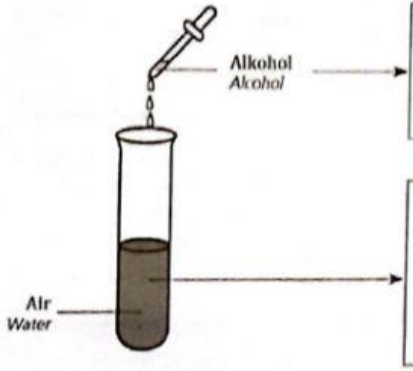
2 Rajah berikut menunjukkan beberapa eksperimen yang dijalankan untuk mengkaji ciri-ciri alkohol.
The following diagrams show some experiments carried out to study the properties of alcohol. TP3

Eksperimen I/ *Experiment I*:



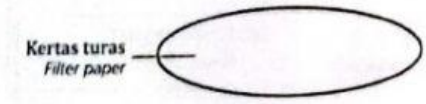
(*a*) Apakah warna alkohol?
What is the colour of alcohol?

_____

(*b*) Etanol dititiskan ke dalam air.
Ethanol is added dropwise into the water.
Adakah alkohol ini larut di dalam air?
Is this alcohol soluble in water?

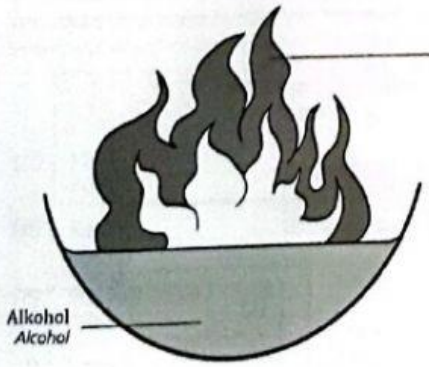
_____

Eksperimen II/ *Experiment II*:



(*c*) Kertas turas dilalukan di atas nyalaan api. Adakah jelaga dihasilkan?
A filter paper is passed over the flame. Is soot produced?

_____



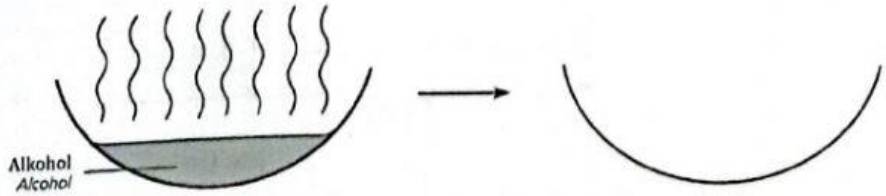
(*d*) Apakah warna nyalaan yang dihasilkan oleh alkohol?
What is the colour of the flame produced by the alcohol?

_____

(*e*) Apabila kayu uji menyala didekatkan ke alkohol, adakah alkohol mudah terbakar?
When a burning wooden splinter is placed near the alcohol, does the alcohol easily catch fire?

_____

Eksperimen III/ *Experiment III*:

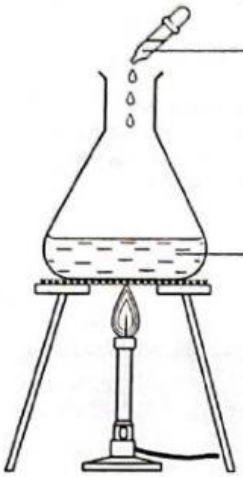


(*f*) Alkohol mudah _____. Alkohol menyejat dengan cepat apabila dibiarkan di dalam mangkuk sejat.
Alcohol is _____ *Alcohol evaporates easily when left in the evaporating dish.*

LIVEWORKSHEETS

3 Rajah berikut menunjukkan proses pengesteran. Isikan jawapan dalam ruangan yang disediakan. TP2
The following diagram shows the esterification process. Fill in the answer in the space provided.

Alkohol *Alcohol* + Asid karboksilik *Carboxylic acid* —Asid sulfurik pekat / *Concentrated sulphuric acid*→ (*a*) _____ + Air *Water*



(*b*) _____

(*c*) _____ + _____

Ciri ester yang terhasil:
The characteristic of ester produced:
(*d*) _____

4 Berikan **lima** kegunaan alkohol dalam kehidupan harian. TP3
*Give **five** uses of alcohol in daily life.*

Kegunaan alkohol
Uses of alcohol

(*a*)

(*b*)

(*c*)

(*d*)

(*e*)

Kesan pengambilan alkohol secara berlebihan

LIVEWORKSHEETS

5.4 Lemak
Fats

Buku Teks M/s 157 – 160

S.P: 5.4.1 – 5.4.3

1 Gariskan jawapan yang betul bagi ciri-ciri lemak tepu dan lemak tak tepu. TP1
Underline the correct answer for the characteristics of saturated fats and unsaturated fats.

Lemak tepu *Saturated fats*	Ciri-ciri *Characteristics*	Lemak tak tepu *Unsaturated fats*
(Haiwan, Tumbuhan) *(Animals, Plants)*	**Sumber** *Source*	(Haiwan, Tumbuhan) *(Animals, Plants)*
(Tinggi, Rendah) *(High, Low)*	**Takat lebur** *Melting point*	(Tinggi, Rendah) *(High, Low)*
(Tinggi, Rendah) *(High, Low)*	**Takat didih** *Boiling point*	(Tinggi, Rendah) *(High, Low)*
(Cecair, Pepejal) *(Liquid, Solid)*	**Keadaan pada suhu bilik** *State at room temperature*	(Cecair, Pepejal) *(Liquid, Solid)*
(Tinggi, Rendah) *(High, Low)*	**Kandungan kolesterol** *Cholesterol content*	(Tinggi, Rendah) *(High, Low)*

2 Tentukan sama ada bahan berikut adalah lemak tepu atau lemak tak tepu. TP1
Determine whether the following substances is a saturated fat or an unsaturated fat.

	Bahan *Substance*	Lemak tepu/ Lemak tak tepu *Saturated fat/ Unsaturated fat*
(*a*)	Mentega *Butter*	
(*b*)	Keju *Cheese*	
(*c*)	Minyak kelapa sawit *Palm oil*	
(*d*)	Lemak ayam *Chicken fat*	
(*e*)	Minyak sapi *Ghee*	
(*f*)	Minyak jagung *Corn oil*	
(*g*)	Minyak zaitun *Olive oil*	
(*h*)	Daging *Meat*	
(*i*)	Minyak biji bunga matahari *Sunflower seed oil*	
(*j*)	Minyak bijan *Sesame oil*	

LIVEWORKSHEETS

3 Padankan kesan pengambilan makanan yang mengandungi lemak berlebihan terhadap kesihatan. TP1
Match the effects of eating food containing excessive fats on health.

Kesan pengambilan makanan yang mengandungi lemak berlebihan terhadap kesihatan
Effects of eating food containing excessive fats on health

Tekanan darah tinggi *High blood pressure*
Sirosis hati *Liver cirrhosis*
Gastrik *Gastric*
Menjejaskan keseimbangan badan *Affects body balance*
Arteri tersumbat *Clogged arteries*
Melambatkan gerak balas *Slows down the response*
Strok *Stroke*
Menjejaskan percakapan *Affects speech*
Arteriosklerosis *Arteriosclerosis*
Mengakis dinding perut *Corrosion of stomach wall*

5.5 Minyak Sawit
Palm Oil

Buku Teks H/s 160 – 171

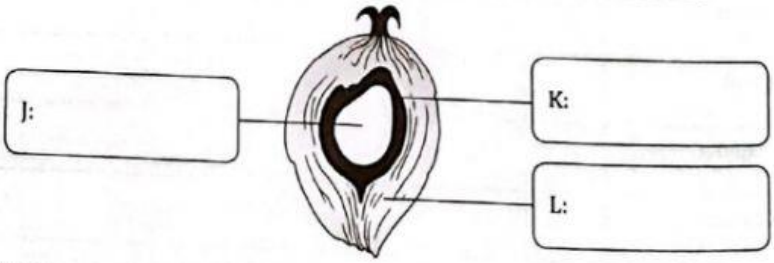
S.P: 5.5.1 – 5.5.12

1 (*a*) Labelkan struktur buah kelapa sawit berikut dengan menggunakan perkataan yang diberi. TP2
Label the following oil palm structure using the given words.

Sabut *Pulp* | Isirung *Kernel* | Tempurung *Shell*

Eksperimen 5.1

PAK-21



(*b*) Bahagian yang manakah tidak mengandungi minyak sawit? TP2
Which part does not contain oil?

_____

(*c*) Bahagian yang manakah mengandungi minyak sawit yang paling berkualiti? TP2
Which part contains the best quality palm oil?

_____

LIVEWORKSHEETS

2 (*a*) Namakan peringkat dalam proses pengekstrakan minyak sawit berdasarkan penerangan yang diberi. TP2
Name the stages in the extraction process of palm oil based on the given explanations.

P	
Buah kelapa sawit dipisahkan daripada tandannya *The oil palm fruits are separated from the bunches*	

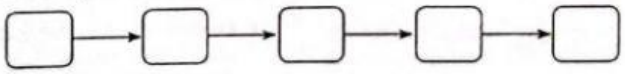
Q	
Sabut diperah untuk mendapatkan minyak manakala tempurung dan isirung dihancurkan untuk mendapatkan minyak isirung. *The pulp is squeezed to get oil whereas the shell and kernel are crushed to obtain kernel oil.*	

R	
Buah kelapa sawit dihancurkan oleh mesin pencerna untuk memisahkan sabut, tempurung dan isirung. *The oil palm fruits are crushed by the digestive machine to separate the pulp, shell and kernel.*	

S	
Stim digunakan untuk menghilangkan bau dan menyingkirkan asid. Karbon teraktifkan digunakan untuk melunturkan warna. *Steam is used to remove adour and eliminate acid. Activated carbon is used to decolourised.*	

T	
Buah distimkan untuk membunuh mikroorganisma. *Fruits are steamed to kill microorganisms.*	

(*b*) Susun proses pengekstrakan di atas dalam urutan yang betul. TP3
Arrange the extraction process above in the correct sequence.



3 Isi tempat kosong dengan menyatakan kandungan nutrisi dalam minyak kelapa sawit.
Fill in the blanks by stating the nutrient content in palm oil. TP2

Proses pembuatan sabun dan tindakan pencucian sabun

(*a*) Mengandungi vitamin _____ dan _____
Contains vitamin _____ and _____

(*b*) Mengandungi lemak _____
Contains _____ fats

(*c*) _____ kolesterol
_____ *cholesterol*

LIVEWORKSHEETS