

Appendix B

Advanced Genetic Concepts Survey

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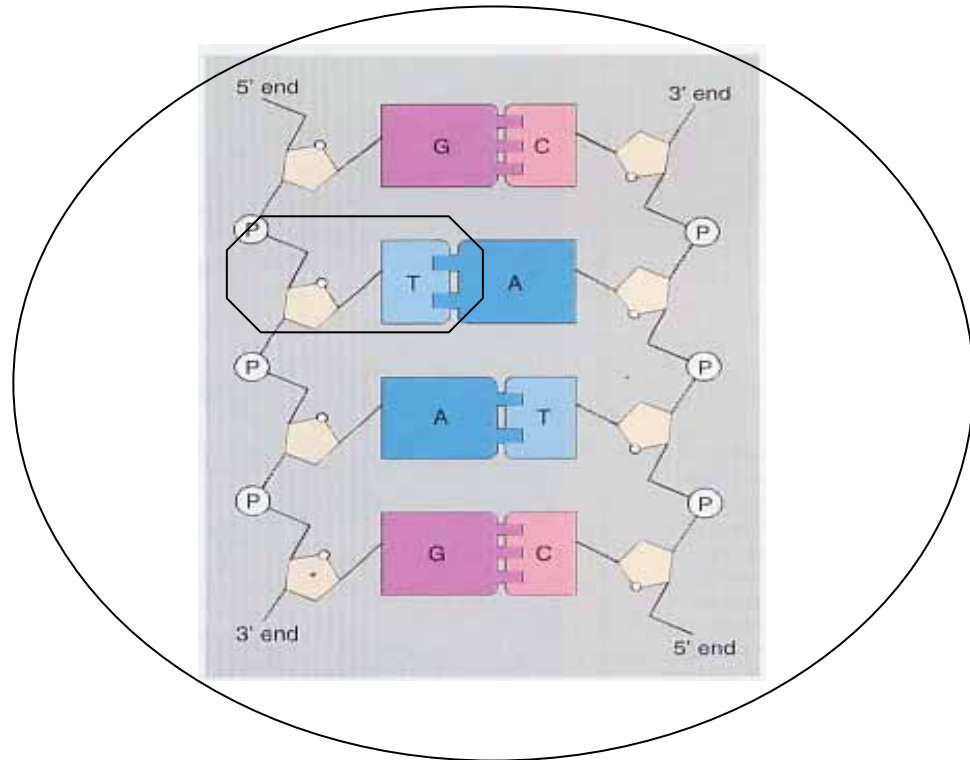
Question 1: In case of 'Tsunami' situations in the southern part of Thailand, many people passed away. It took time to pick up the bodies. Most of the bodies changed and could not identify their identity from their faces. What is the thing which can help scientist to identify the bodies? And why do you think like that?


Question 2: An elected official who looks after the general welfare of the people in a district wanted to find out his son, who was taken away when he was young. From these DNA finger prints of the official, his wife, and four men, who referred to be his son, who is the official's son? And why do you think like that?

The Official	Official's wife	Mr. Kung	Mr. Keng	Mr. Kob	Mr. Kwang
_____			_____	_____	
_____		_____			_____
	_____	_____	_____		_____
_____				_____	_____
	_____	_____	_____		
_____	_____	_____		_____	_____
		_____	_____	_____	
	_____		_____	_____	_____
_____					_____

Explain your reason

Question 3: Please see the picture and answer the following questions



Question 3.1: Is DNA in the eight corners round  in the picture?

☐ Yes

☐ No

If you think that it is not DNA, please identify what is it?

Why do you think like that?

Question 3.2: Is DNA in the circle of the picture?



☐ Yes

☐ No

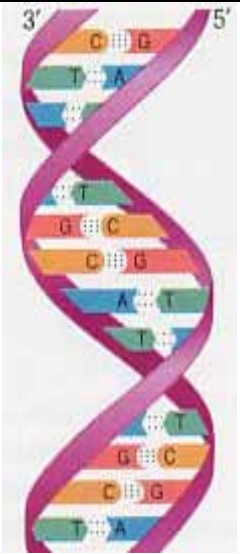
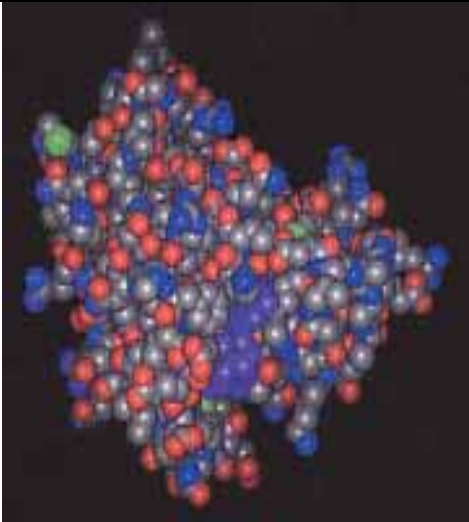
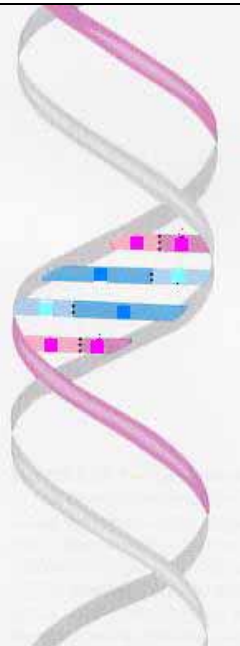
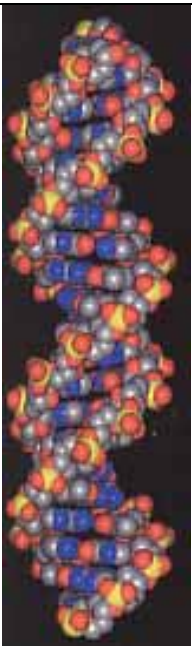
If you think that it is not DNA, please identify what is it?

Why do you think like that?

Question 4: What is the relationship among chromosomes, cells, genes, nucleus, and DNA? (You can draw or explain)

What are the relationships among them with genetic inheritance?

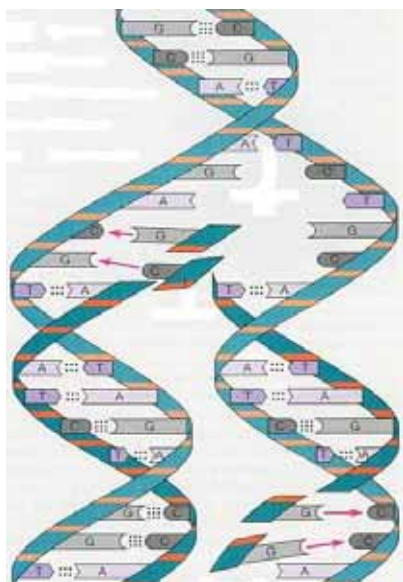
Question 5: From these four pictures, which one(s) is/are DNA? Why do you think like that?

<p>a.</p> 	<p>b.</p> 
<p>c.</p> 	<p>d.</p> 

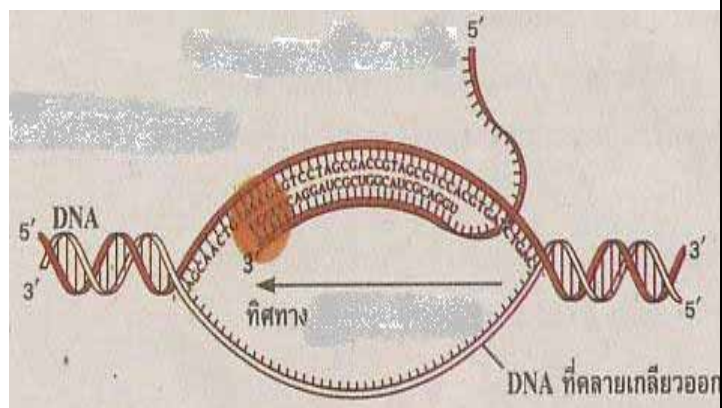
Explain your reason

Question 6: From these four pictures, which one(s) is/are DNA replication? Why do you think like that?

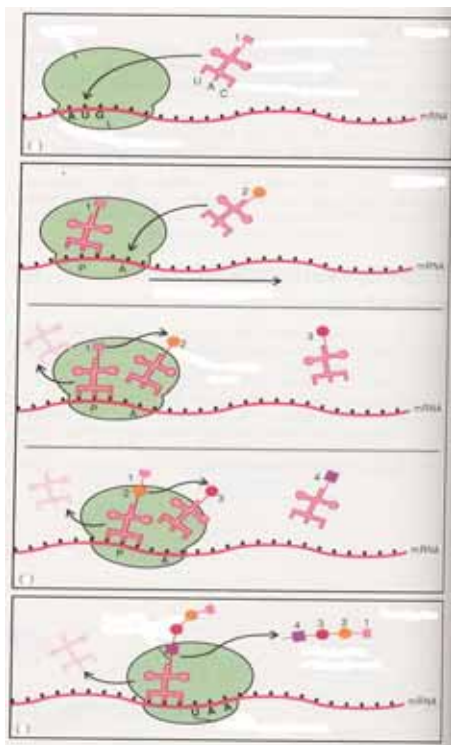
a.



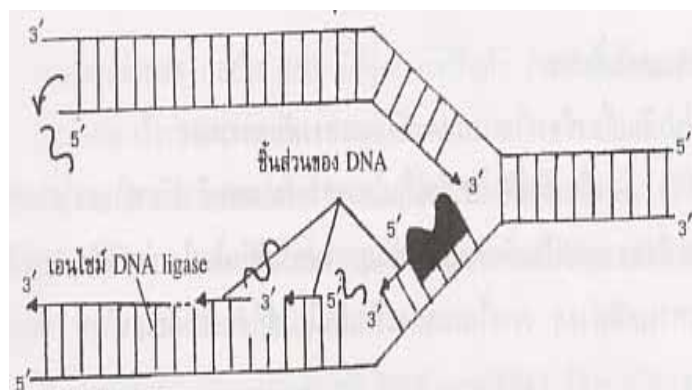
b.



c.

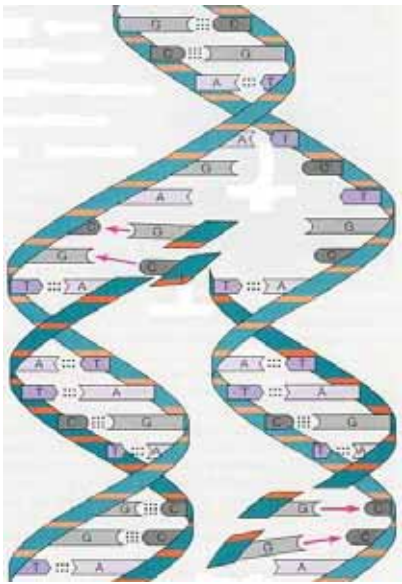
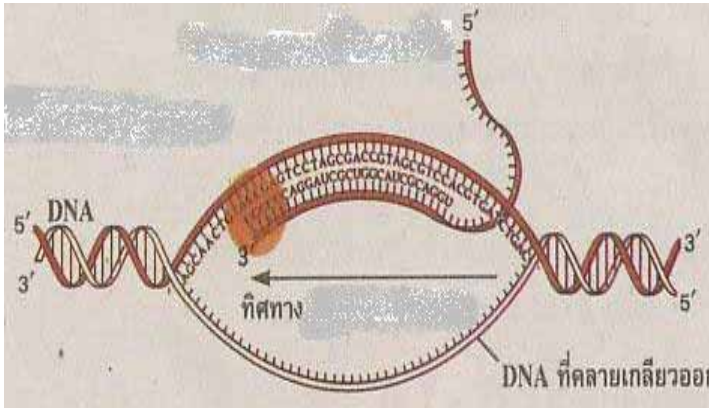
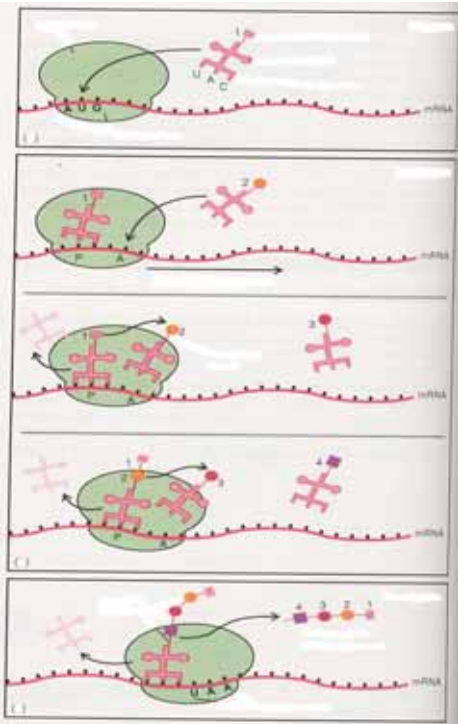
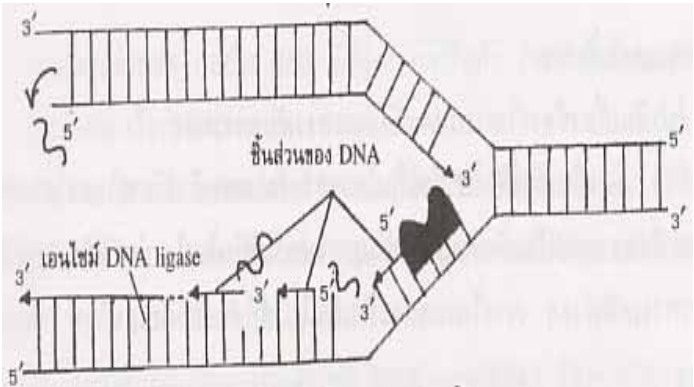


d.



Explain your reason

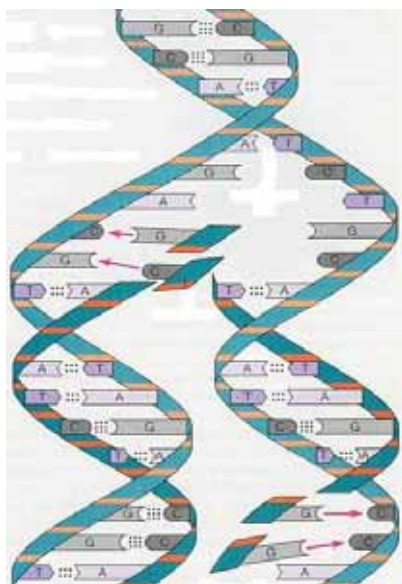
Question 7: From these four pictures, which one(s) is/are DNA transcription or RNA synthesis? Why do you think like that?

<p>a.</p> 	<p>b.</p> 
<p>c.</p> 	<p>d.</p> 

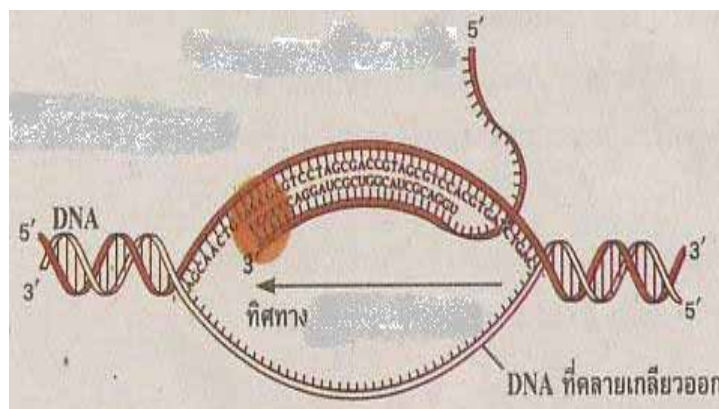
Explain your reason

Question 8: From these four pictures, which one(s) is/are DNA translation? Why do you think like that?

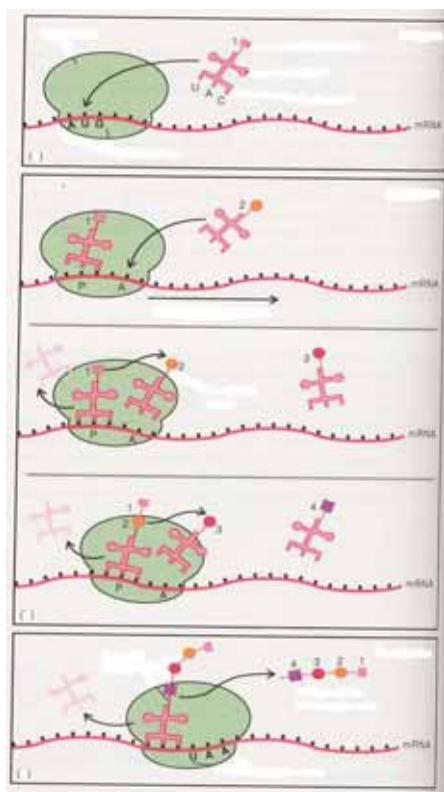
a.



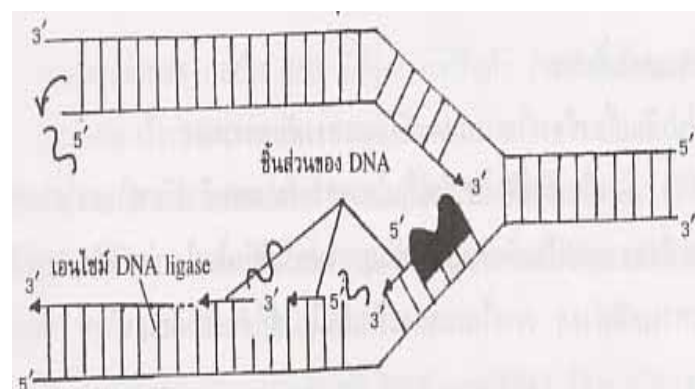
b.



c.



d.



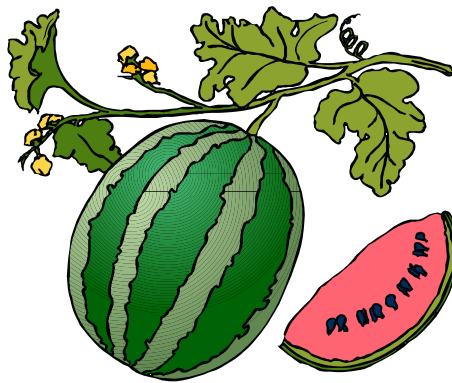
Explain your reason

Question 9: In the present time, there are a number of projects conducted in order to find the genomes of living organisms.

a. What is genome?

b. Why do scientists in many countries need to know about the genomes of living organisms?

Question 10: Morakot liked the sweet, big watermelons in her grand mother's garden. She asked her grandmother for some watermelon seeds and grew them in her garden. However, her watermelons were small and were not sweet. Her mother told that her that the watermelons were mutated. If Morakot's mother is right, what were the causes of the mutation?



Question 11: If we referred to 'a rat that passed genetic engineering process' what are the scientific process that it passed? Please explain.

Question 12: What are the examples of genetic engineering application?
(Give at least two examples)

1.

2.

3.

😊 Thank You 😊