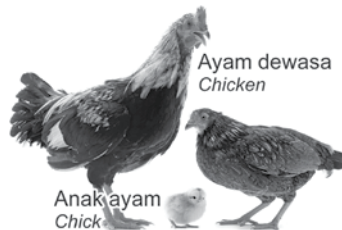




## Tugasan PEKA

2

Kaji situasi di bawah.  
*Study the situation below.*



Aqil mendapati kadar pertumbuhan haiwan seperti kucing dan ayam adalah berbeza ketika haiwan masih kecil dan ketika haiwan sudah dewasa. Aqil ingin menyiasat sama ada pola pertumbuhan anak benih tumbuhan adalah sama seperti haiwan.

*Aqil finds that the growth rate of animals such as cats and chickens is different when the animals are still young and when the animals are adults. Aqil wants to find out if the growth pattern of plants is the same as that of animals.*

1. Nyatakan inferens bagi dapatan eksperimen ini.

*State the inference from the findings of the experiment.*

**Semakin bertambah masa, semakin bertambah ketinggian anak benih kerana anak benih mengalami pertumbuhan.**

*The longer the time of the experiment, the greater the height of the seedlings as they undergo growth.*

2. Berdasarkan dapatan eksperimen, tuliskan satu hubungan antara pemboleh ubah dimanipulasikan dengan pemboleh ubah bergerak balas.

*Based on the results of the experiment, write the relationship between the manipulated variable and the responding variable.*

**Semakin bertambah masa, semakin bertambah ketinggian anak benih.**

*The longer the time of the experiment, the greater the height of the seedlings.*

3. Nyatakan definisi secara operasi bagi pertumbuhan tumbuhan.

*State the operational definition for plant growth.*

**Pertumbuhan tumbuhan ialah proses yang menyebabkan ketinggian anak benih bertambah apabila anak benih ditanam dan dibiarkan selama tujuh hari.**

*Plant growth is the process that causes seedlings to increase in height when seedlings are planted and left for seven days.*

4. Apakah kesimpulan yang boleh dibuat berdasarkan keputusan eksperimen?

*What is the conclusion that can be made from the results of this experiment?*

Pola pertumbuhan tumbuhan adalah berbentuk sigmoid. Namun, pola pertumbuhan anak benih dalam eksperimen ini tidak berbentuk sigmoid disebabkan masa eksperimen adalah singkat.

*The growth pattern for plants is sigmoid-shaped. Nonetheless, the growth pattern for the seedlings in this experiment is not sigmoid-shaped because the time of the experiment is short.*

5. Berikan ulasan tentang bentuk graf yang telah diplotkan.

*Describe the shape of the plotted graph.*

Graf yang diplotkan tidak menunjukkan bentuk sigmoid. Hal ini demikian kerana tempoh masa kajian terlalu pendek.

*The plotted graph does not show a sigmoid shape. This is because the time of the experiment is too short.*

6. Apakah perbezaan antara bentuk lengkung pertumbuhan manusia dengan lengkung pertumbuhan tumbuhan?

*What is the difference between the growth curve for humans and the growth curve for plants?*

Tiada perbezaan kerana kedua-duanya berbentuk sigmoid.

*There are no differences. Both are sigmoid-shaped.*

7. Kaitkan pertumbuhan anak benih dengan bentuk graf.

*Relate the growth of the seedlings to the shape of the graph.*

Semakin bertambah masa (hari), semakin tinggi anak benih kacang hijau.

*The longer the length of the experiment, the taller the seedlings.*

8. Cadangkan penambahbaikan untuk mendapatkan data yang jitu.

*Suggest improvements to obtain more accurate data.*

- Pastikan anak benih adalah sama jenis bagi setiap eksperimen dijalankan.

*Make sure the seedlings are of the same type for each experiment conducted.*

- Pastikan kapas sentiasa lembap sepanjang eksperimen dijalankan.

*Make sure the cotton is always moist throughout the experiment.*

9. Adakah dapatan eksperimen yang anda peroleh boleh diterima? Jelaskan jawapan anda.

*Can the findings that you have obtained from the experiment be accepted? Explain your answer.*

Ya, kerana didapati semakin lama tempoh eksperimen, semakin bertambah ketinggian anak benih kerana anak benih mengalami pertumbuhan.

*Yes, because it was found that the longer the time of the experiment, the taller the seedlings as they underwent growth.*