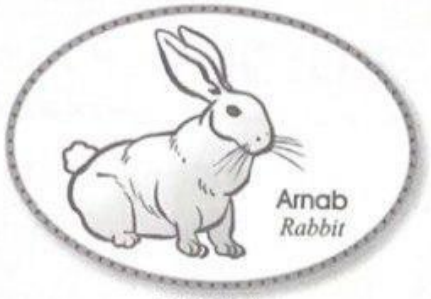
UNIT 1

KEMAHIRAN SAINTIFIK
SCIENTIFIC SKILLS

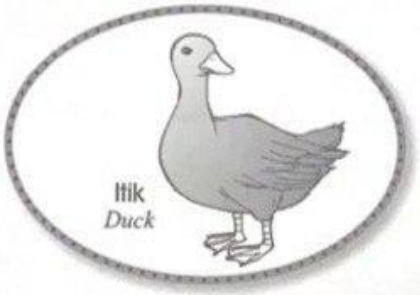
SOALAN SUBJEKTIF
SUBJECTIVE QUESTIONS

1 (a) Nyatakan persamaan dan perbezaan di antara Rajah 1 dengan Rajah 2.
State the similarities and differences between Diagram 1 and Diagram 2.

(i)



Rajah 1
Diagram 1



Rajah 2
Diagram 2

Persamaan :
Similarities :

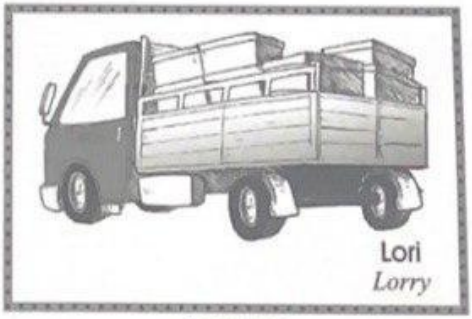
_____

Perbezaan :
Differences :

_____

(ii)

Rajah 1
Diagram 1



Rajah 2
Diagram 2

Persamaan :
Similarities :

_____

Perbezaan :
Differences :

_____

(b) Apakah **dua** kemahiran proses sains yang digunakan di (a)?

Tandakan ✓ jawapan kamu di dalam ruang kosong.

What are the **two** *science process skills used in* (a)*? Tick* ✓ *your answers in the blank space.*

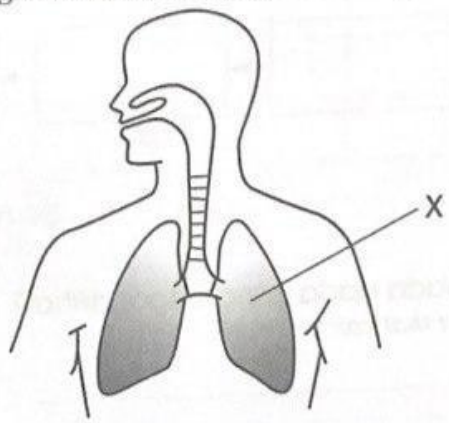
- ☐ Memerhati *Observing*
- ☐ Mengelas *Classifying*
- ☐ Mengukur dan menggunakan nombor *Measuring and using numbers*
- ☐ Membuat inferens *Making an inference*

UNIT 2

MANUSIA
HUMANS

SOALAN SUBJEKTIF
SUBJECTIVE QUESTIONS

1 Rajah di bawah menunjukkan organ yang terlibat dalam pernafasan manusia.
The diagram below shows the organ involved in human breathing.



(a) Namakan organ X.
Name the organ X.

X : _____

(b) Mengapakah organ X penting kepada manusia?
Why is organ X important to humans?

_____

(c) Nyatakan apa yang terjadi semasa bernafas.
State what happens during breathing.

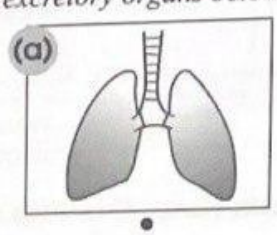
(i) Semasa menarik nafas, udara _____ peparu.
During inhalation, the air is _____ *the lungs.*

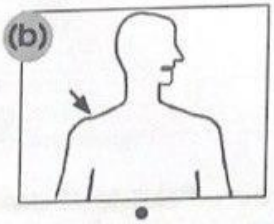
(ii) Semasa menghembus nafas, udara _____ peparu.
During exhalation, the air is _____ *the lungs.*

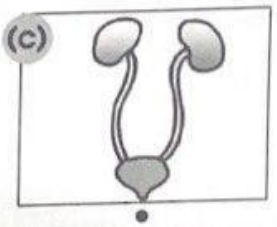
(d) Apakah hasil kumuh yang dikeluarkan oleh organ X?
What excretory product is released by organ X?

_____

2 Padankan organ perkumuhan di bawah dengan hasil kumuh yang dihasilkan.
Match the excretory organs below with the excretory product produced.



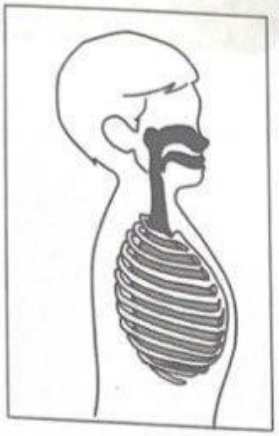




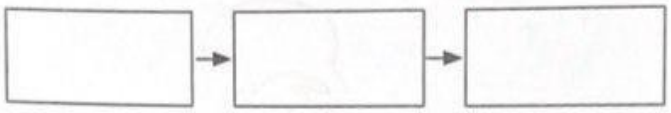
Air kencing *Urine*	Karbon dioksida *Carbon dioxide*	Peluh *Sweat*

3 Rajah menunjukkan gambar semasa menarik nafas dan menghembus nafas.
The diagram shows the pictures during inhalation and exhalation.

(a) Menarik nafas.
Inhalation.



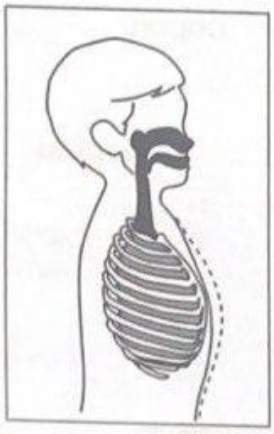
(i) Tuliskan laluan udara semasa menarik nafas.
Write the passage of air during inhalation.



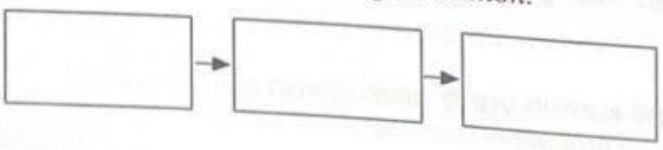
(ii) Apakah perubahan pada dada yang dapat dilihat?
What change on the chest that can be seen?

(iii) Terangkan kandungan oksigen di dalam udara yang disedut masuk.
Explain the oxygen content in the inhaled air.

(b) Menghembus nafas.
Exhalation.



(i) Tuliskan laluan udara semasa menghembus nafas.
Write the passage of air during exhalation.



(ii) Apakah perubahan pada dada yang dapat dilihat?
What change on the chest that can be seen?

(iii) Terangkan kandungan karbon dioksida di dalam udara yang dihembus keluar.
Explain the carbon dioxide content in the exhaled air.

4 Jadual di bawah menunjukkan masa yang diambil oleh Halim dalam lumba lari 200 m, 400 m, 600 m dan 800 m.
KBAT
The table below shows the time taken by Halim in the 200 m, 400 m, 600 m and 800 m races.

Jarak (m) *Distance (m)*	Masa yang diambil (s) *Time taken (s)*	Anggaran kadar pernafasan dalam masa 30 s *Estimated breathing rate within 30 s*
200	45	46
400	86	56
600		
800	150	72

(a) Tuliskan pemboleh ubah yang
Write down the variable that is

(i) dimanipulasikan :
manipulated : _____

(ii) bergerak balas :
responding : _____

(b) Apakah corak perubahan kadar pernafasan Halim dalam lumba lari itu?
What is the trend of the changes of Halim's breathing rate in the race?

_____

(c) Ramalkan masa yang diambil oleh Halim pada jarak 600 m.
Predict the time taken by Halim at a distance of 600 m.

_____

(d) Nyatakan **satu** inferens tentang masa yang diambil oleh Halim.
*State **one** inference about the time taken by Halim.*

_____

5 Tuliskan organ deria dan rangsangan yang terlibat bagi setiap aktiviti di bawah.
Write down the sensory organs and stimuli involved for each activity below.

(a)

Organ deria :
Sensory organ :

Rangsangan :
Stimuli :

(b)

Organ deria :
Sensory organ :

Rangsangan :
Stimuli :

(c)

Organ deria :
Sensory organ :

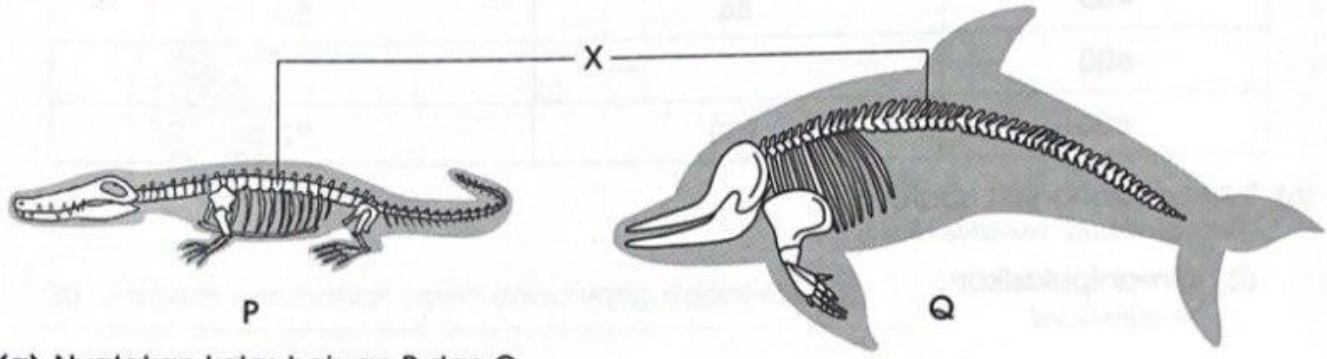
Rangsangan :
Stimuli :

UNIT 3

HAIWAN
ANIMALS

SOALAN SUBJEKTIF
SUBJECTIVE QUESTIONS

1 Rajah di bawah menunjukkan rangka bagi dua haiwan vertebrata.
The diagram below shows the skeleton for two vertebrates.



(a) Nyatakan kelas haiwan P dan Q.
State the class for animals P *and* Q.

(i) P : _____

(ii) Q : _____

(b) Berikan **dua** ciri khusus bagi kelas haiwan P.
Give **two** *specific characteristics for the class of animal* P.

_____

_____

(c) Apakah X?
What is X*?*

_____

(d) Apakah organ pernafasan bagi kedua-dua haiwan ini?
What is the breathing organ for both animals?

_____

(e) Tuliskan **dua** contoh haiwan lain yang bernafas melalui cara yang sama seperti haiwan di atas.
Write **two** *examples of other animals that breathe through the same way as the animals above.*

_____

_____

(f)

Katak boleh hidup di darat dan di air *Frog can live on land and in water*

Berdasarkan pernyataan di atas, bagaimanakah katak bernafas ketika berada di darat dan di air?
Based on the statement above, how do frogs breathe when on land and in the water?

_____

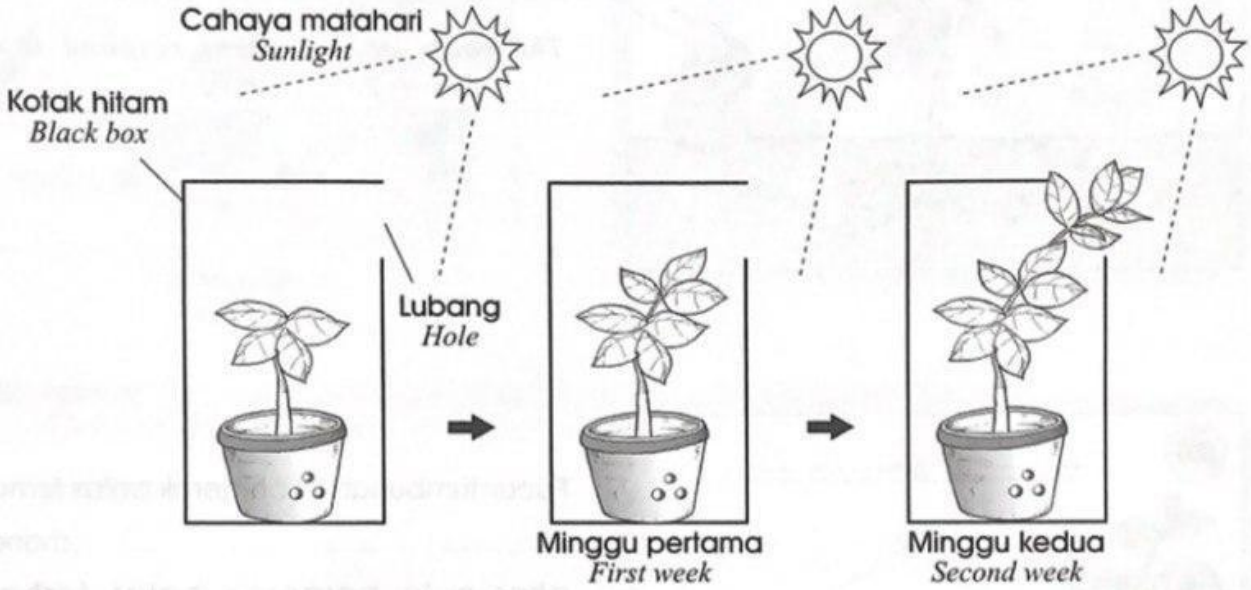
_____

UNIT 4

TUMBUH-TUMBUHAN
PLANTS

SOALAN SUBJEKTIF
SUBJECTIVE QUESTIONS

1 Suatu eksperimen dijalankan seperti yang ditunjukkan dalam rajah di bawah.
An experiment is conducted as shown in the diagram below.



(a) Nyatakan **satu** pemerhatian bagi eksperimen ini.
State **one** *observation for this experiment.*

_____

(b) Berikan **satu** inferens bagi pemerhatian kamu di **(a)**.
Give **one** *inference for your observation in* **(a)**.

_____

(c) Apakah yang akan terjadi jika tiada lubang pada kotak?
What would happen if there was no hole in the box?

_____

(d) Tuliskan inferens berdasarkan jawapan kamu di **(c)**.
Write an inference based on your answer in **(c)**.

_____

2 Daun hijau menjalankan proses fotosintesis. Lengkapkan.
Green leaves undergo the process of photosynthesis. Complete it.

Proses fotosintesis
Process of photosynthesis

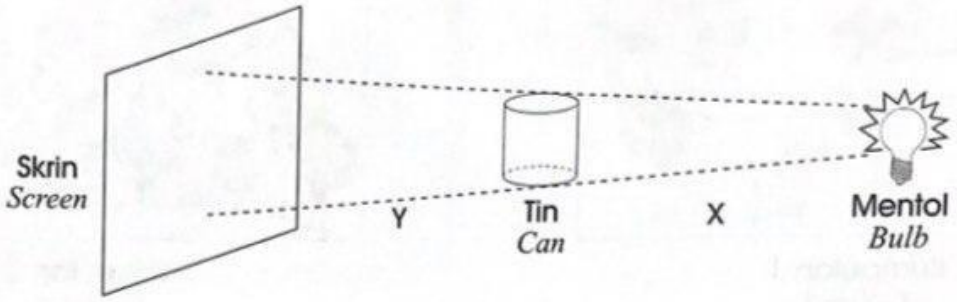
(a)	+	(b)	Cahaya *Light* → Klorofil *Chlorophyll*	(c)	+	(d)

UNIT 5

SIFAT CAHAYA
PROPERTIES OF LIGHT

SOALAN SUBJEKTIF
SUBJECTIVE QUESTIONS

1 Rajah menunjukkan suatu penyiasatan yang dijalankan oleh kumpulan Sains Cekap di dalam kelas.
The diagram shows an investigation conducted by the Science Cekap group in the classroom.



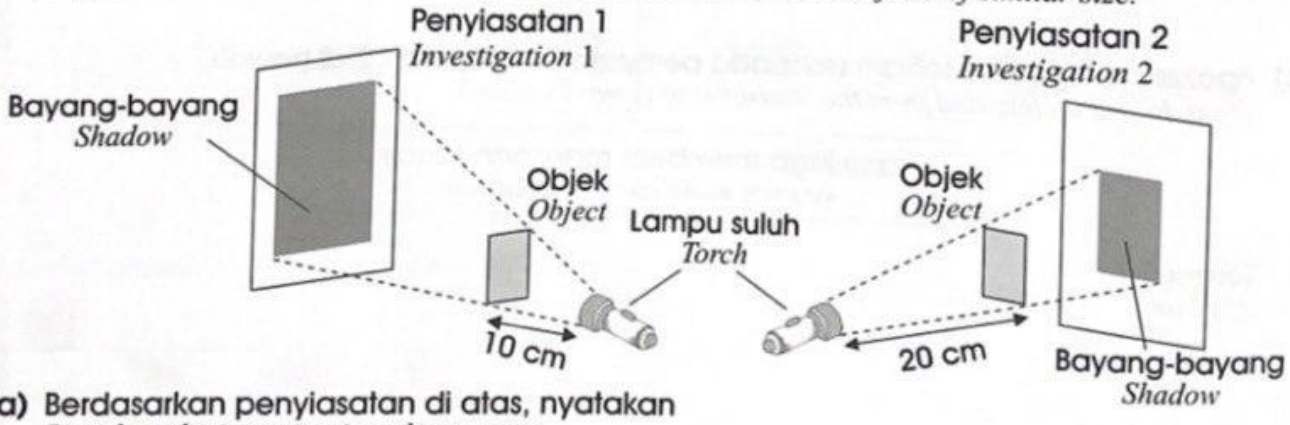
(a) Lukiskan bayang-bayang tin pada skrin di atas.
Draw the shadow of the can on the screen above.

(b) Tuliskan pemerhatian kamu jika
Write your observations if

(i) tin itu digerakkan ke X :
the can is moved to X : _____

(ii) tin itu digerakkan ke Y :
the can is moved to Y : _____

2 Penyiasatan 1 dan 2 menunjukkan sumber cahaya dituju ke arah objek yang sama saiz.
Investigations 1 and 2 show that the light source is directed toward objects of similar size.



(a) Berdasarkan penyiasatan di atas, nyatakan
Based on the investigation above, state

(i) pemboleh ubah dimalarkan :
constant variable : _____

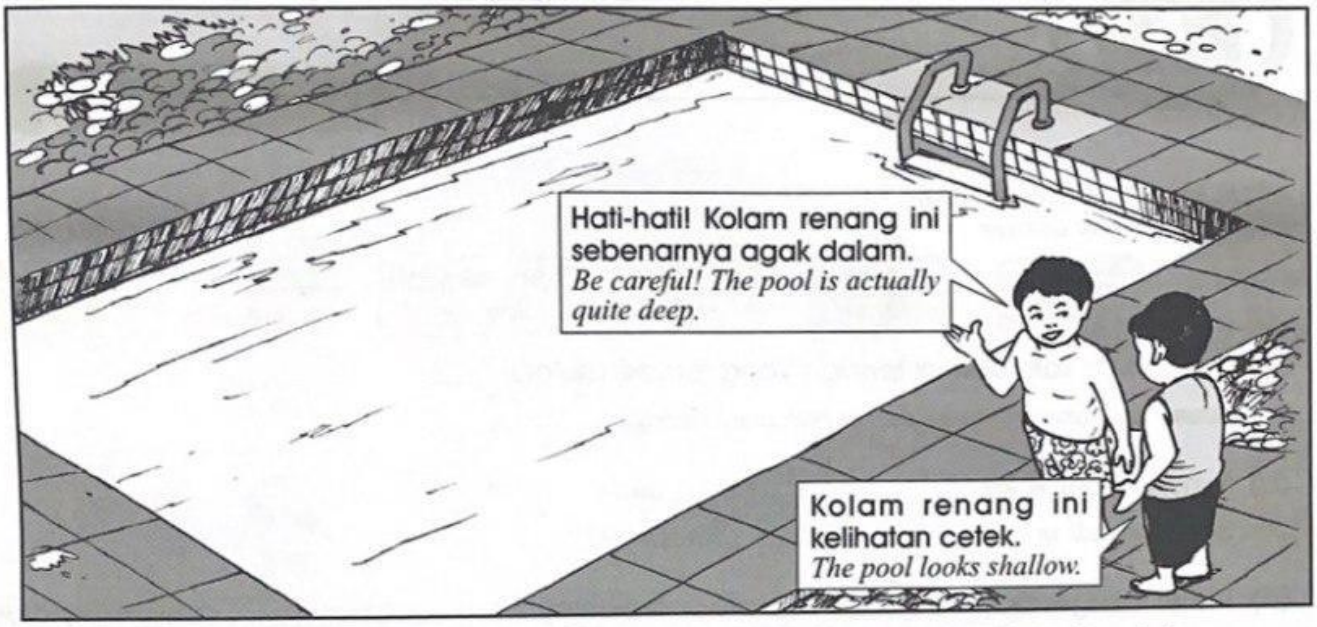
(ii) pemboleh ubah yang dimanipulasikan :
manipulated variable : _____

(iii) pemboleh ubah yang bergerak balas :
responding variable : _____

(b) Tuliskan hipotesis bagi penyiasatan di atas.
Write the hypothesis for the investigation above.

_____

3 Perhatikan rajah di bawah. Teliti dialog mereka.
KBAT *Observe the diagram below. Examine their dialogue.*



Mengapakah kolam itu kelihatan cetek daripada kedalaman sebenar? Berikan inferens.
Why does the pool appears shallower than the actual depth? Give an inference.

_____

_____

_____

4 Arahan : Lengkapkan peta titi dengan mengisi sifat-sifat cahaya berdasarkan rajah yang ditunjukkan.
Instruction : *Complete the bridge map by filling in the properties of light based on the diagram shown.*

i - THINK
Peta Pemikiran

PETA TITI
BRIDGE MAP

Rajah *Diagram*			
Sifat cahaya *Property of light*	(a)	(b)	(c)

UNIT 6

BUNYI
SOUND

SOALAN OBJEKTIF
OBJECTIVE QUESTIONS

1 Isikan jawapan yang **betul**.
*Fill in the **correct** answer.*

semua *all*	cecair *liquid*	gas *gas*	pepejal *solid*	dipantulkan *reflected*	getaran *vibration*	lebih cepat *faster*

(a) Bunyi ialah satu bentuk tenaga yang terhasil melalui _____.
Sound is a form of energy that is produced through _____.

(b) Bunyi bergerak ke _____ arah.
Sound travels in _____ directions.

(c) Bunyi bergerak paling cepat dalam medium _____, diikuti medium _____ dan paling perlahan dalam medium _____.
Sound travels fastest in the _____ medium, followed by _____ medium and the slowest in the _____ medium.

(d) Cahaya bergerak _____ daripada bunyi.
Light travels _____ than sound.

(e) Bunyi boleh _____ oleh permukaan yang keras.
Sound can be _____ by hard surfaces.

2 Berikut ialah beberapa alat yang menghasilkan bunyi. Tuliskan cara bunyi dihasilkan.
The following are some tools that produce sound. Write down how sound is produced.

goncangan *shaking*	ketukan *knocking*	tepukan *clapping*	tiupan *blowning*	gesekan *bowing*	petikan *plucking*

(a) 

(b) 

(c) 

(d) 

(e) 

(f)