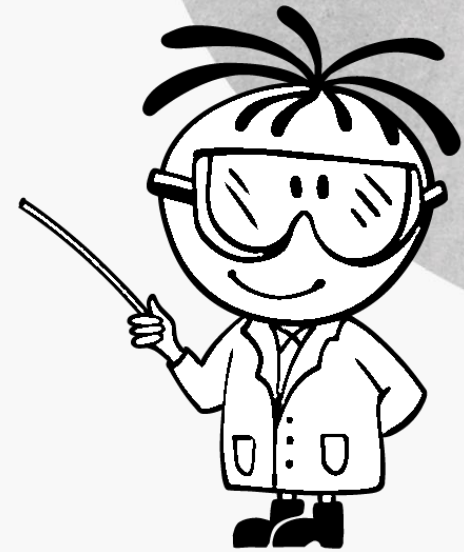


GRAAD 12

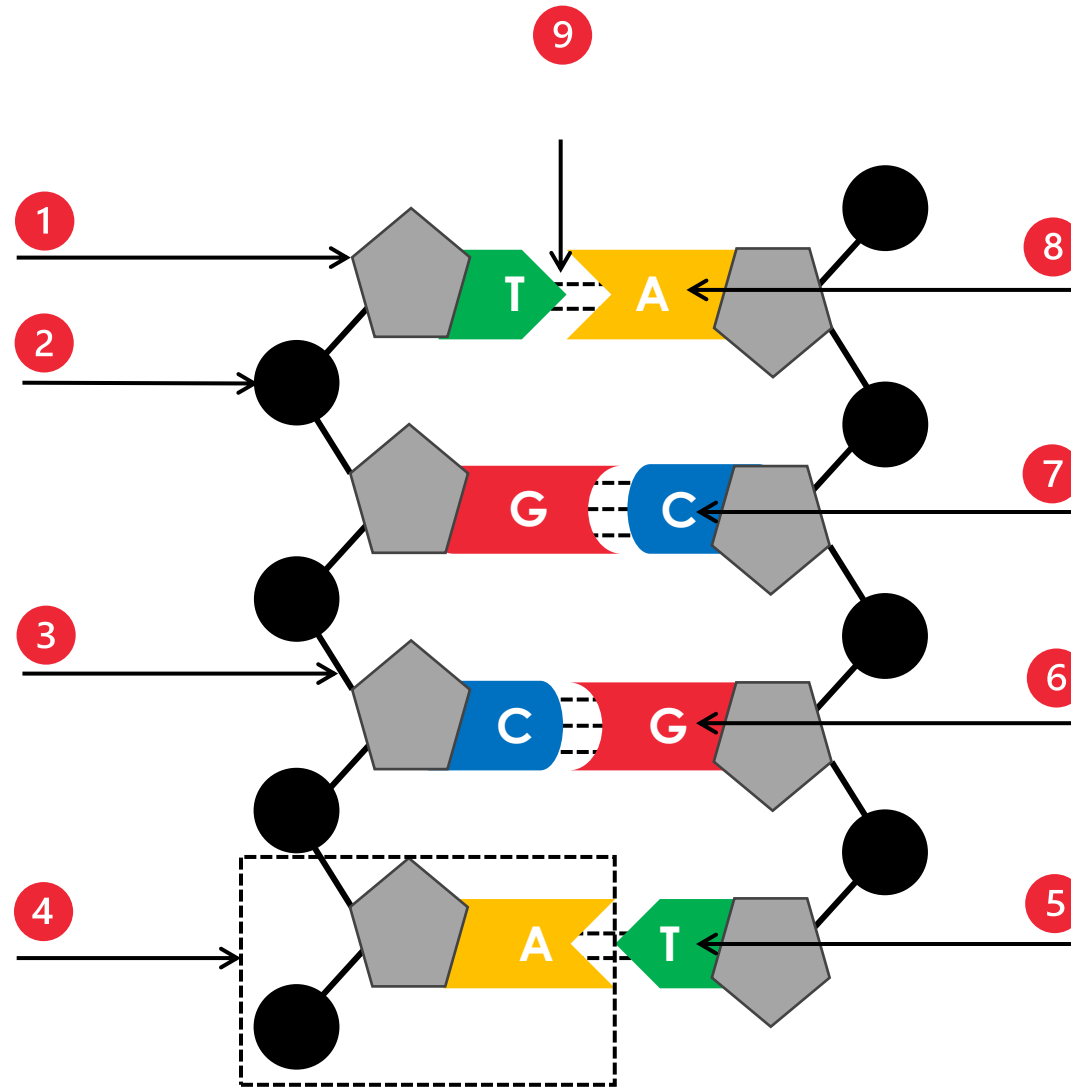
KODE VAN LEWE

HERSIENING

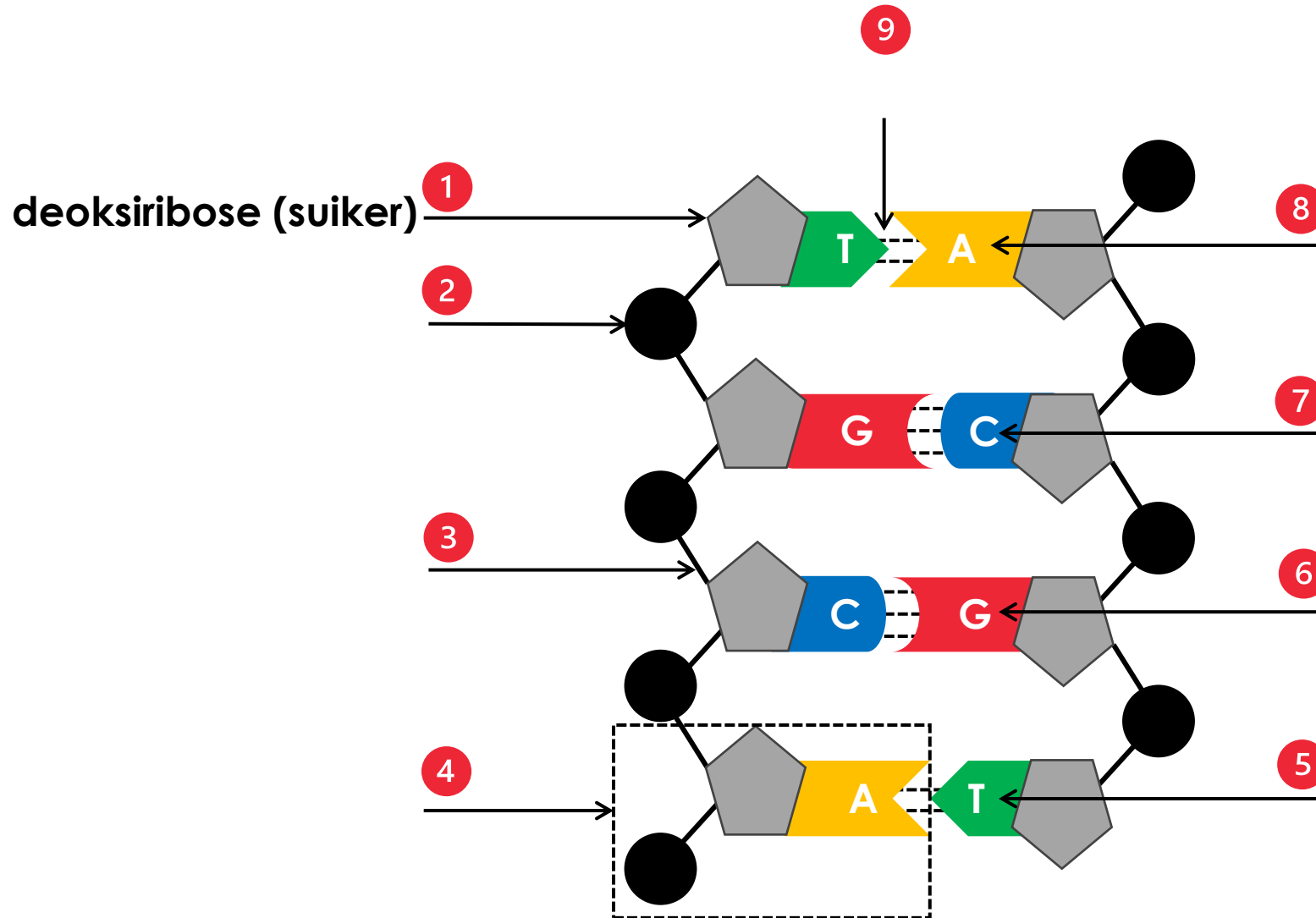


DNA-STRUKTUUR

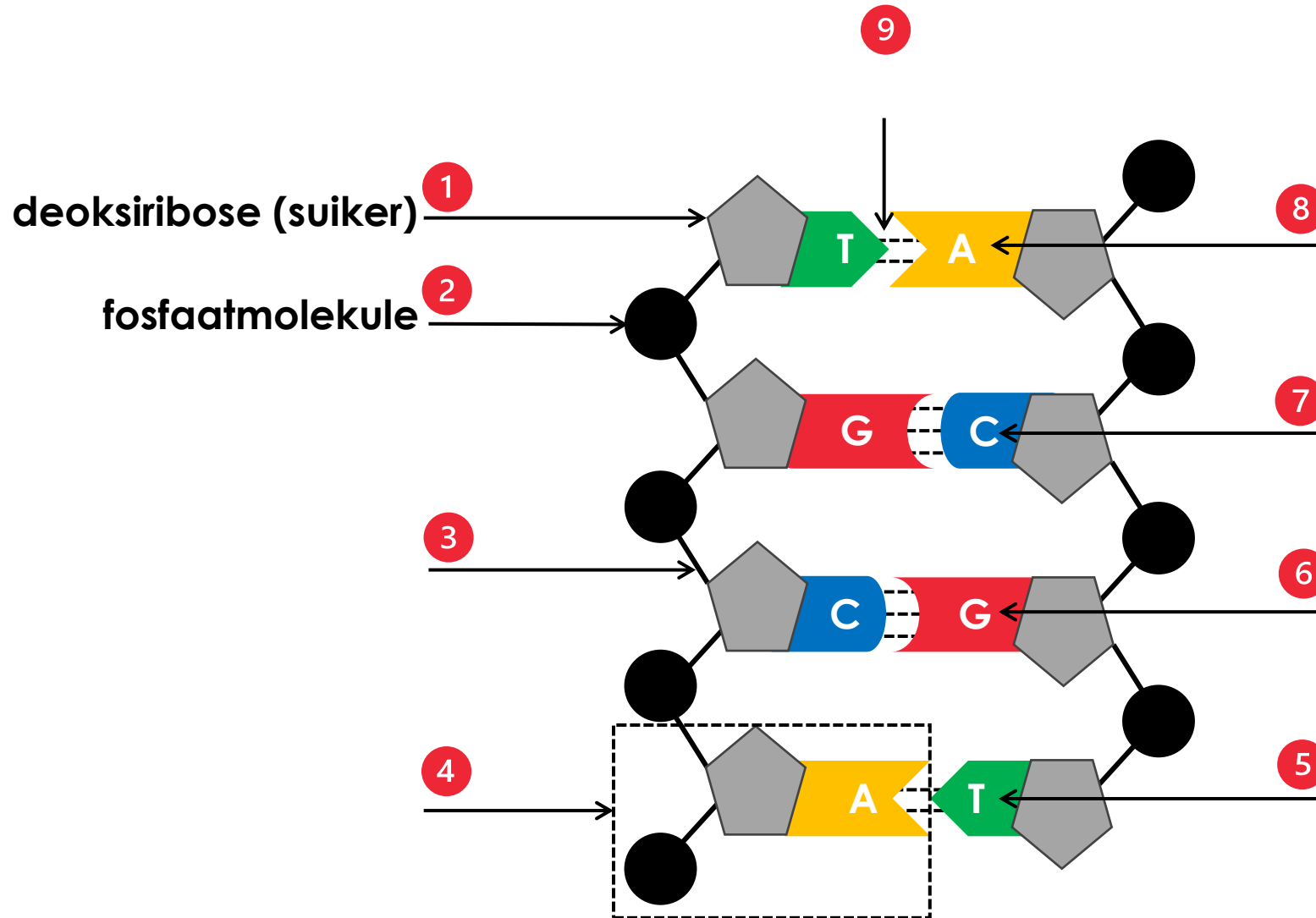
Verskaf byskrifte vir die struktuur van DNA.



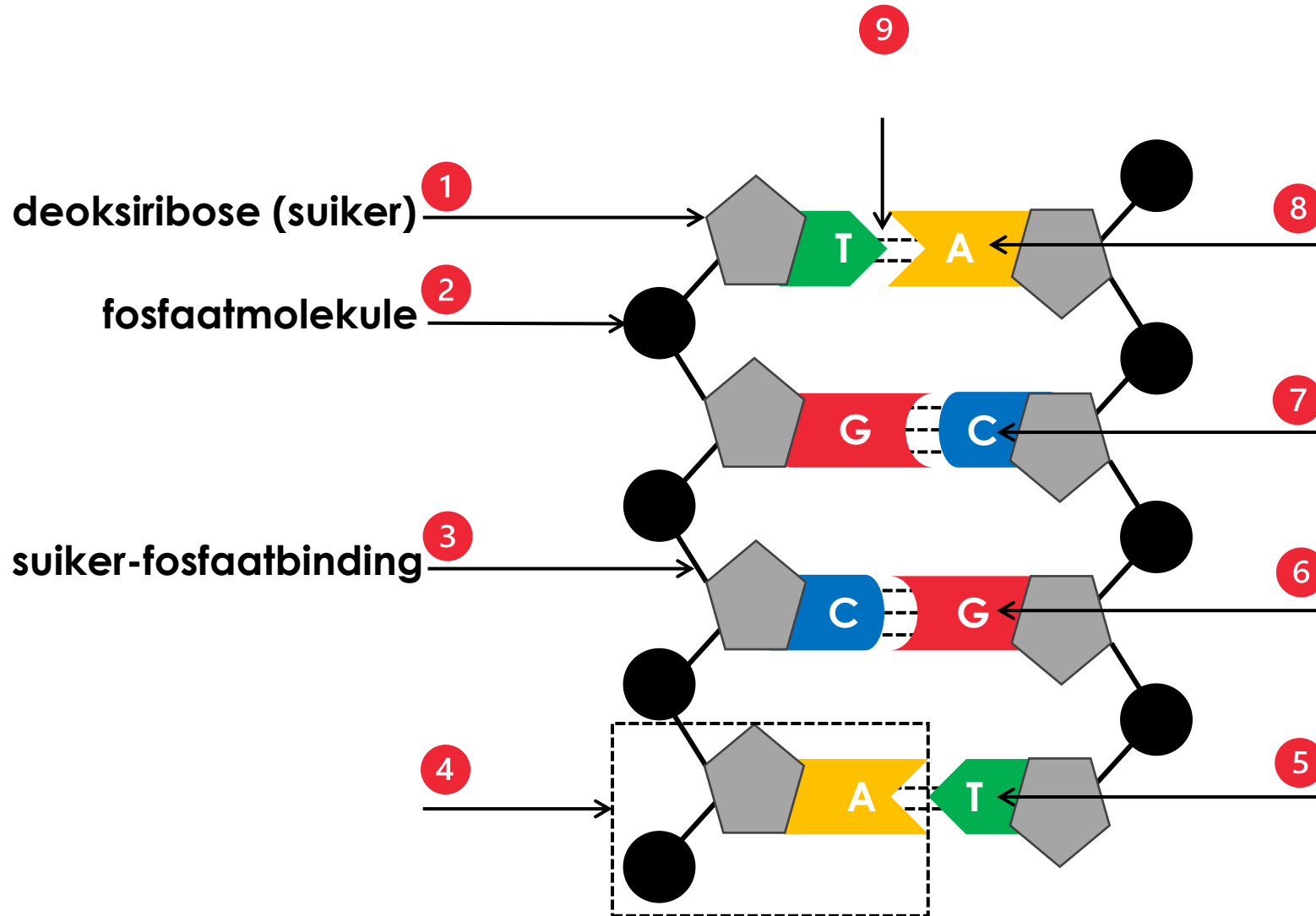
Verskaf byskrifte vir die struktuur van DNA.



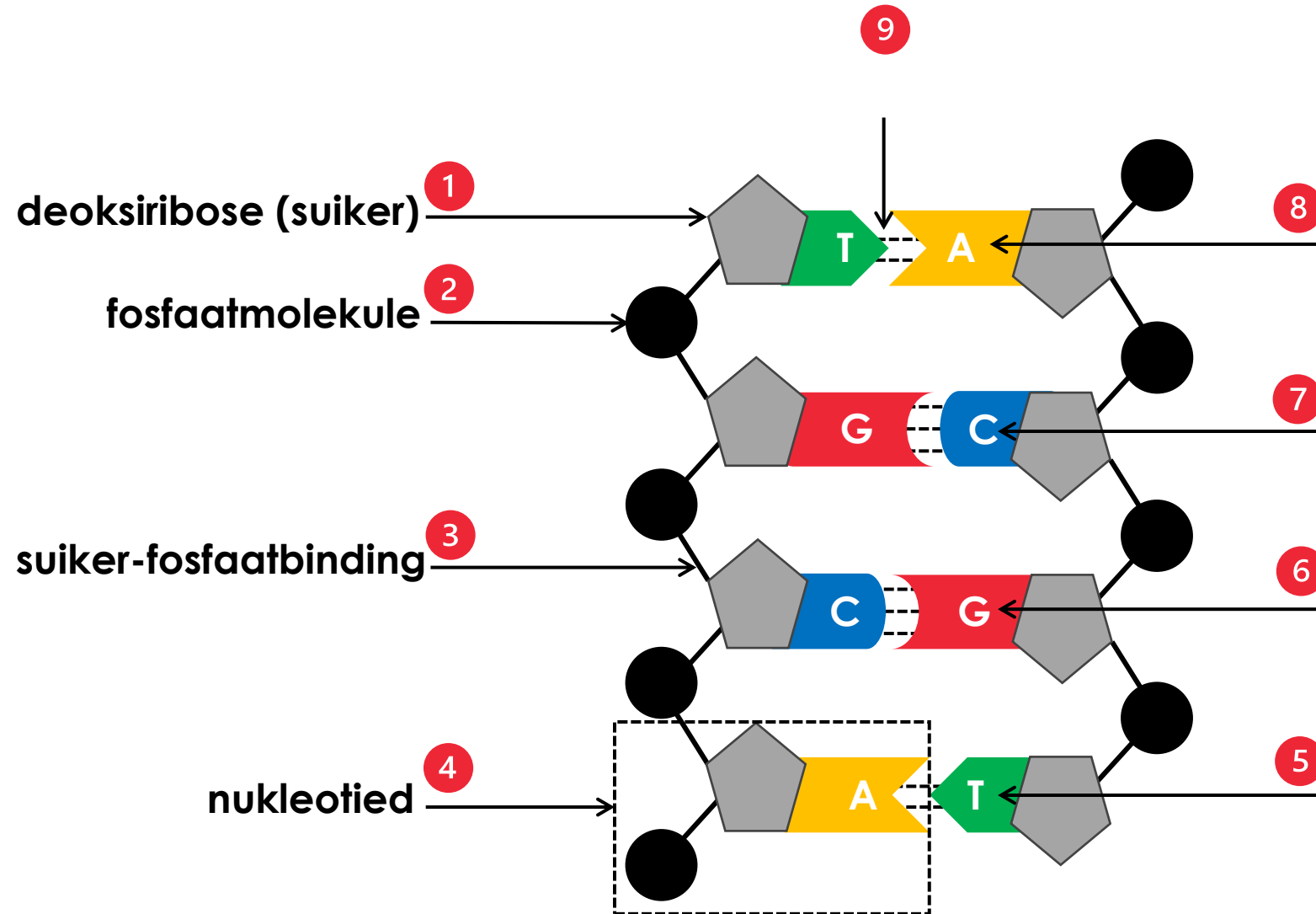
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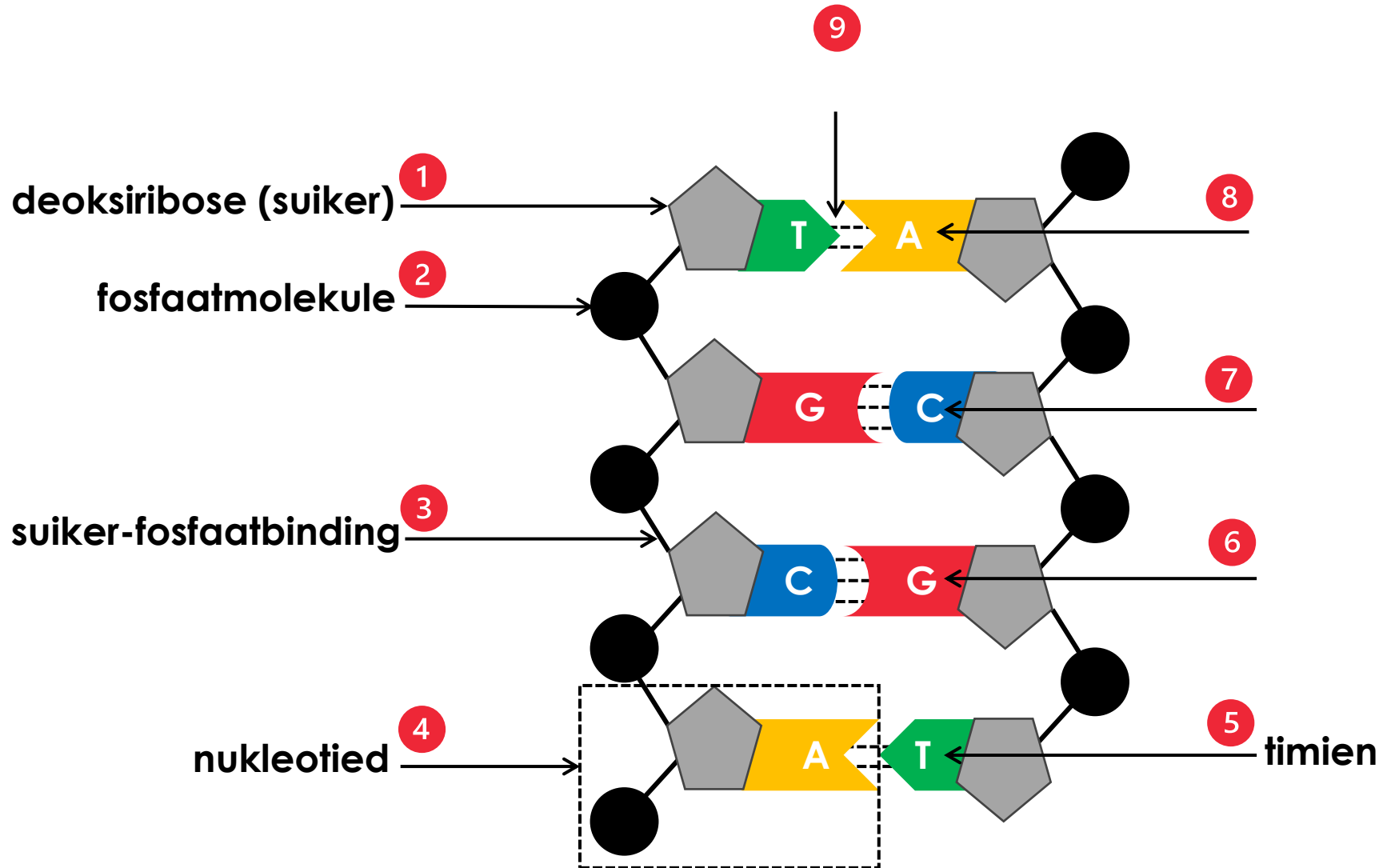
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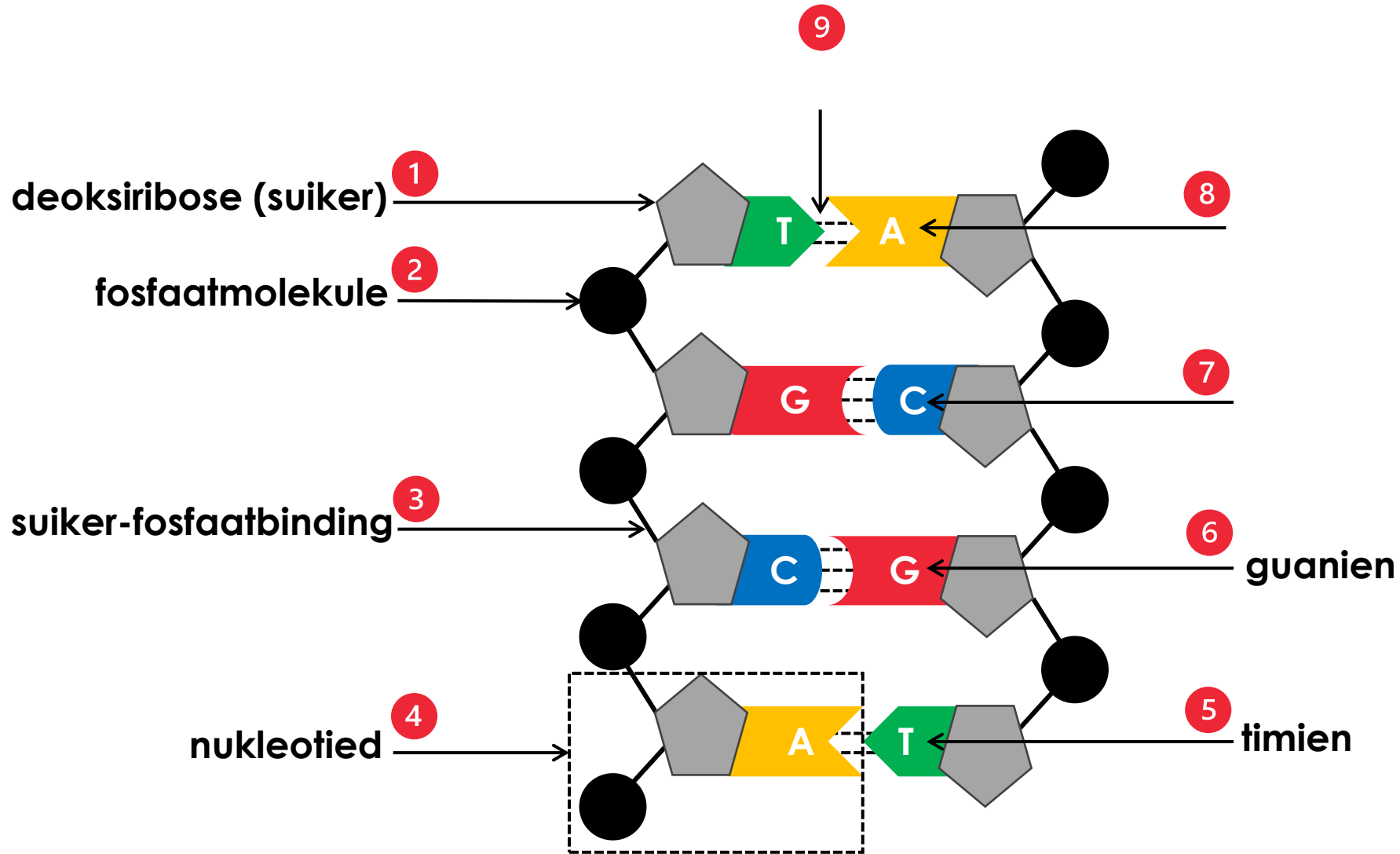
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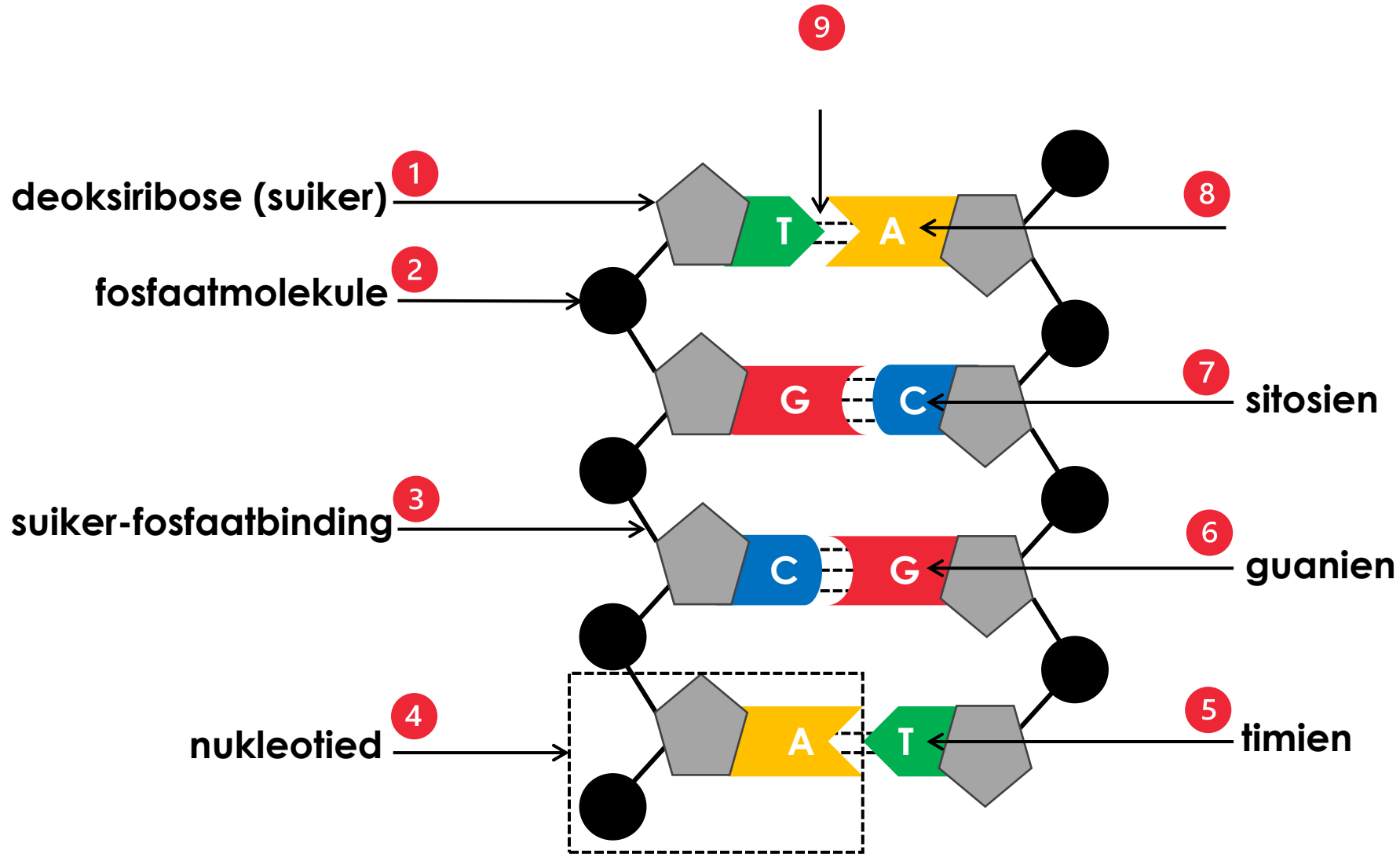
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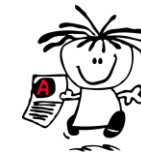
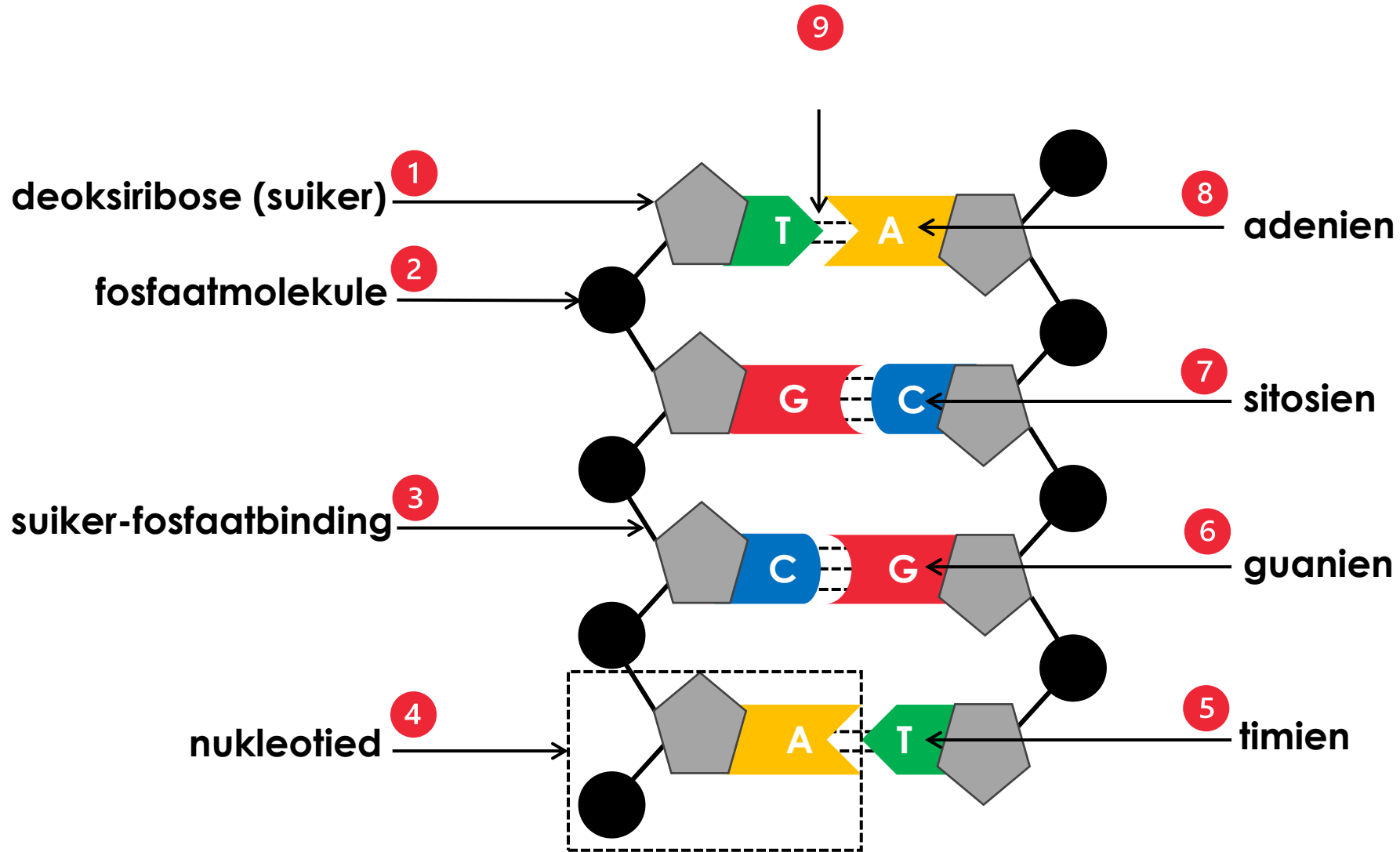
Verskaf byskrifte vir die struktuur van DNA.



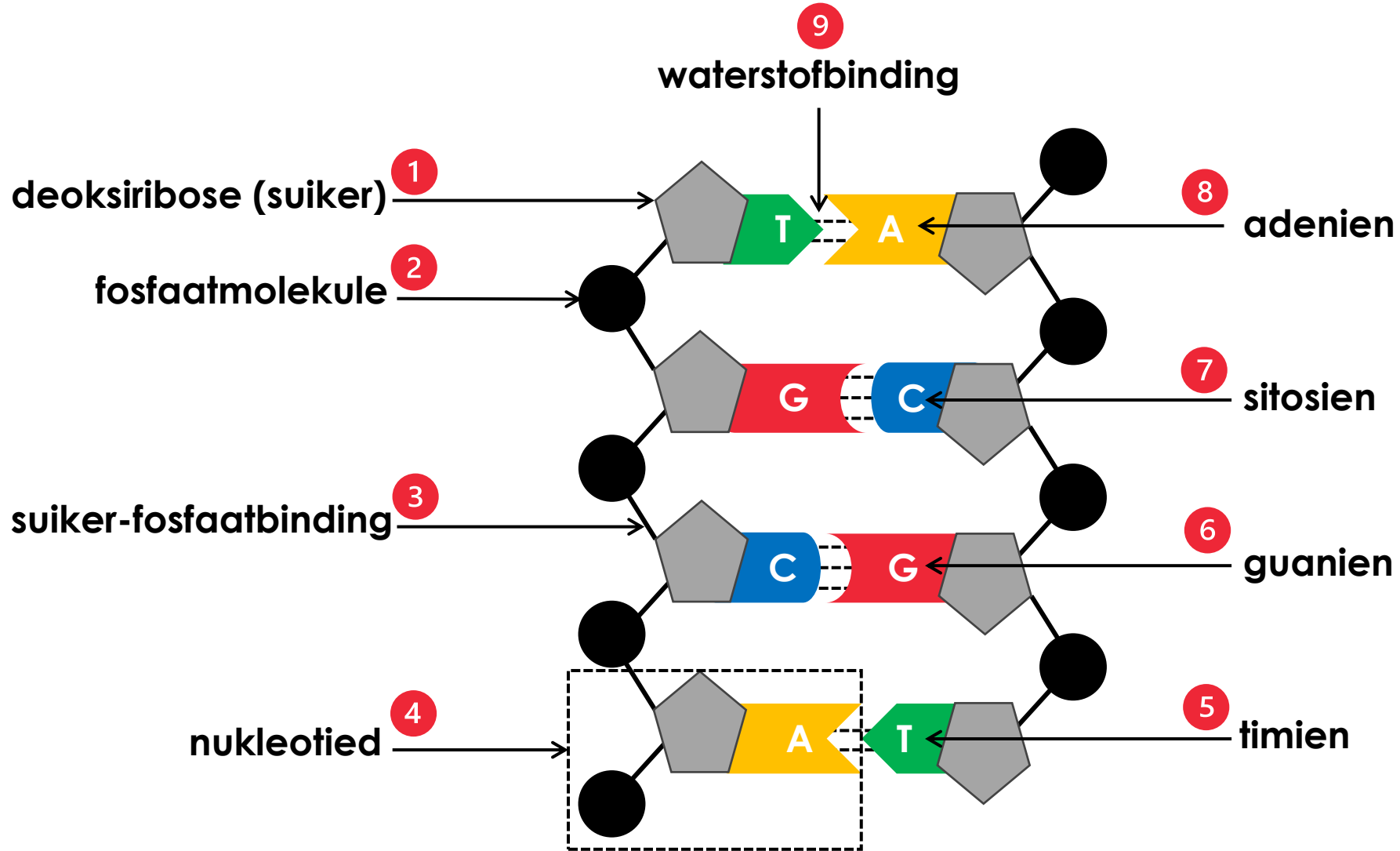
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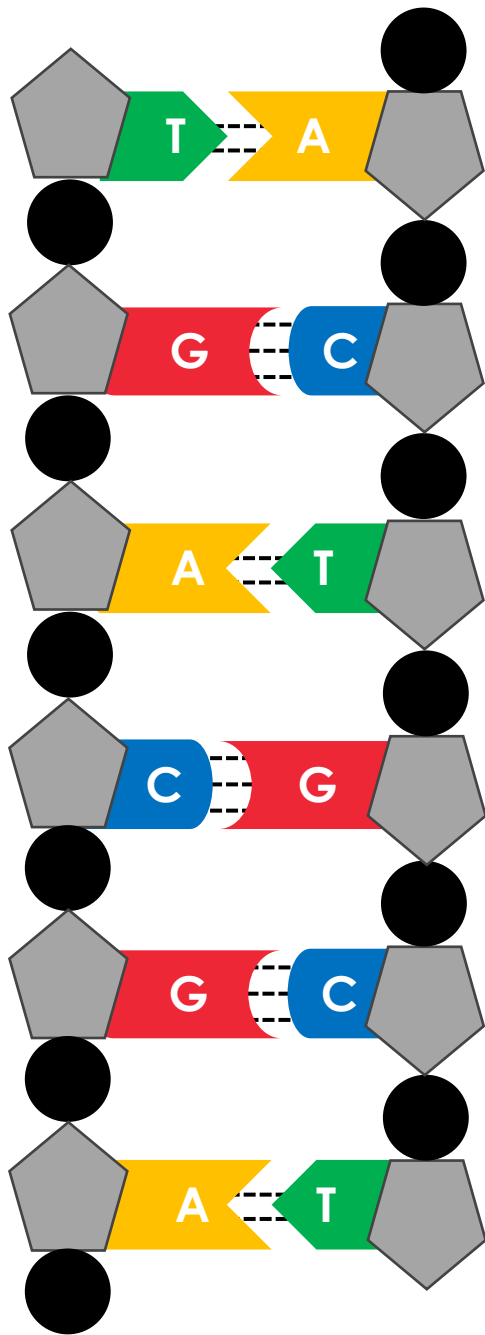
Verskaf byskrifte vir die struktuur van DNA.

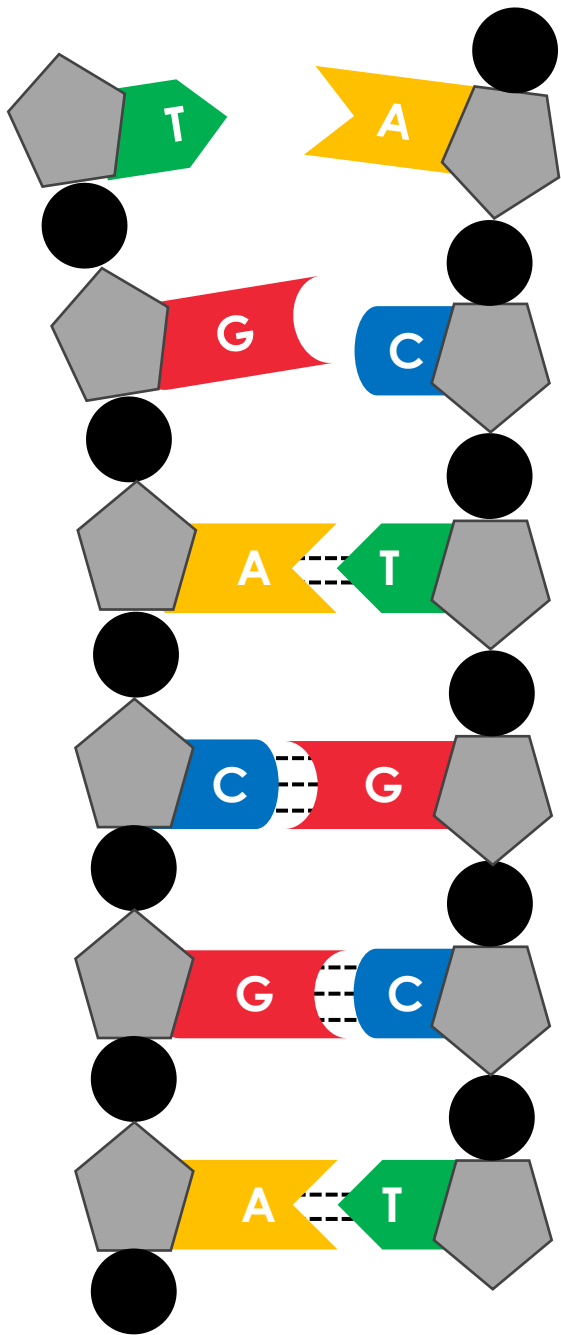


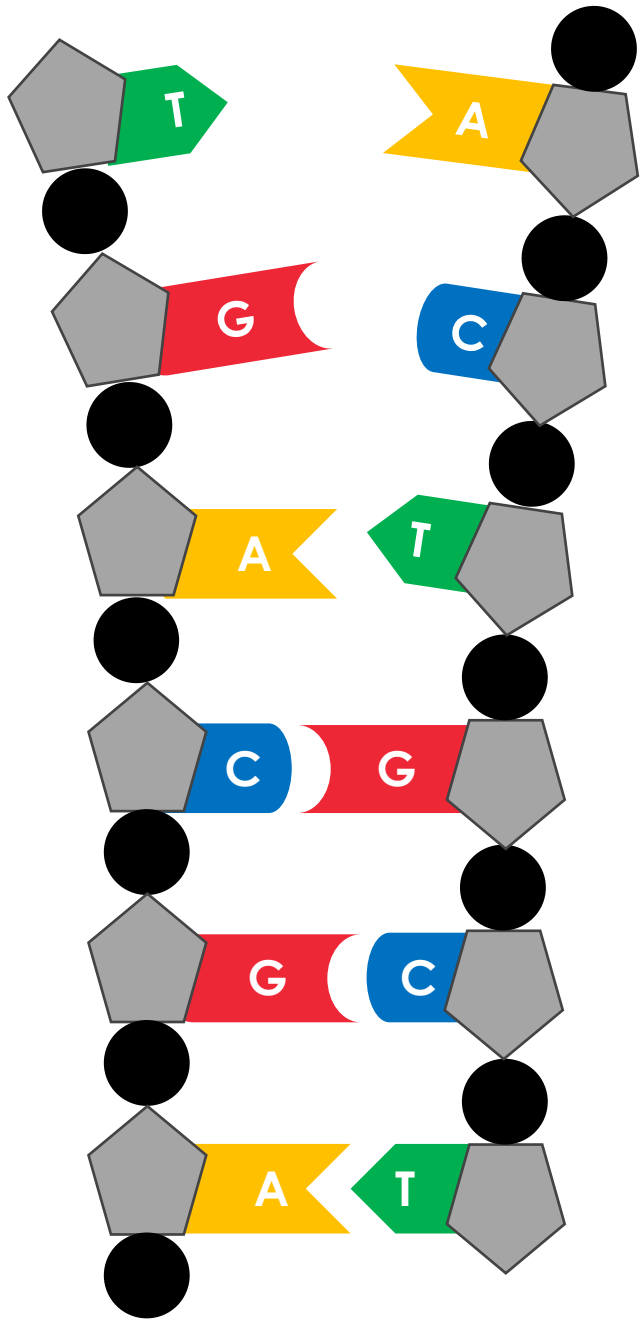
Verskaf byskrifte vir die struktuur van DNA.

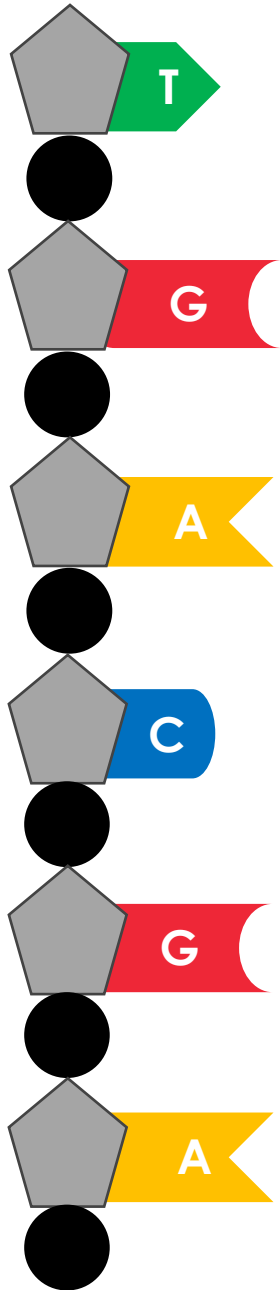


DNA-REPLISERING

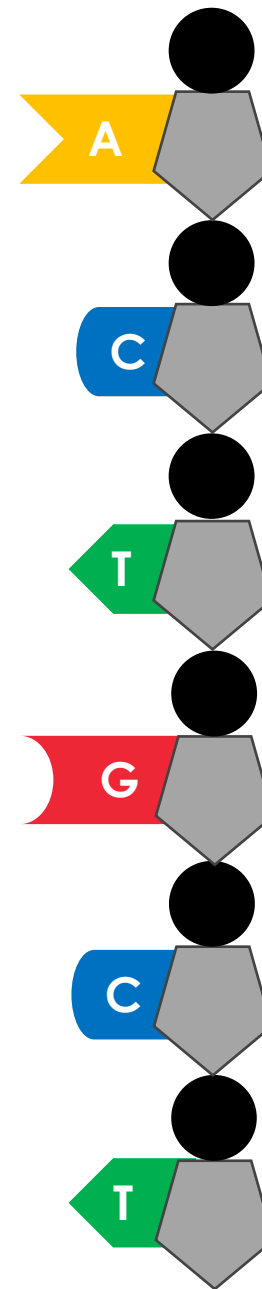


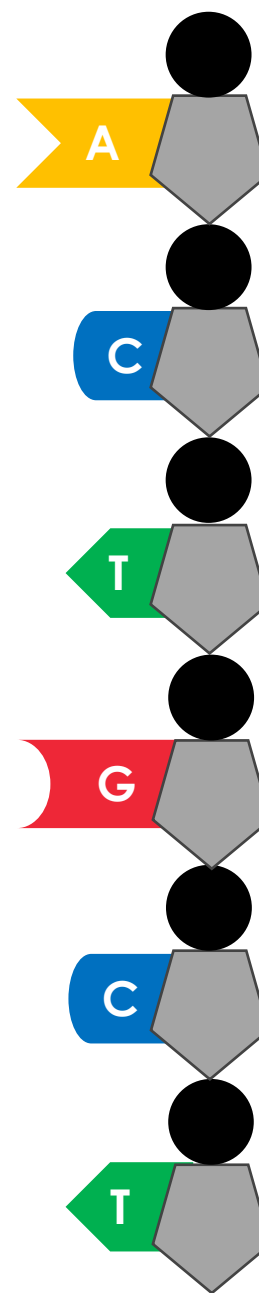
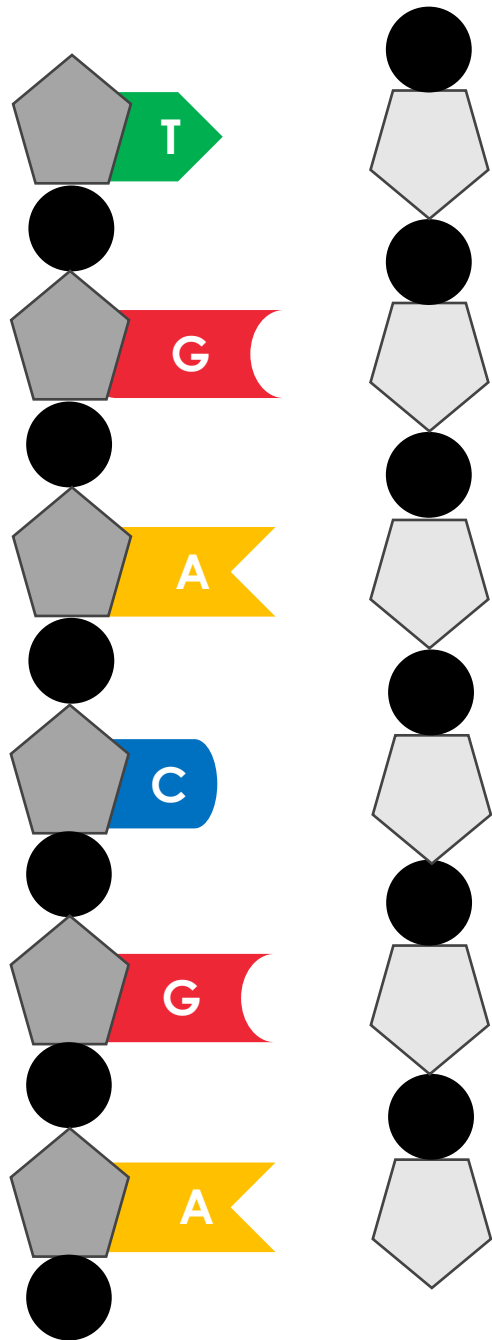


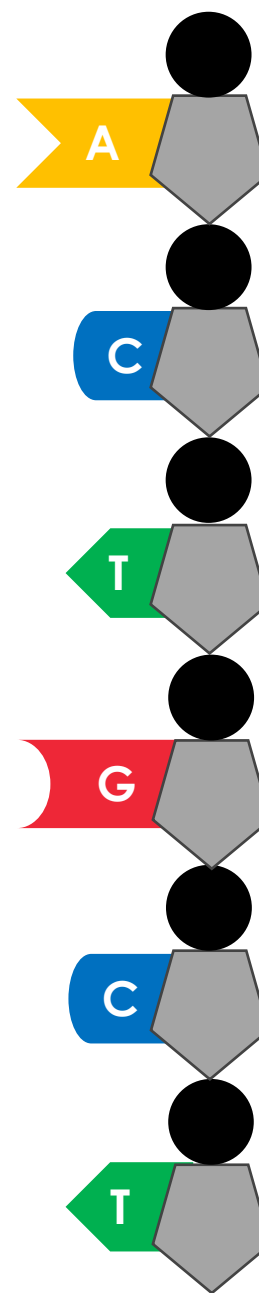
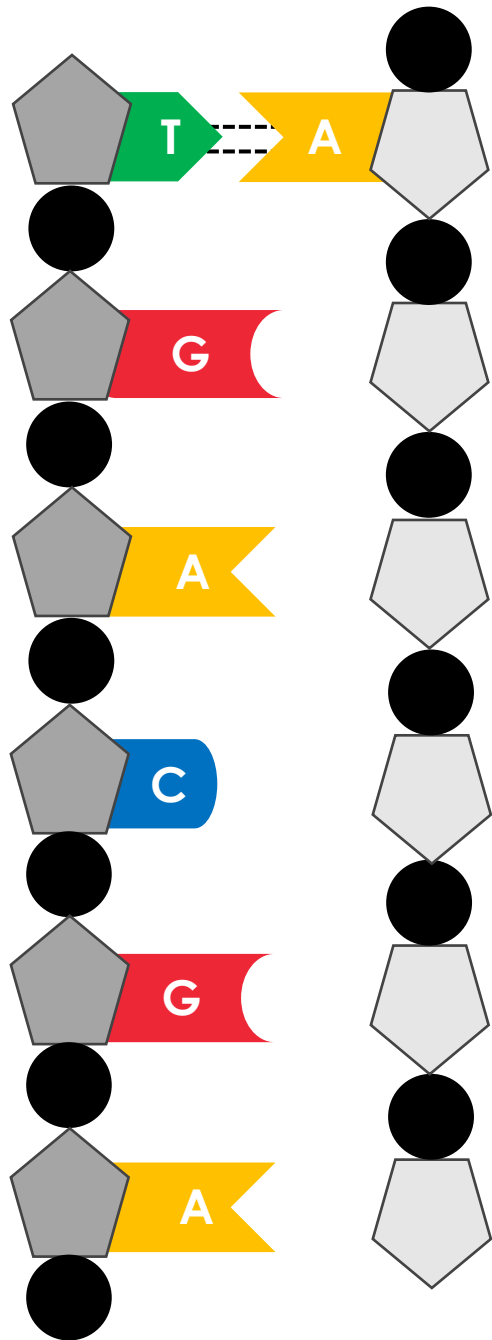


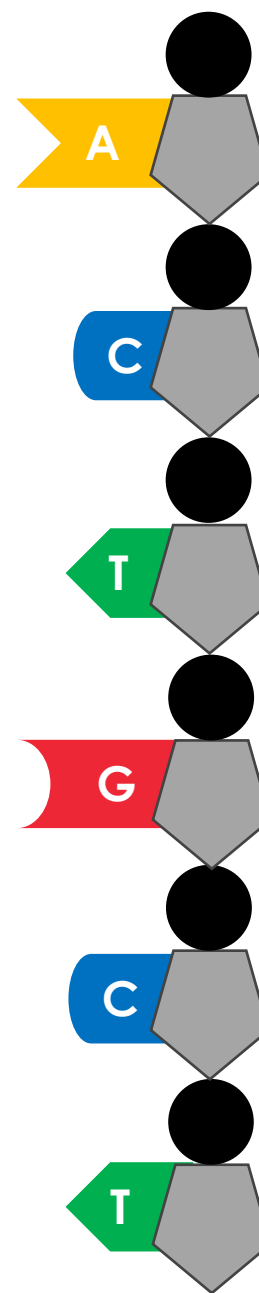
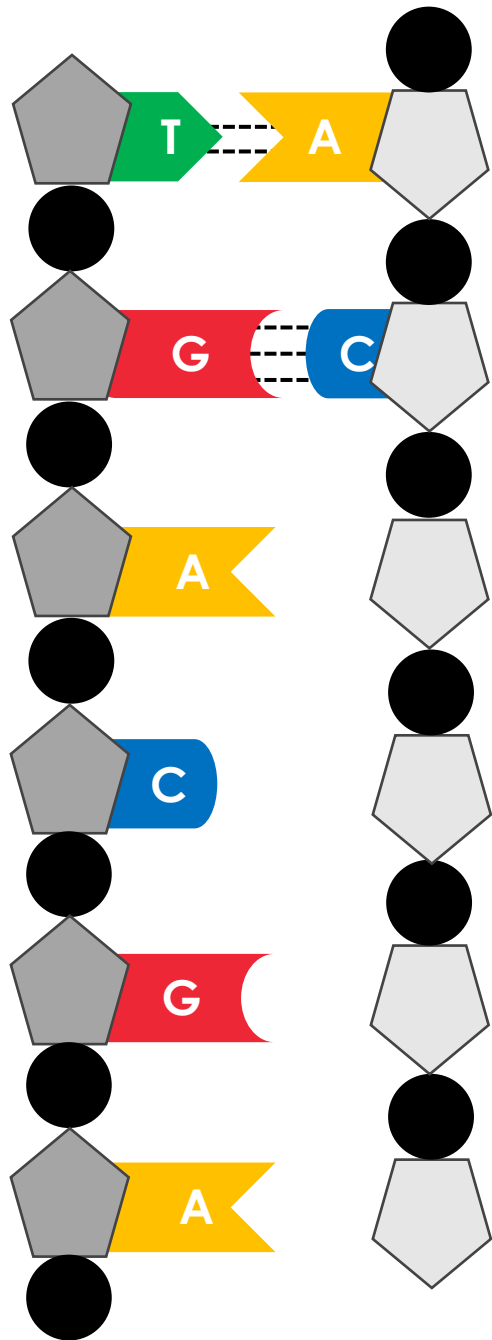


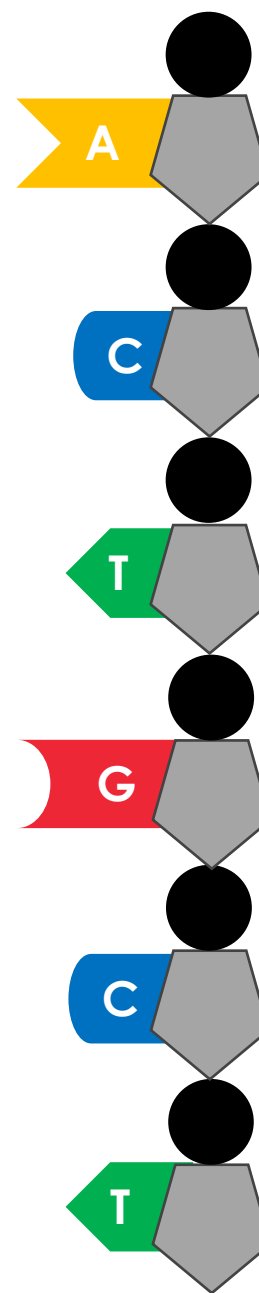
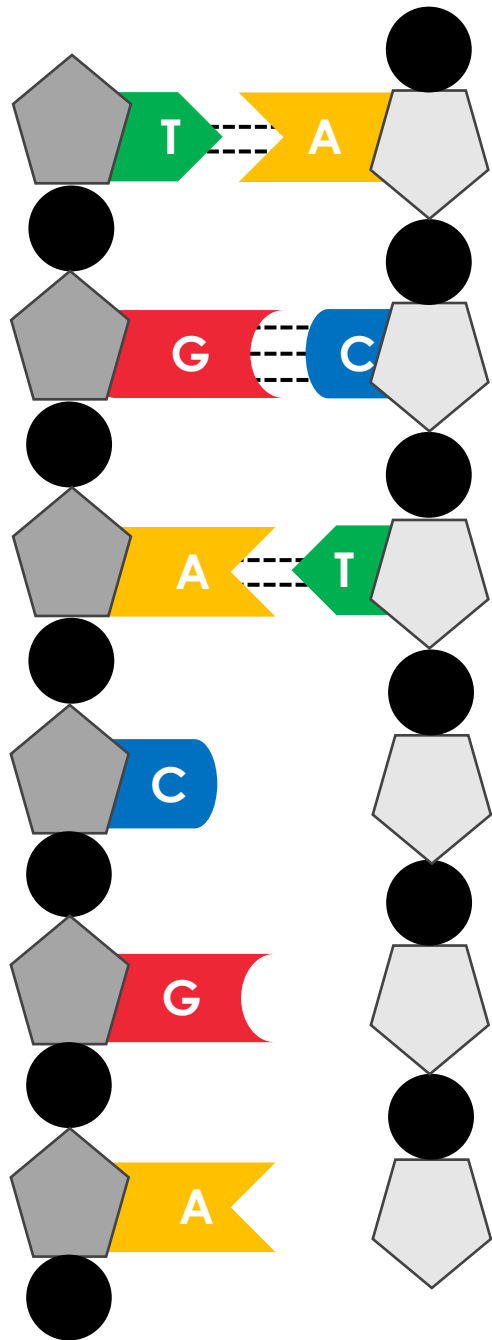
Voltooi de nukleotiedvolgordes van
die twee gerepliseerde stringe.

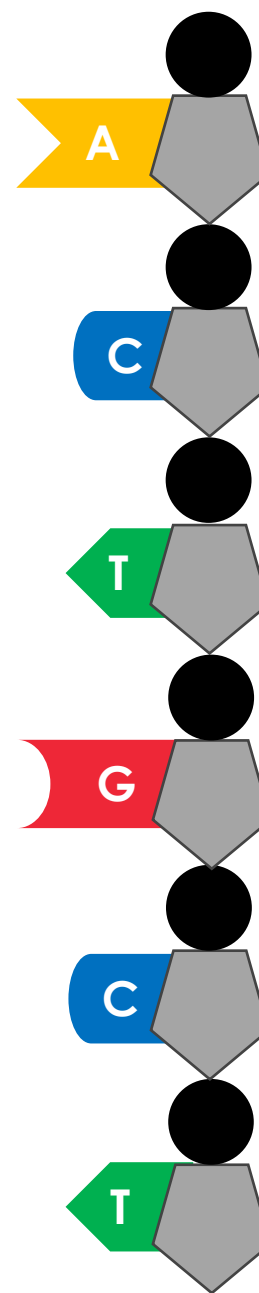
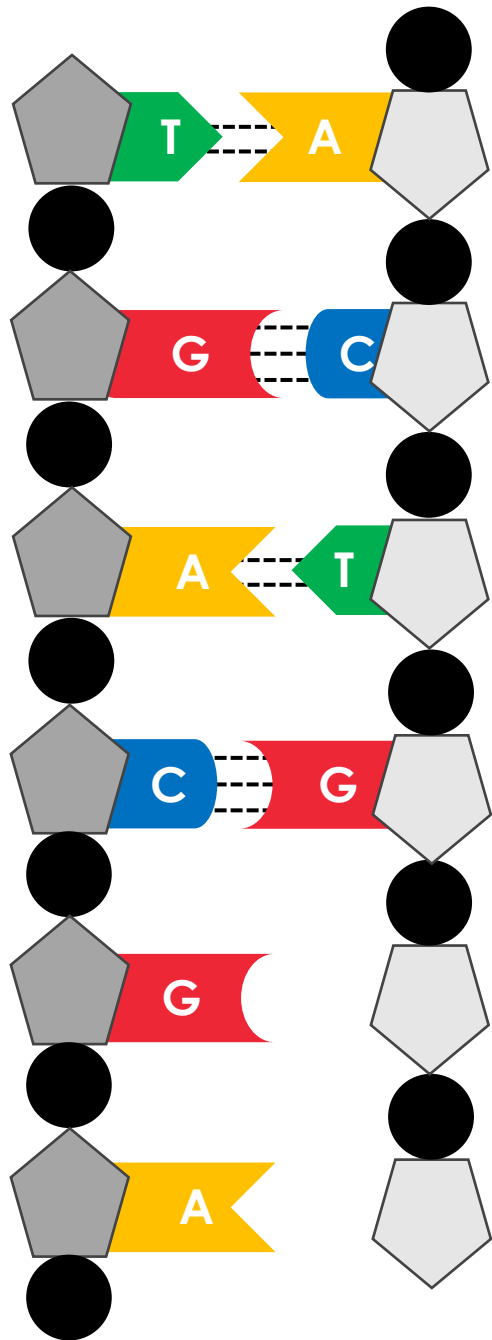


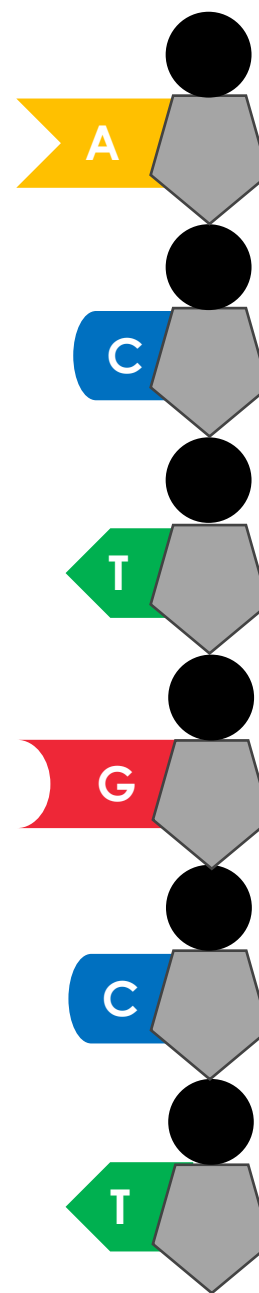
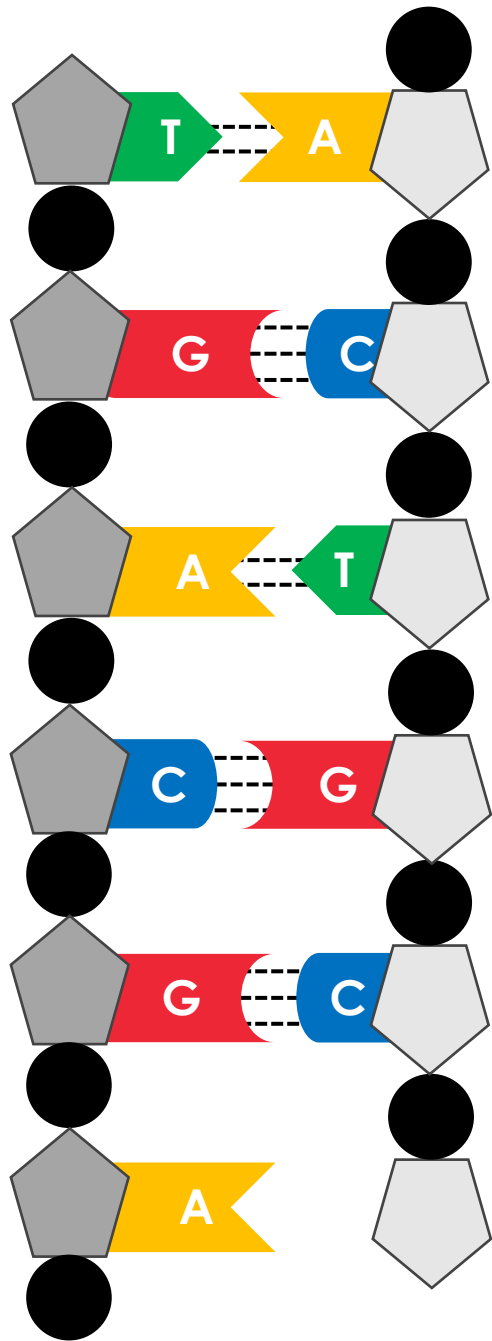


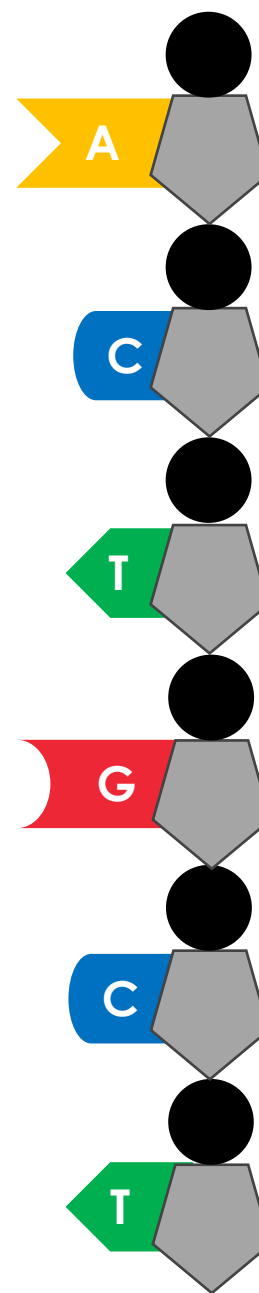
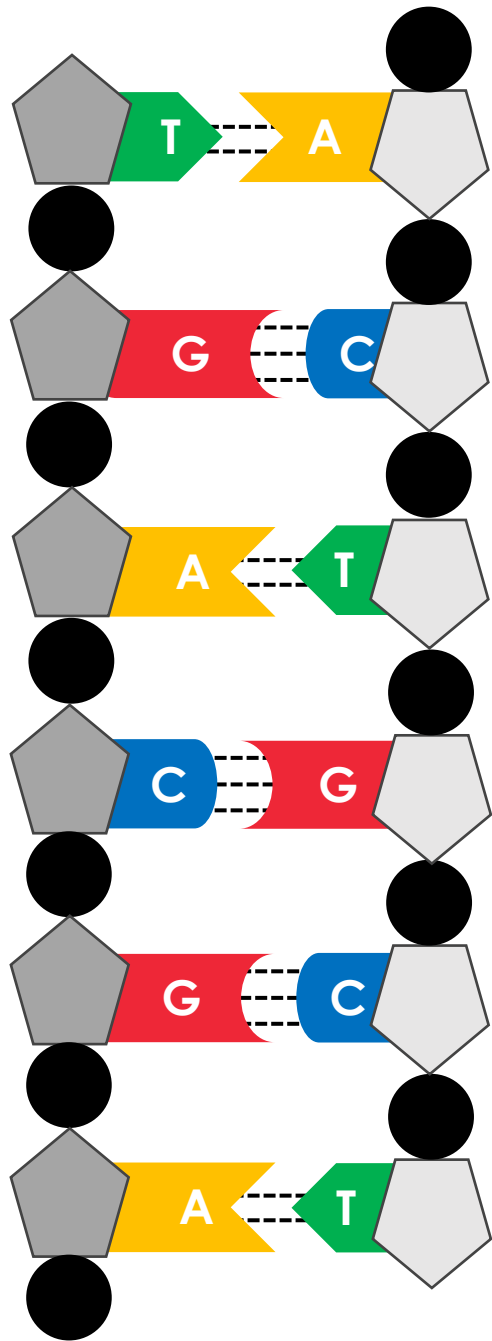


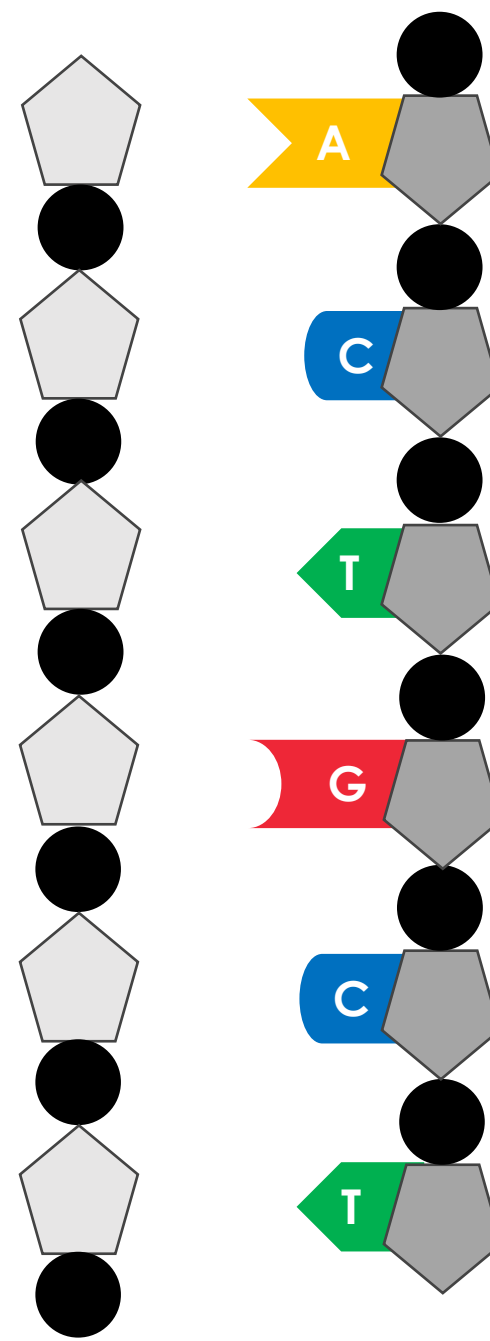
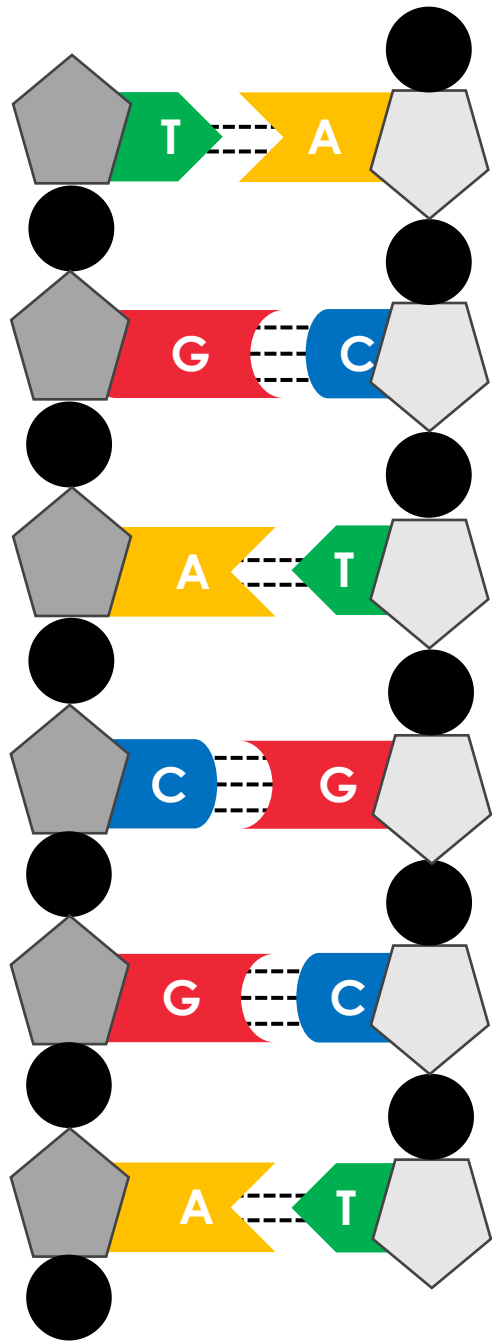


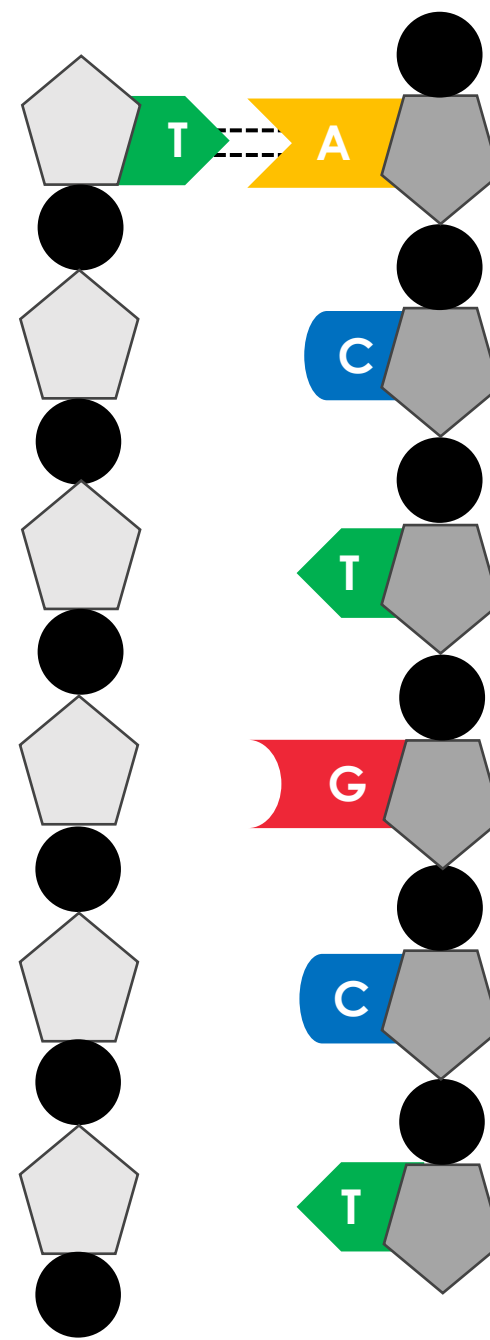
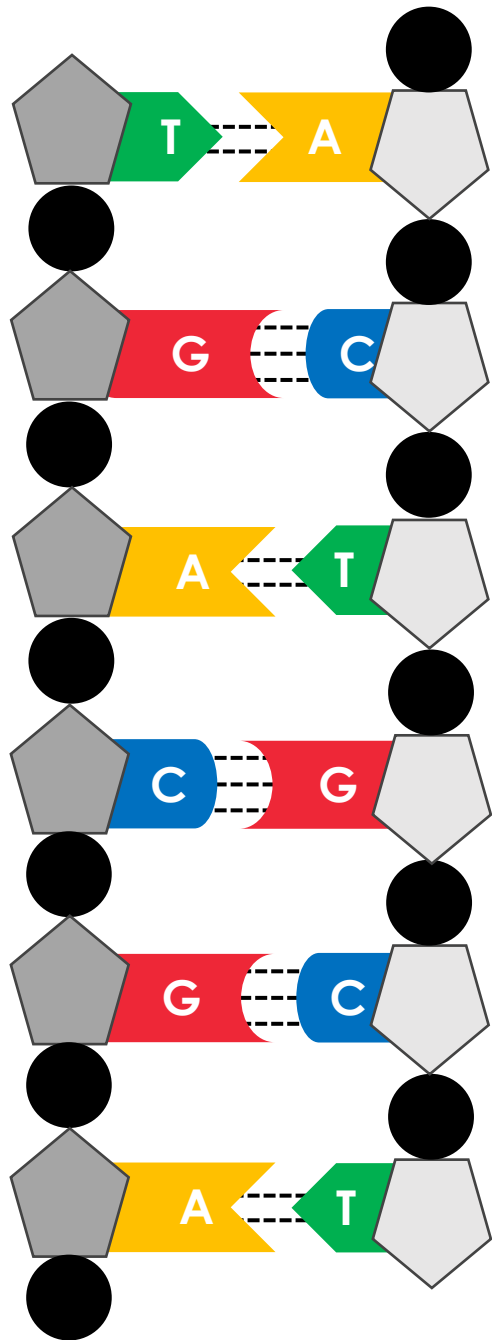


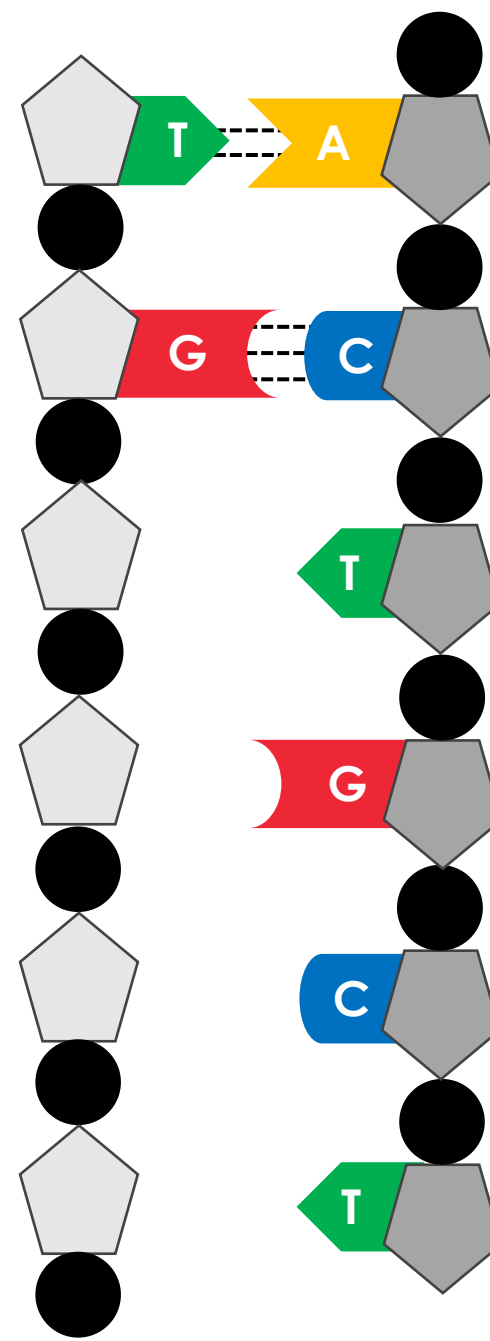
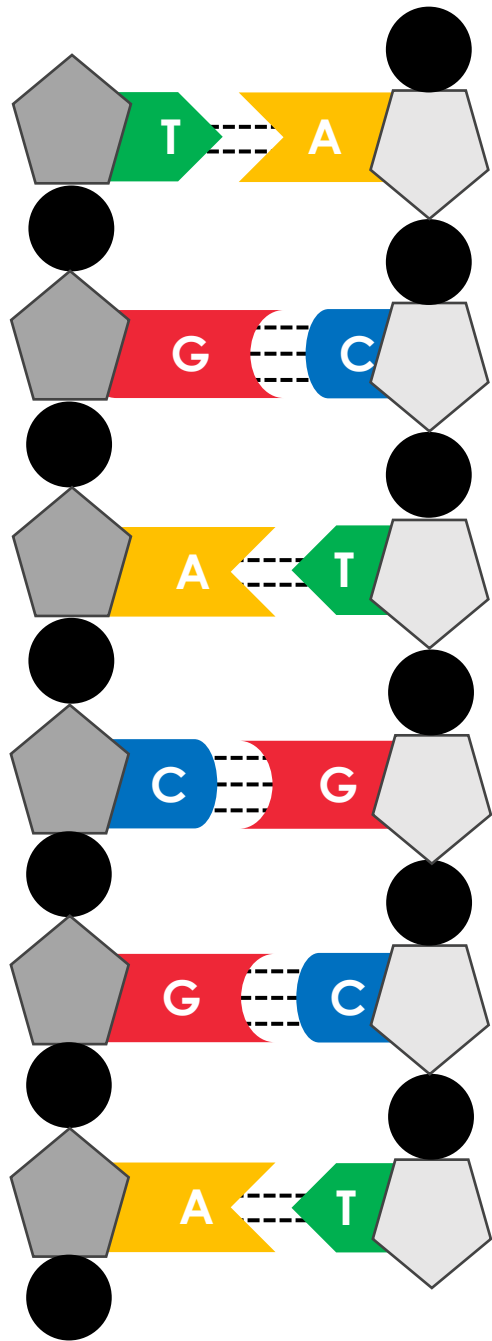


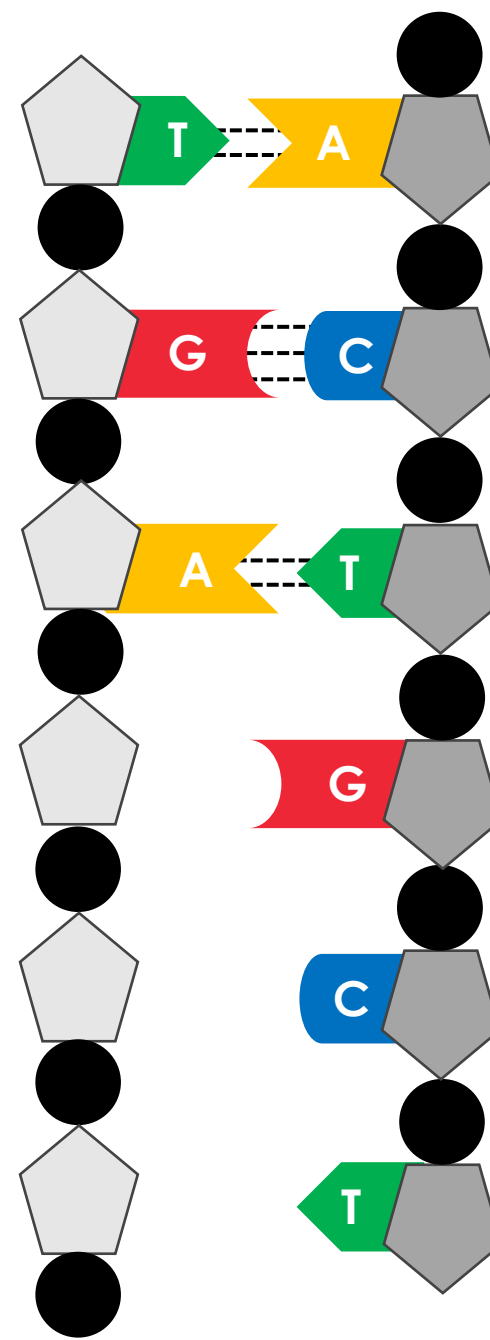
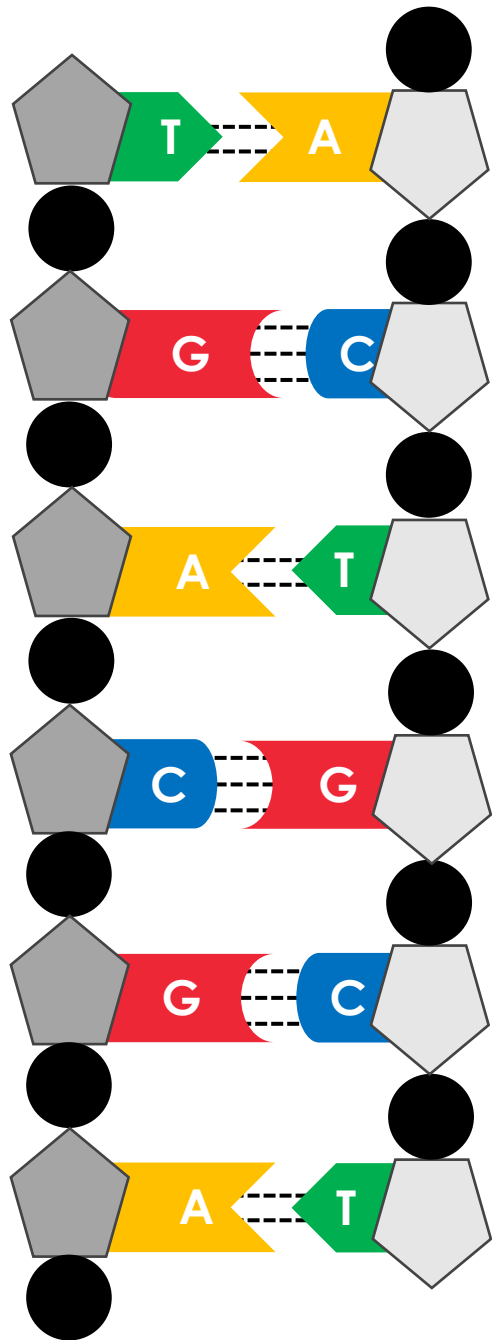


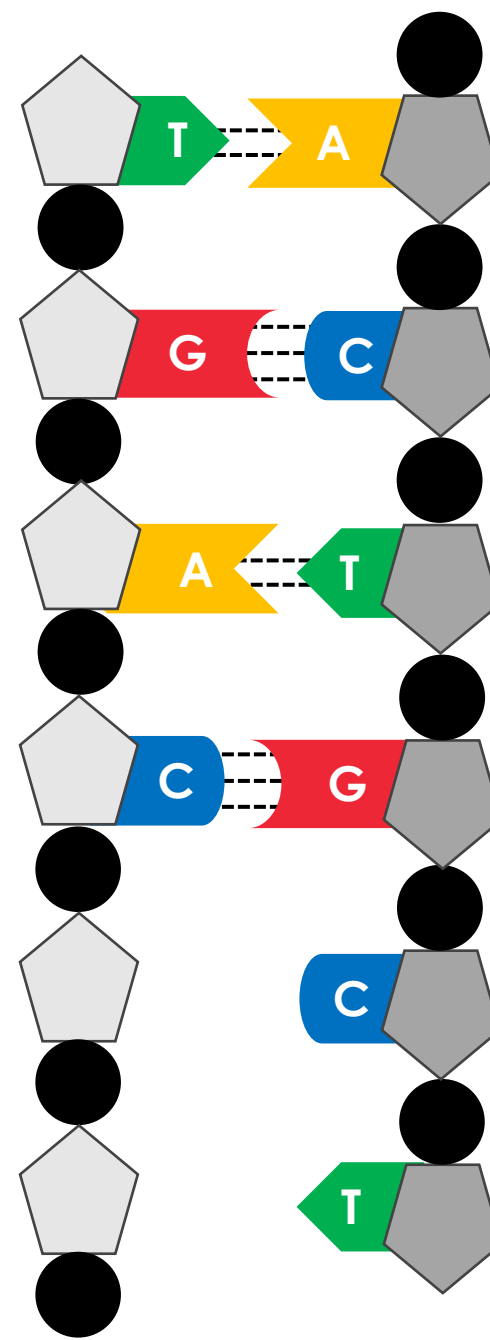
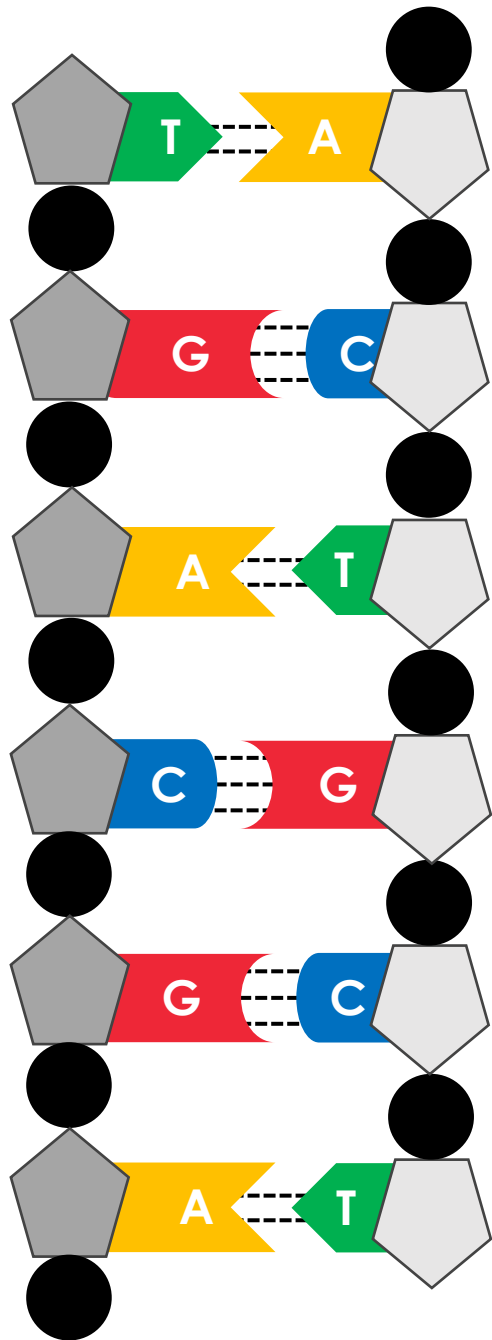


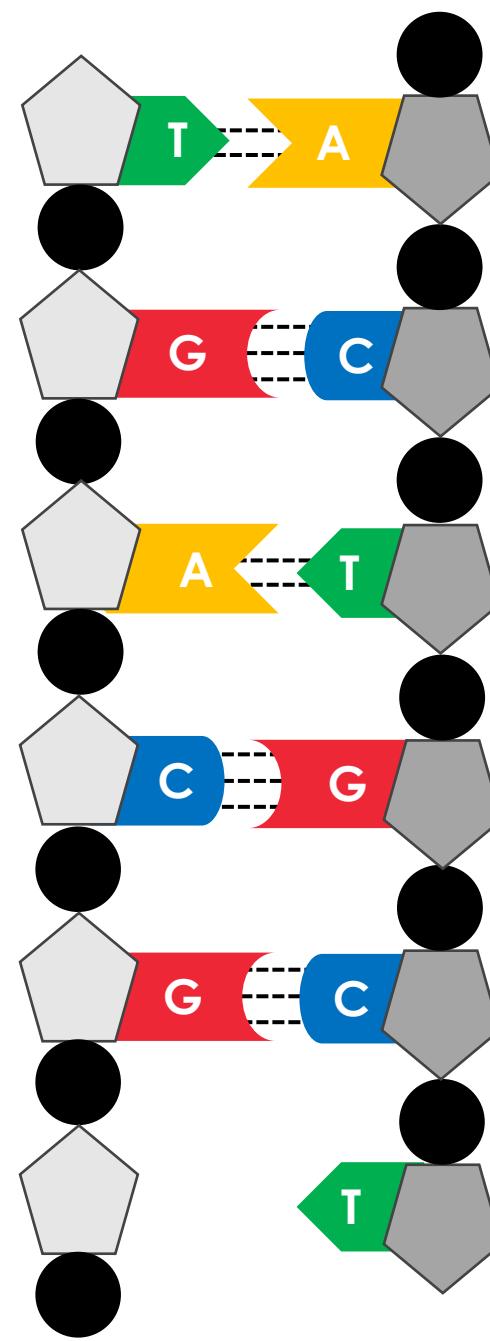
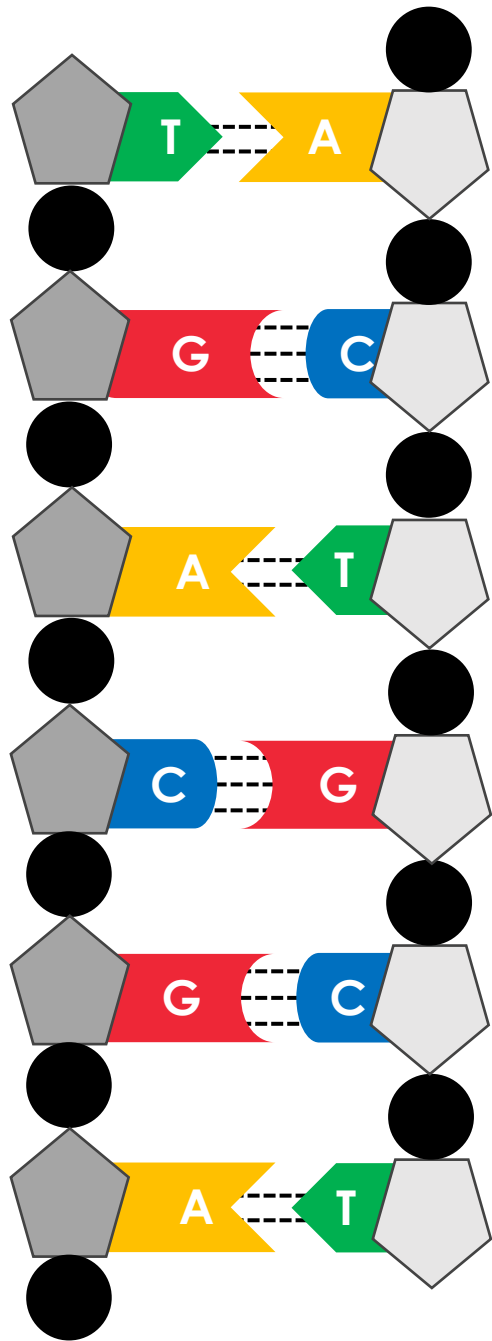


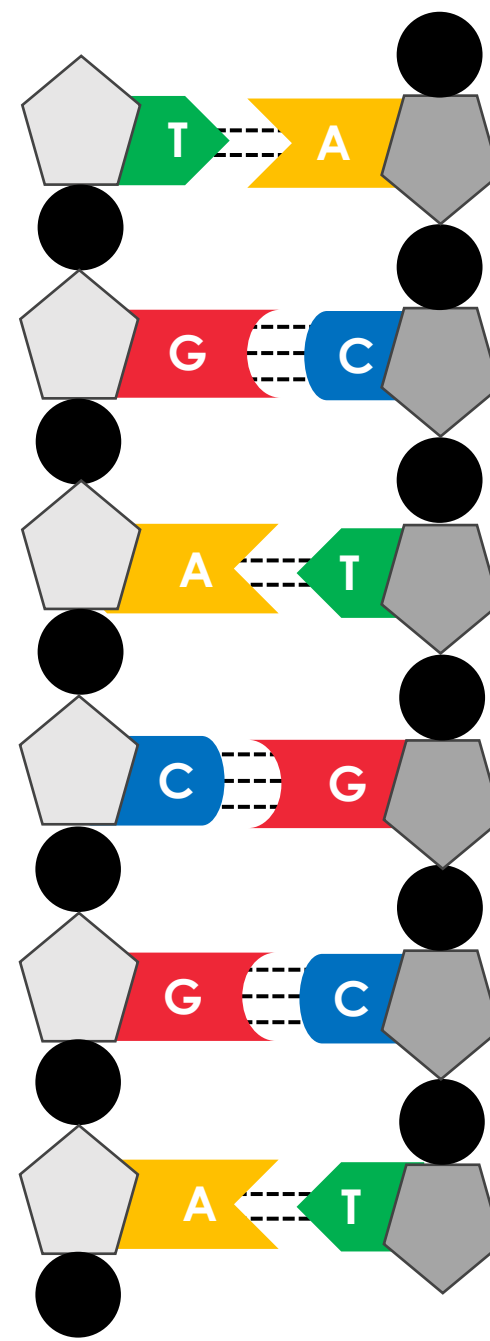
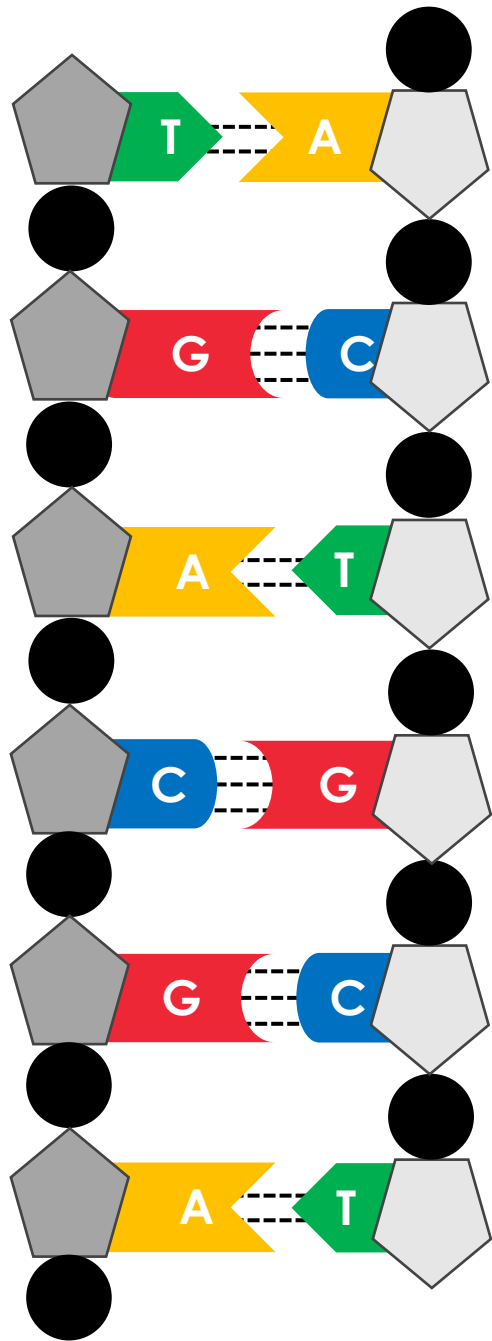


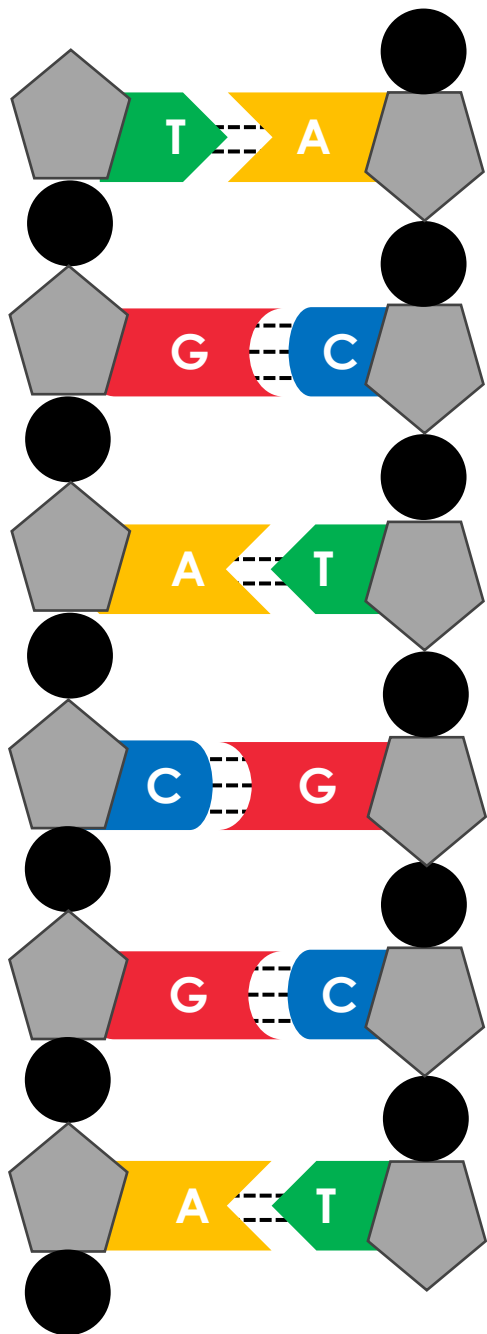








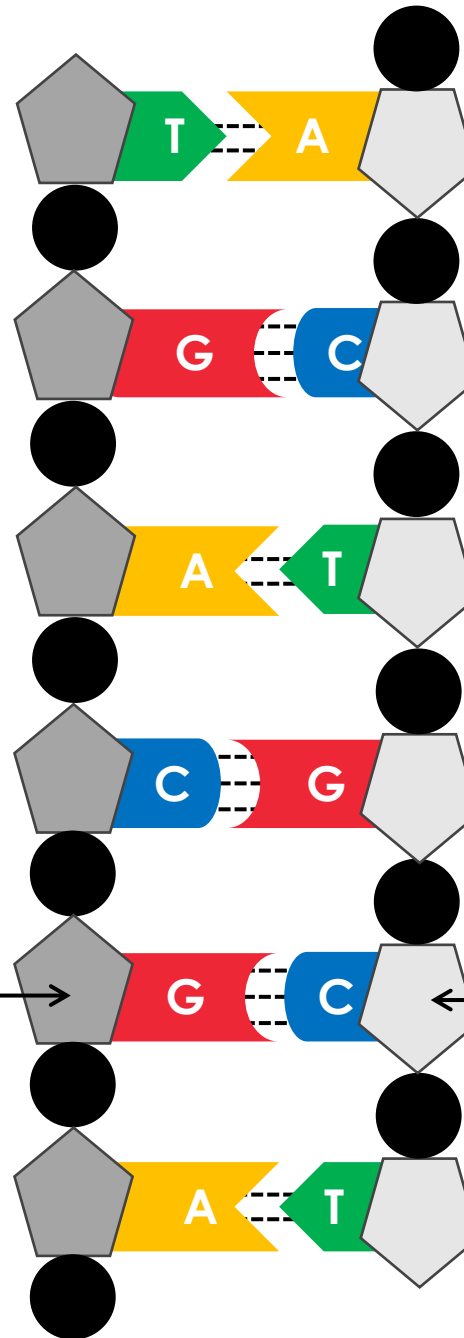




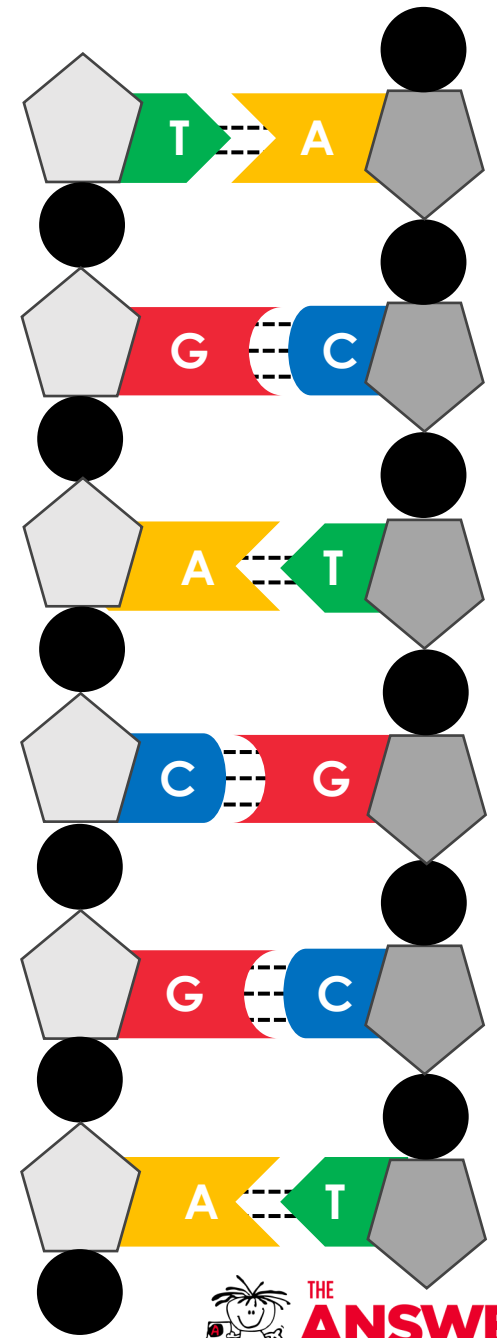
Twee identiese kopieë word vanaf die oorspronklike DNA-molekule **gevorm** – elke kopie bestaan uit een nuwe string en een oorspronklike (templaats-) string



templaats-string →

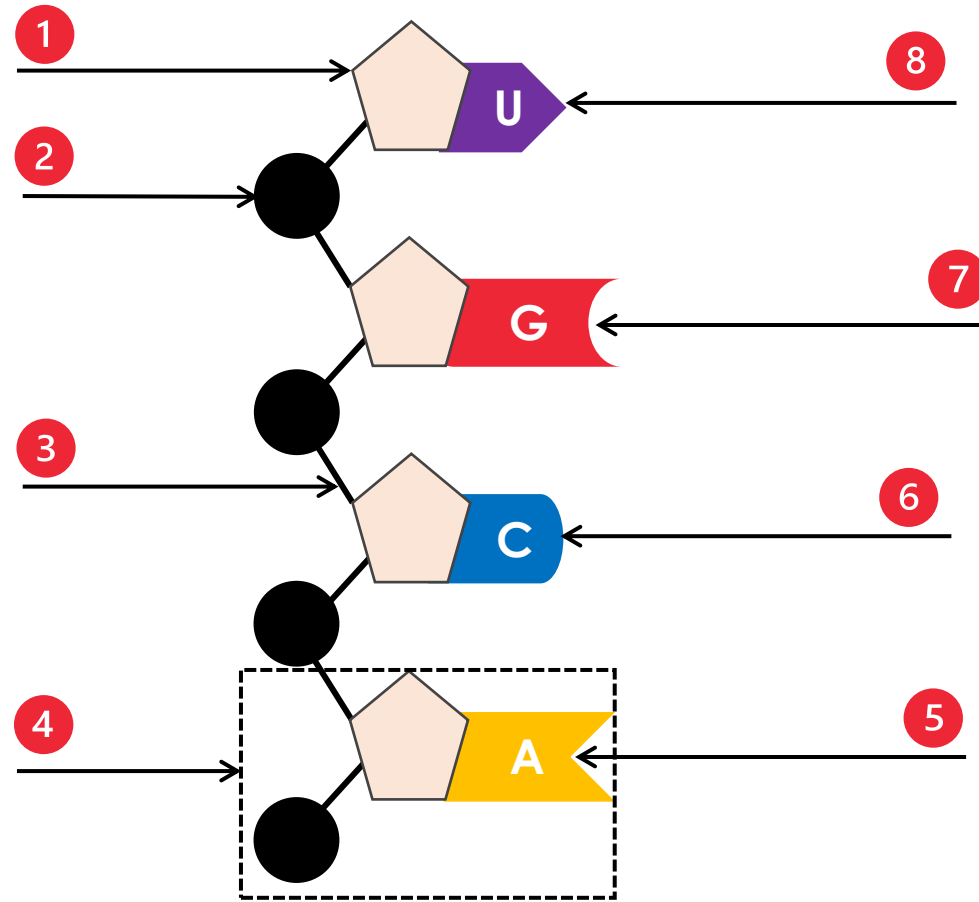


← nuwe string

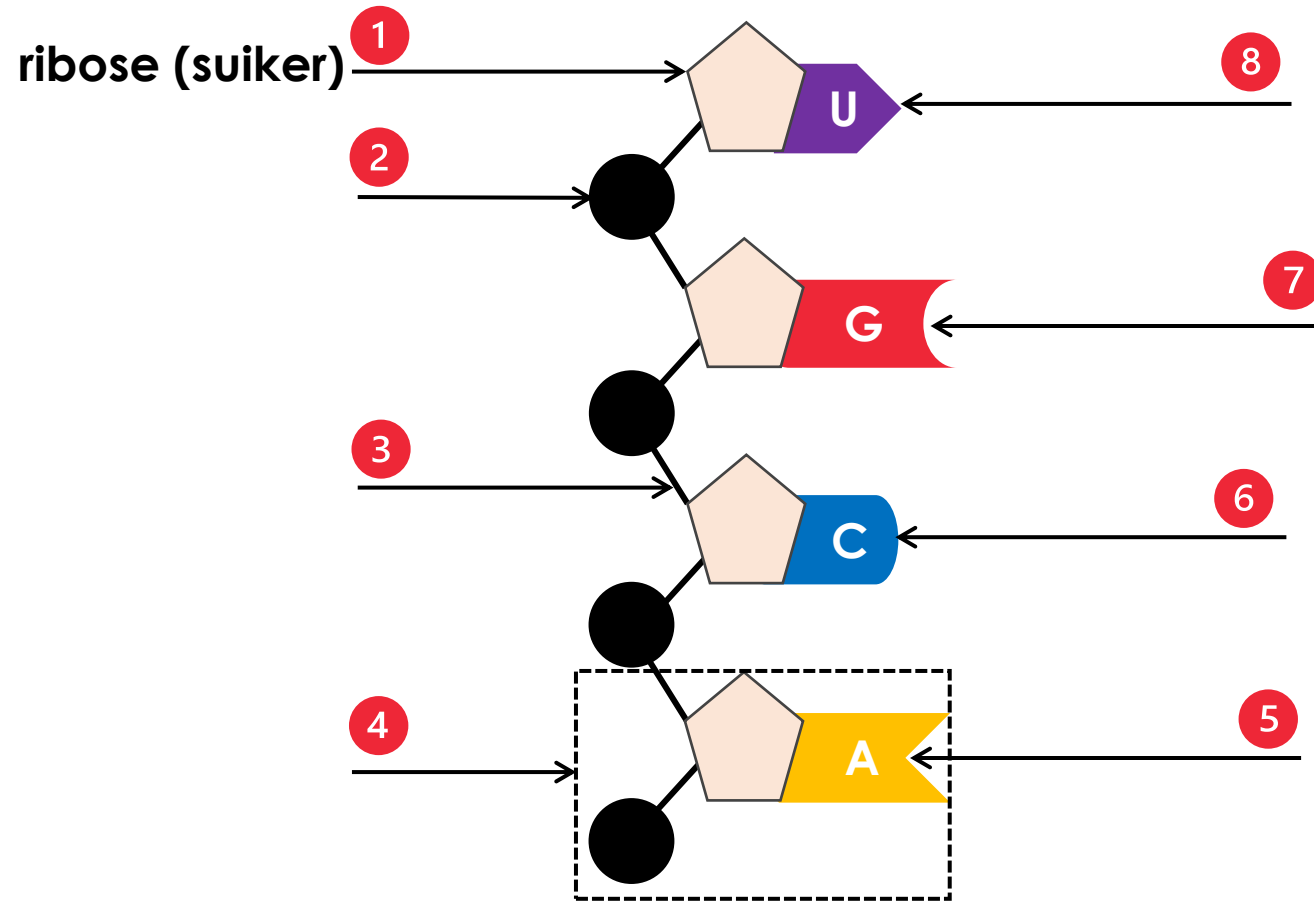


RNA-STRUKTUUR

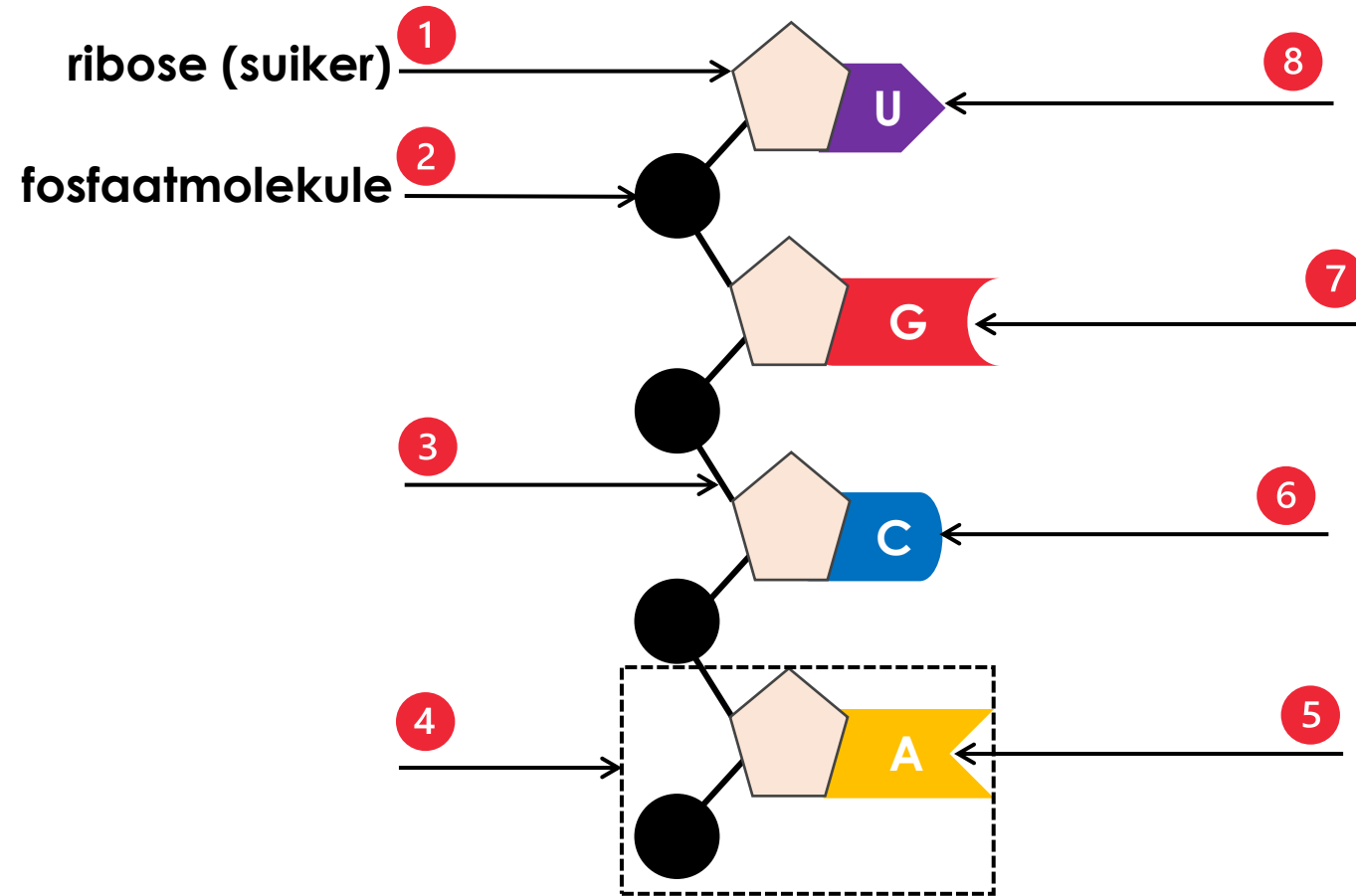
Verskaf byskrifte vir die struktuur van RNA.



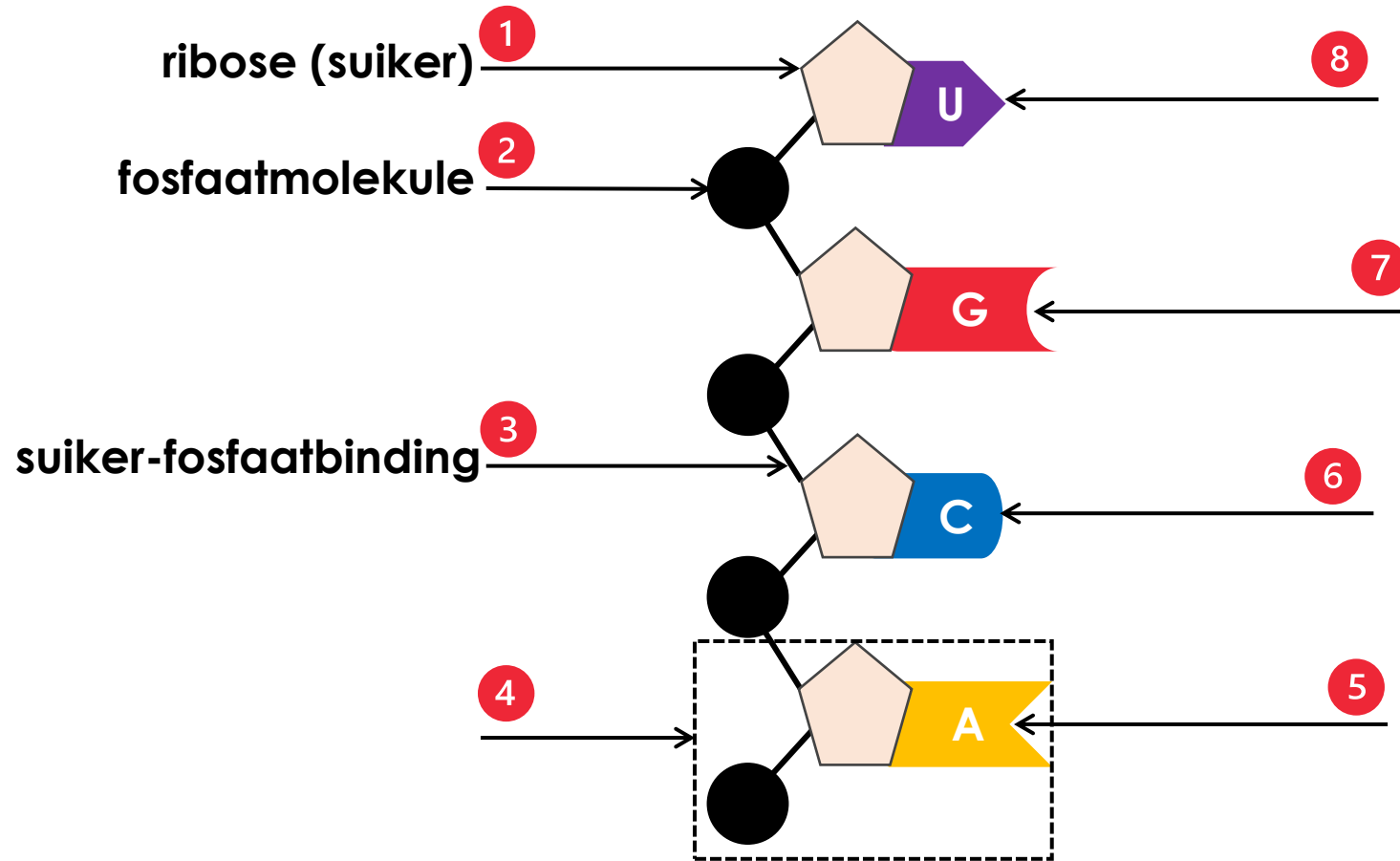
Verskaf byskrifte vir die struktuur van RNA.



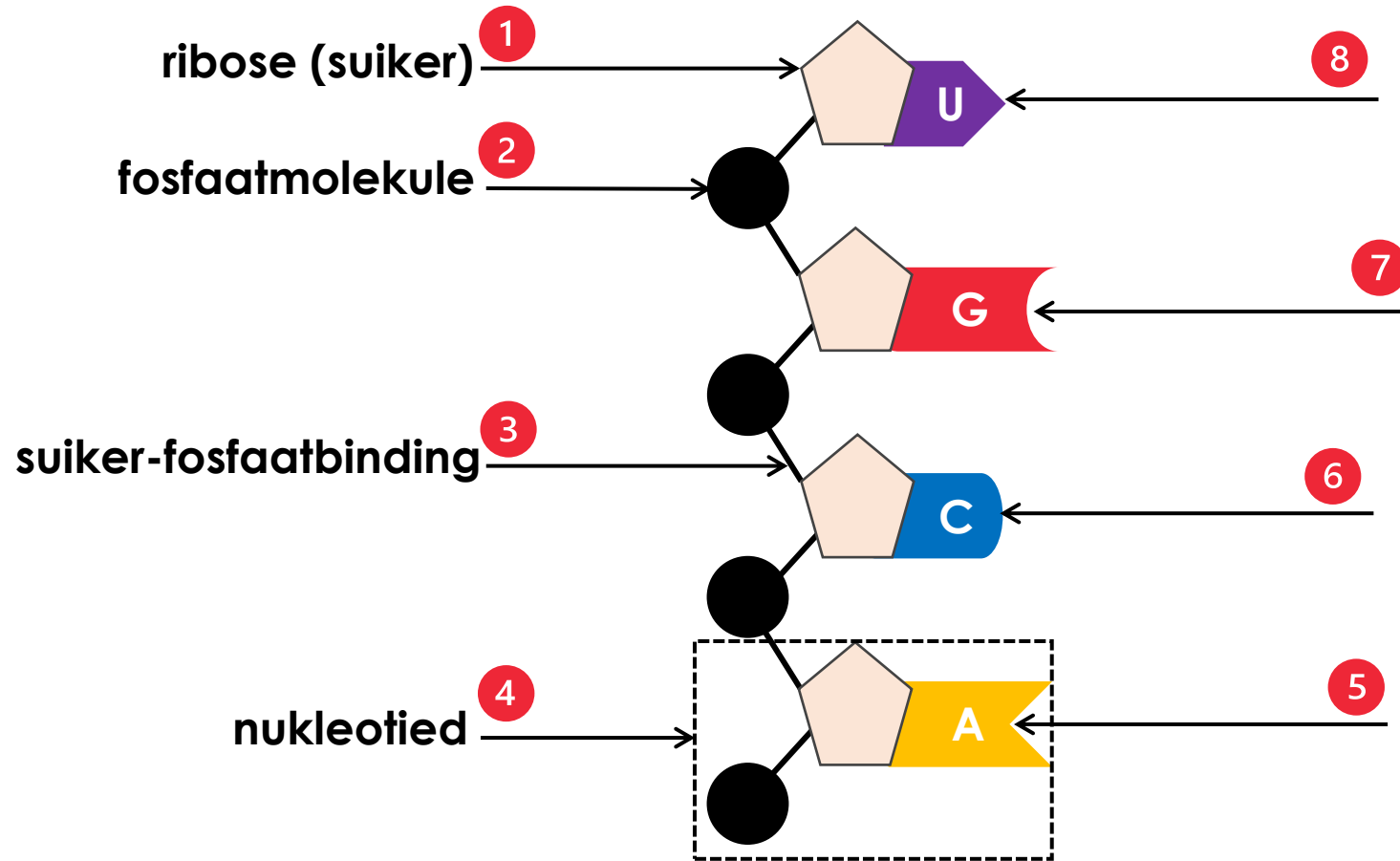
Verskaf byskrifte vir die struktuur van RNA.



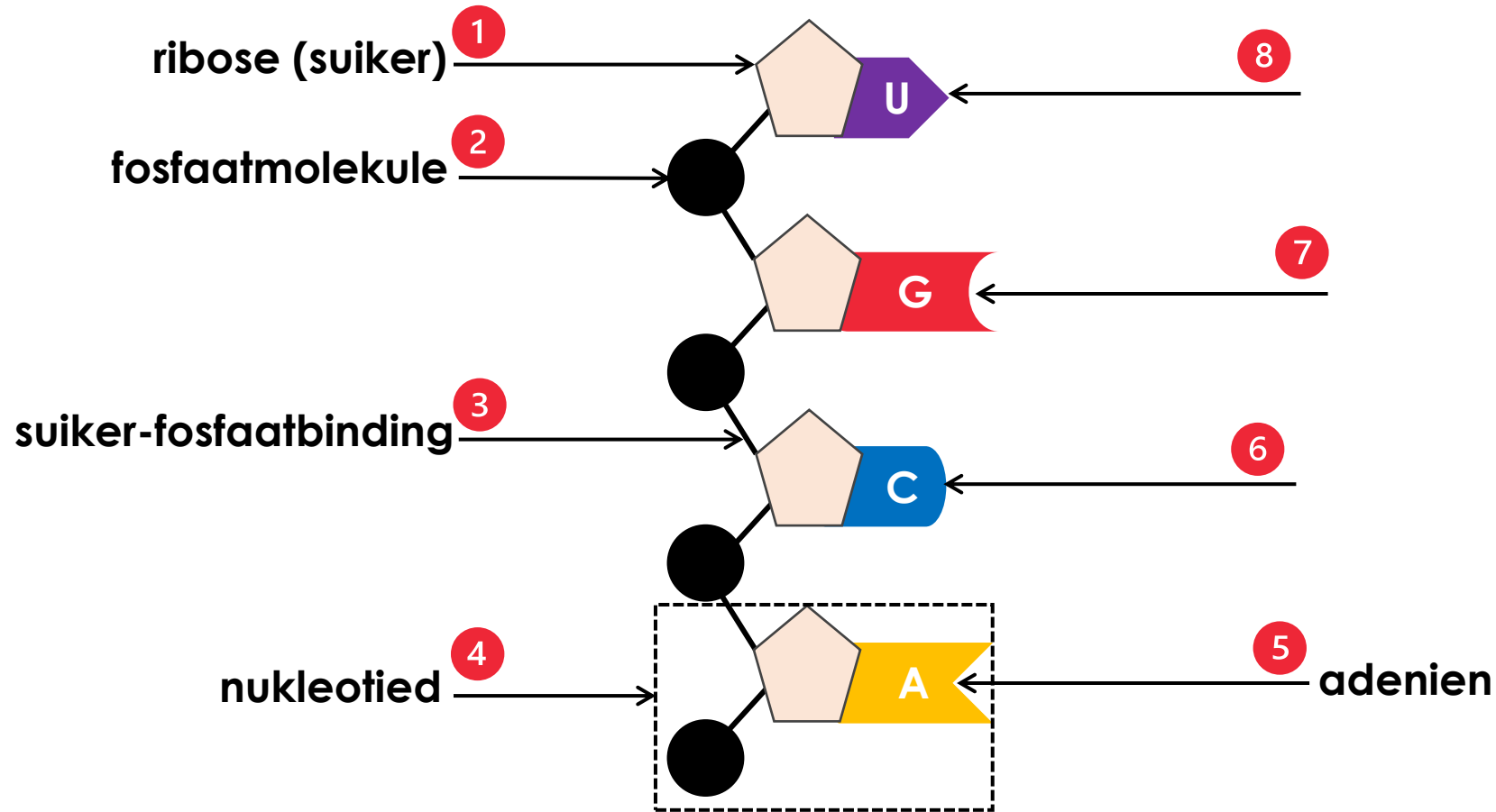
Verskaf byskrifte vir die struktuur van RNA.



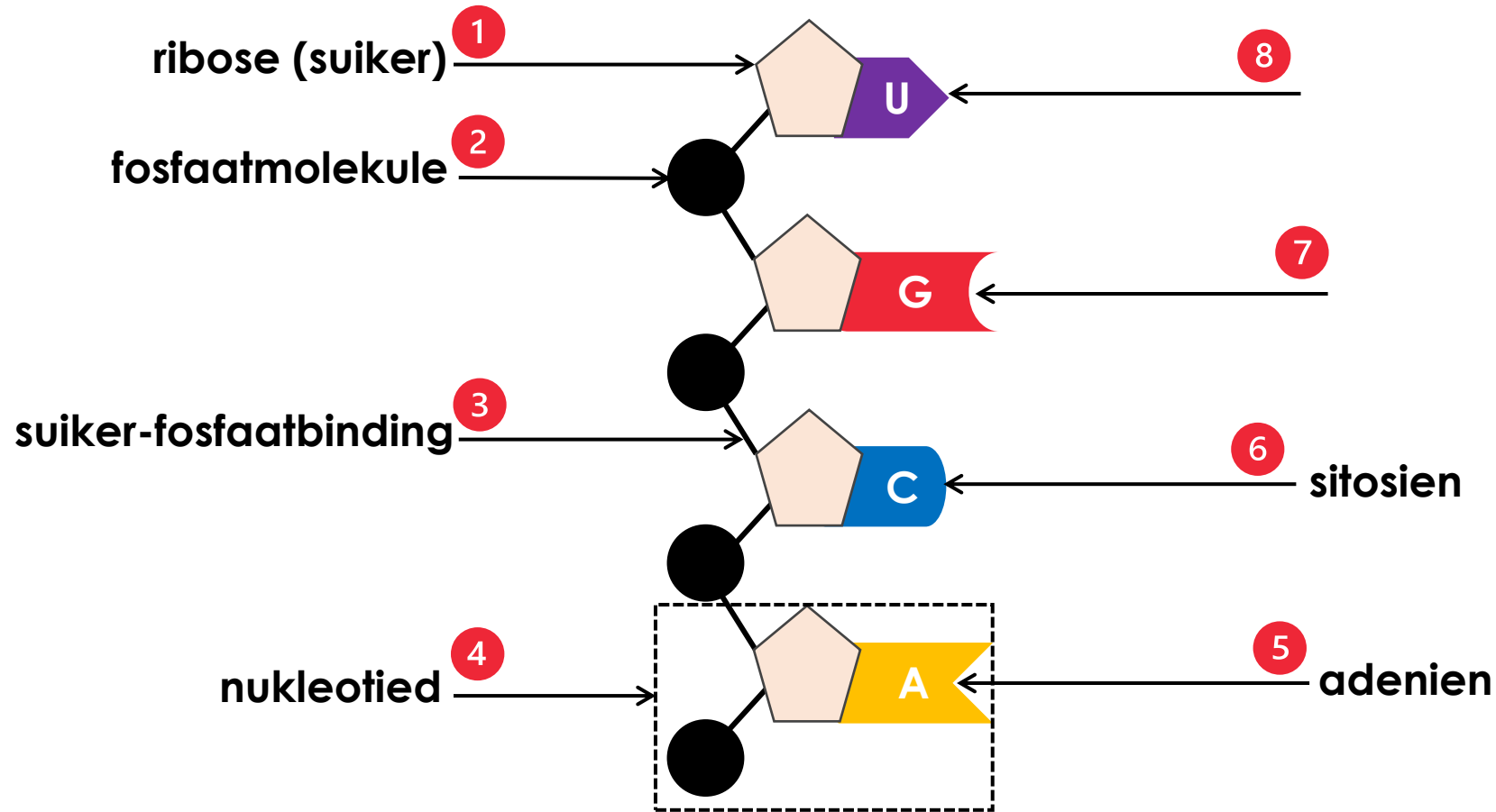
Verskaf byskrifte vir die struktuur van RNA.



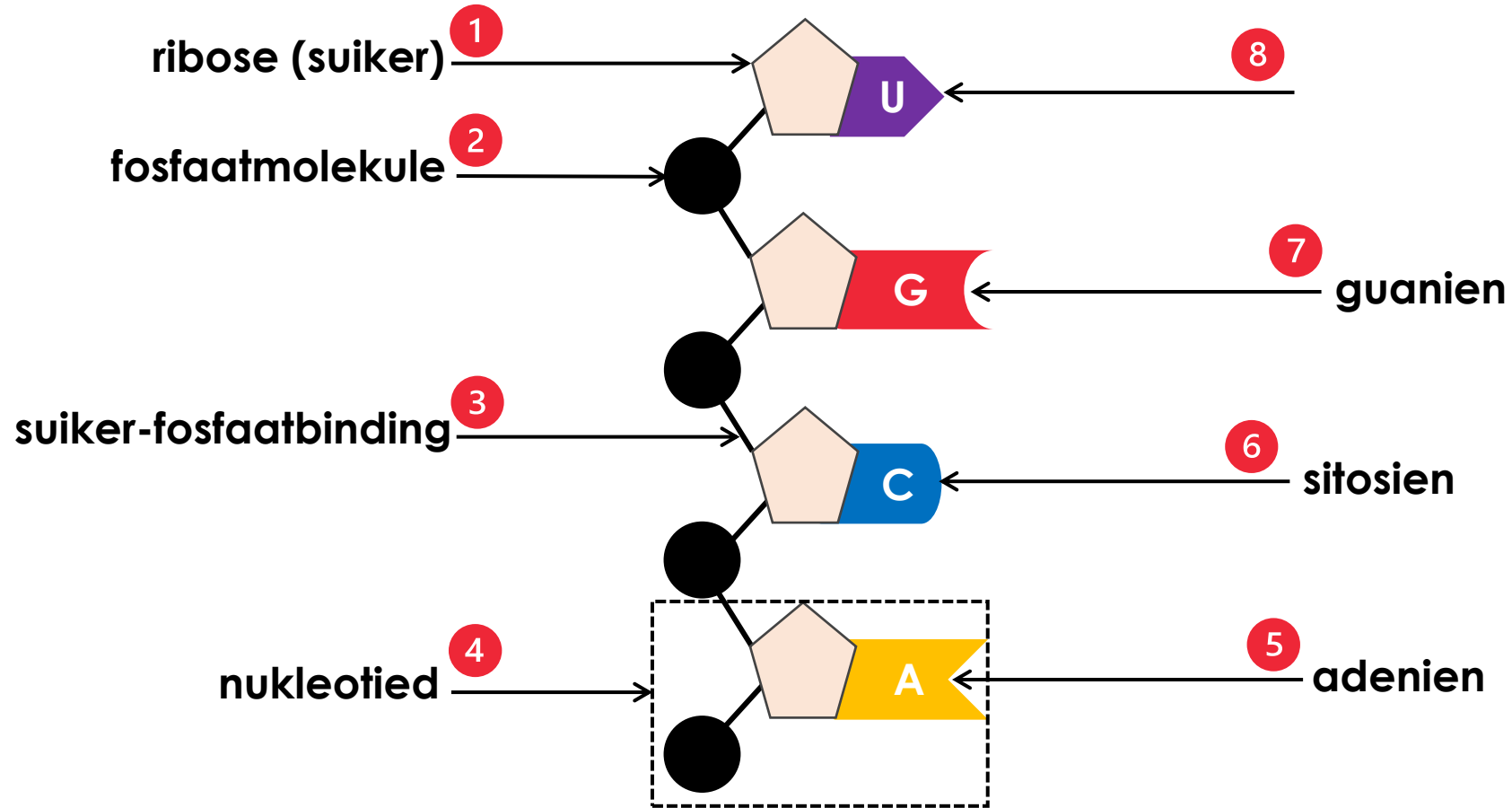
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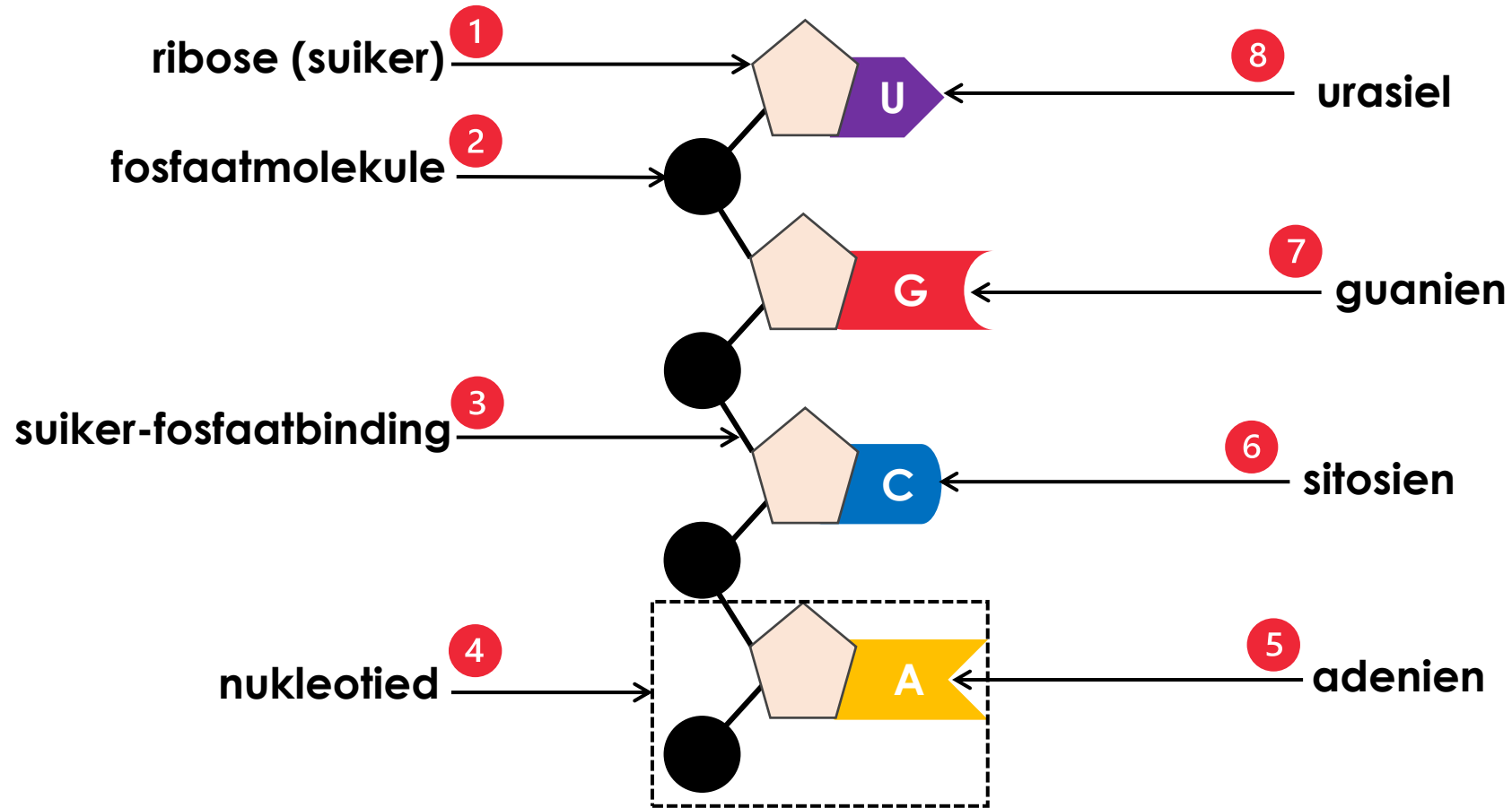
Verskaf byskrifte vir die struktuur van RNA.



Verskaf byskrifte vir die struktuur van RNA.

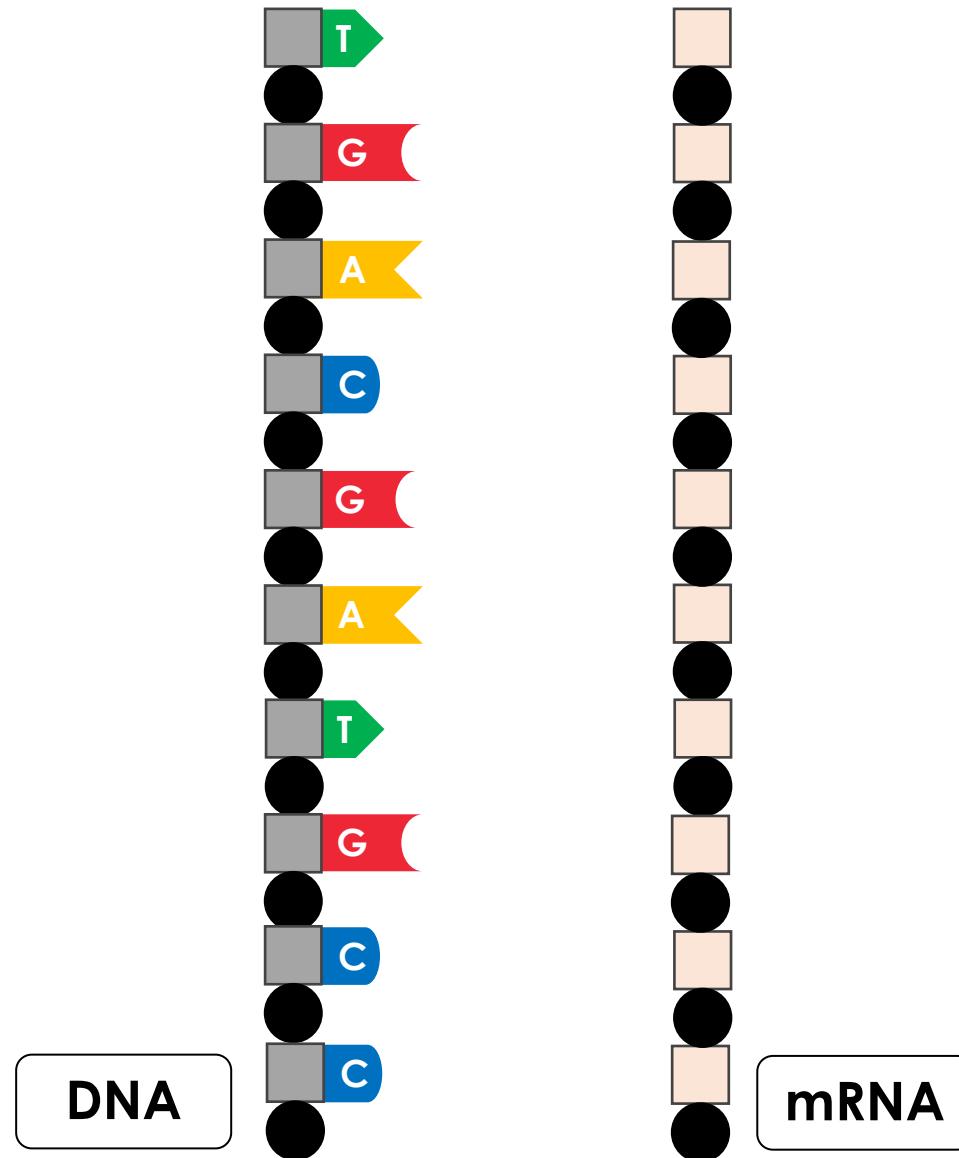


Verskaf byskrifte vir die struktuur van RNA.

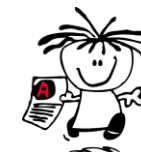
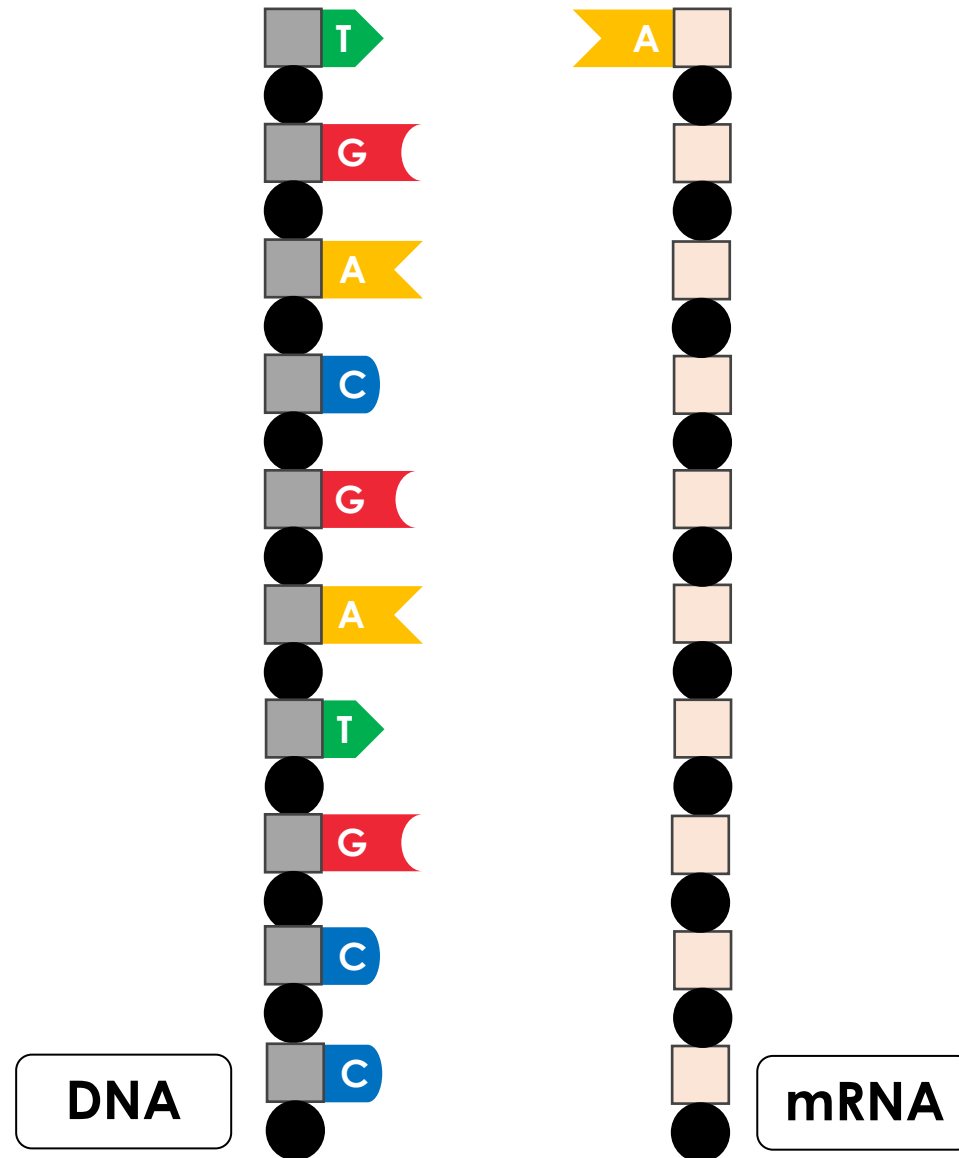


TRANSKRIPSIE

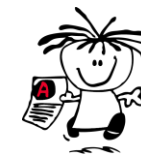
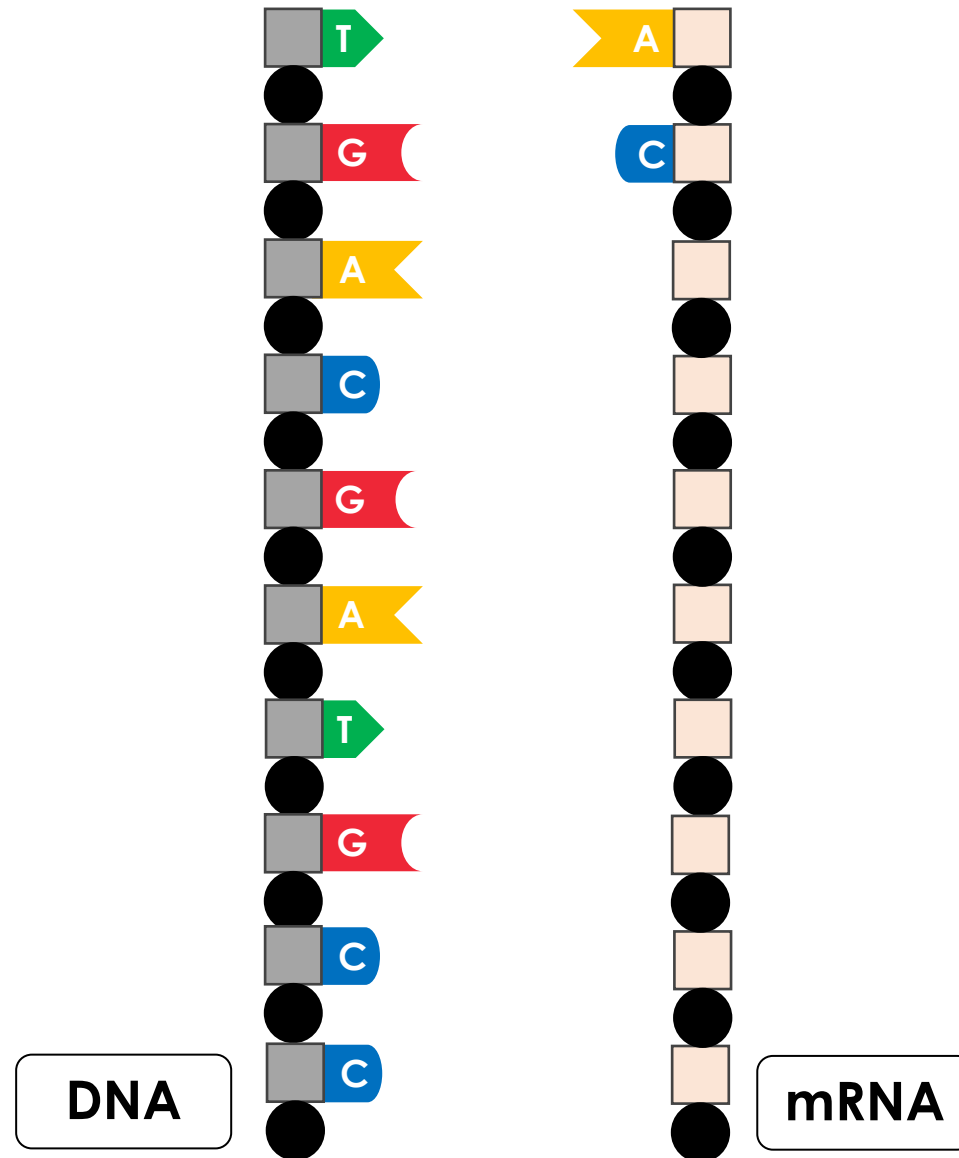
Transkribiere die DNA-string in 'n mRNA-string.



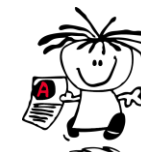
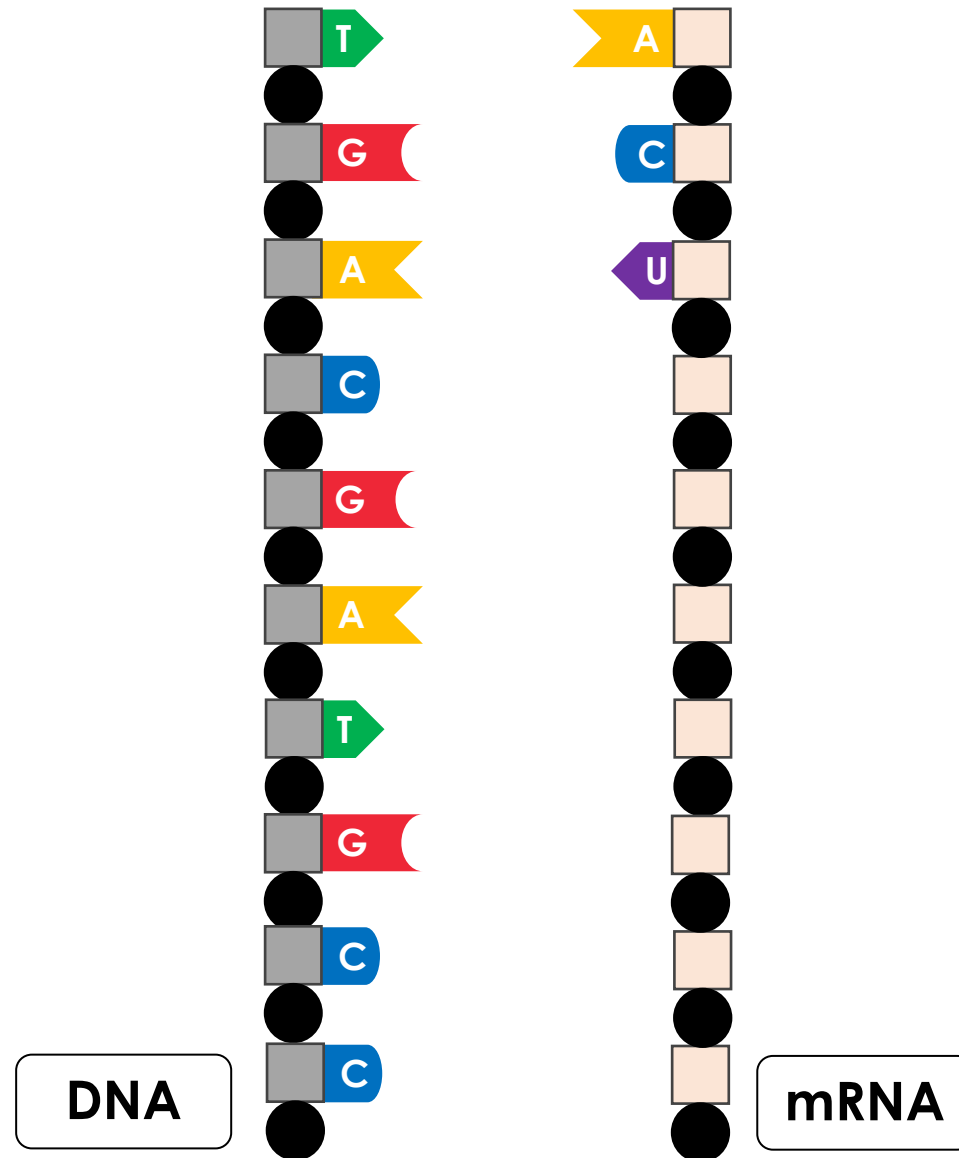
Transkribiere die DNA-string in 'n mRNA-string.



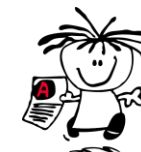
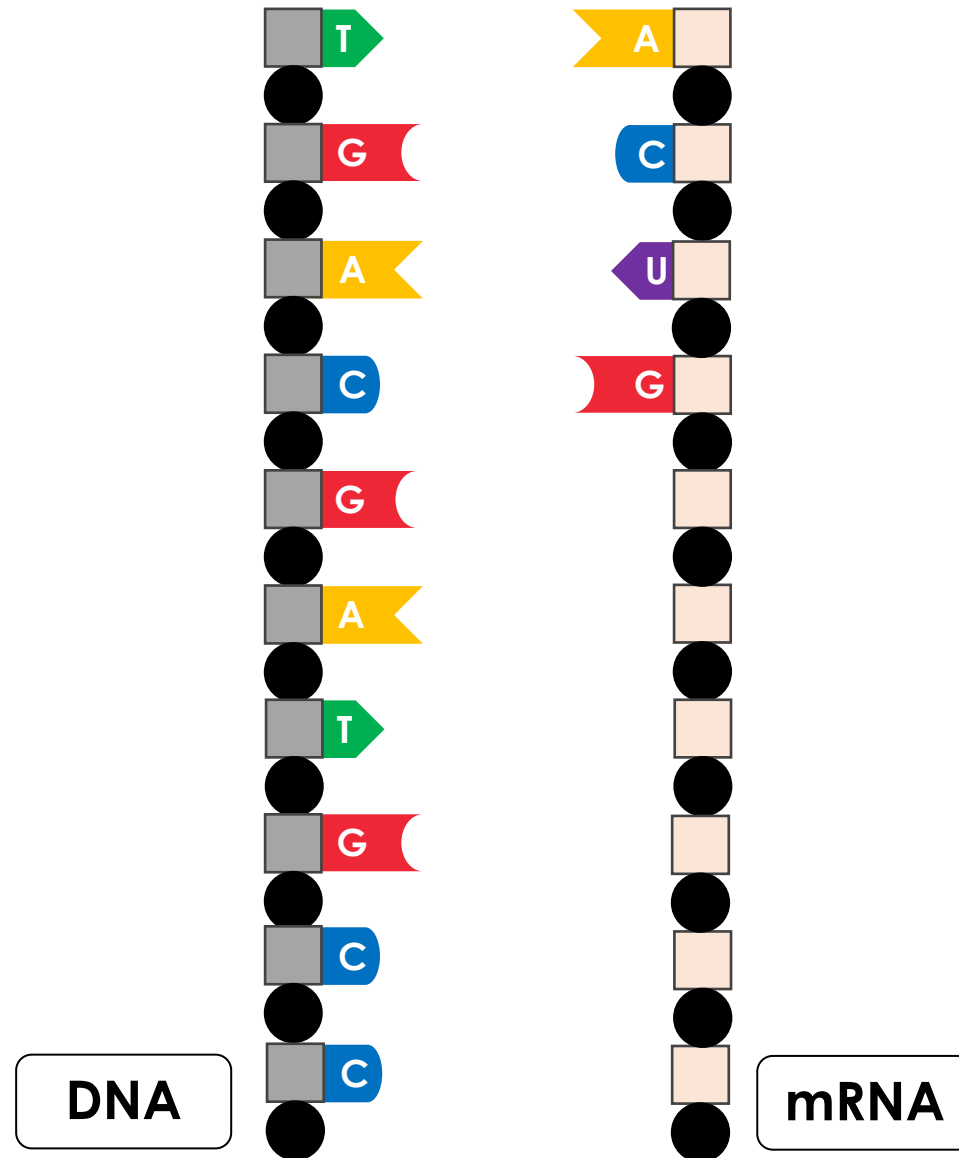
Transkribiere die DNA-string in 'n mRNA-string.



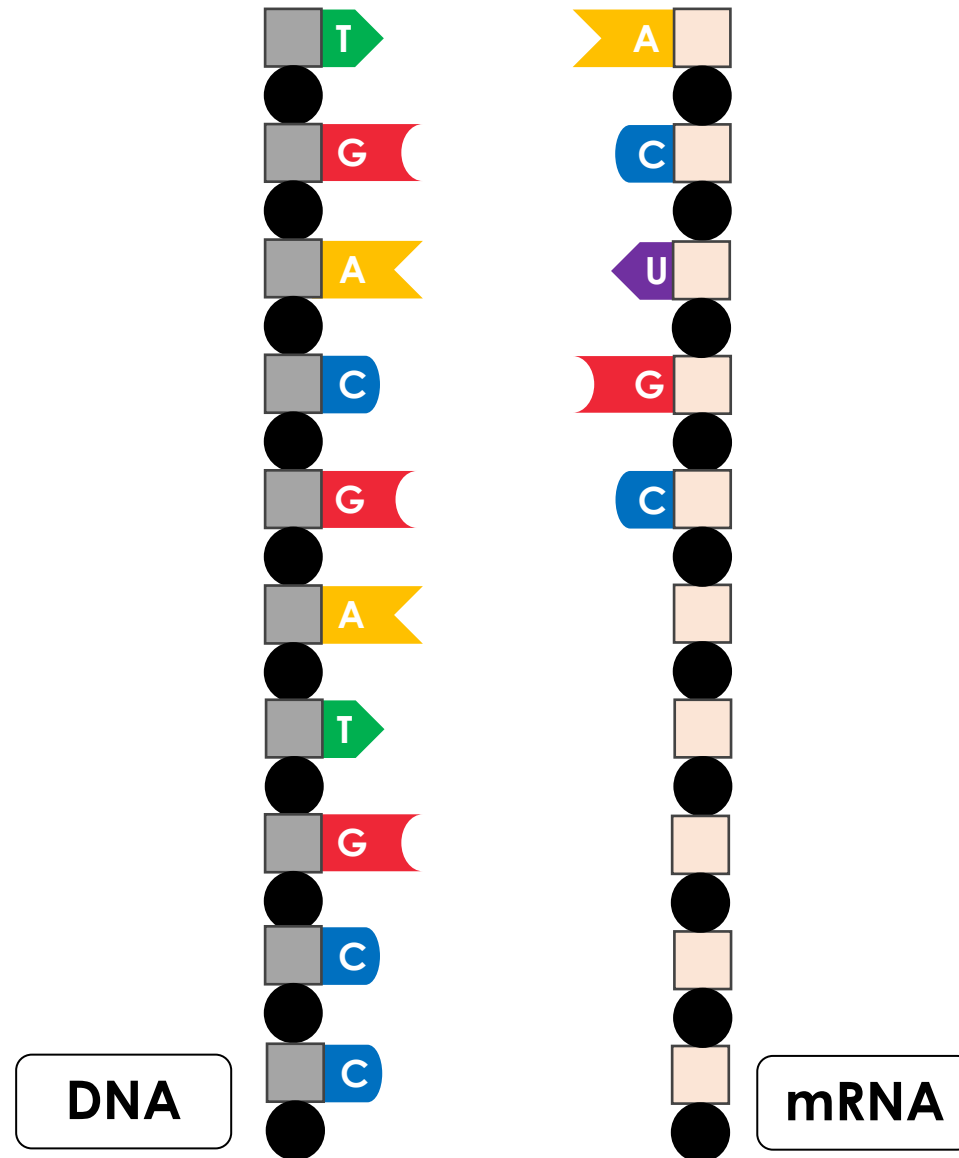
Transkribiere die DNA-string in 'n mRNA-string.



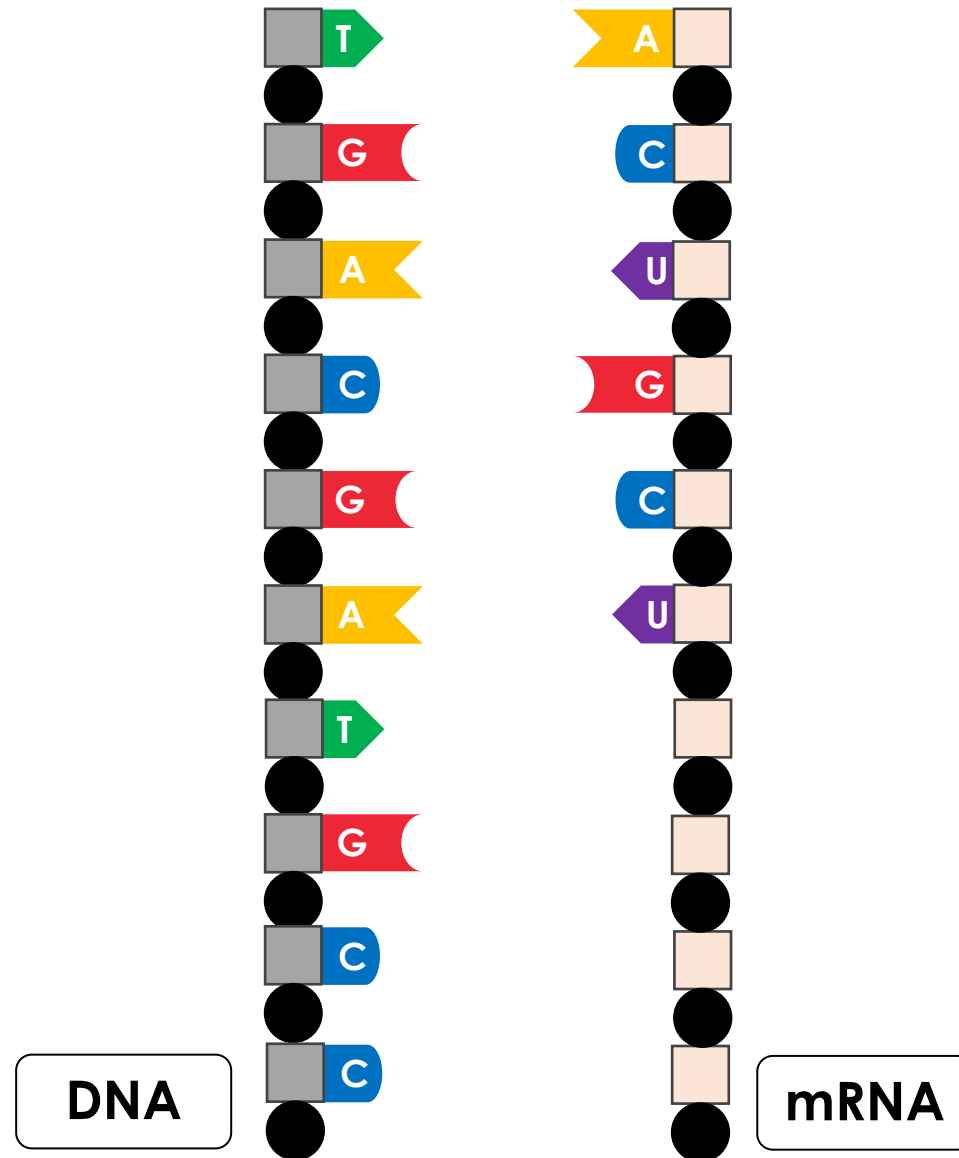
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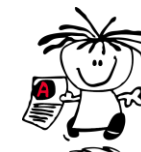
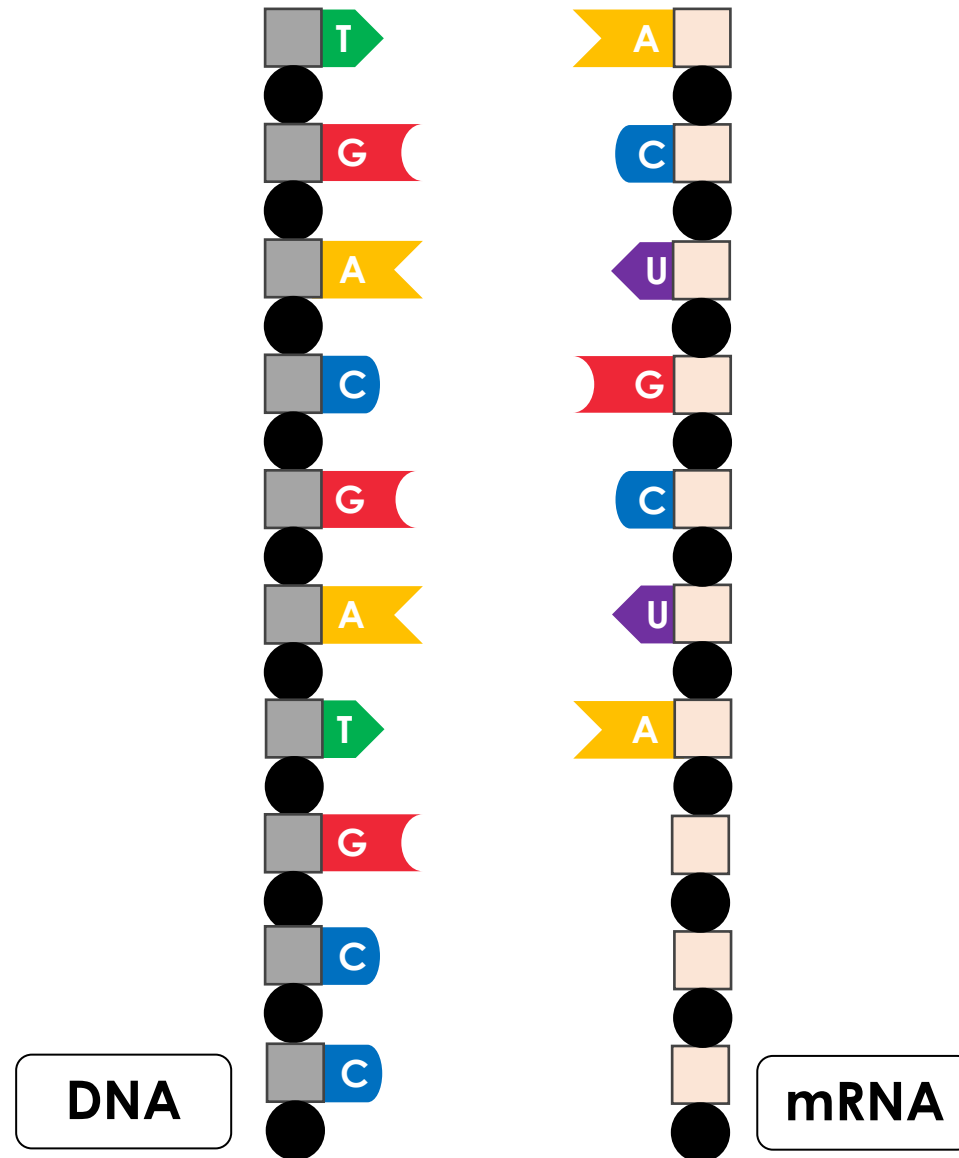
Transkribiere die DNA-string in 'n mRNA-string.



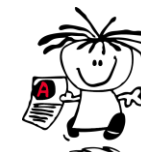
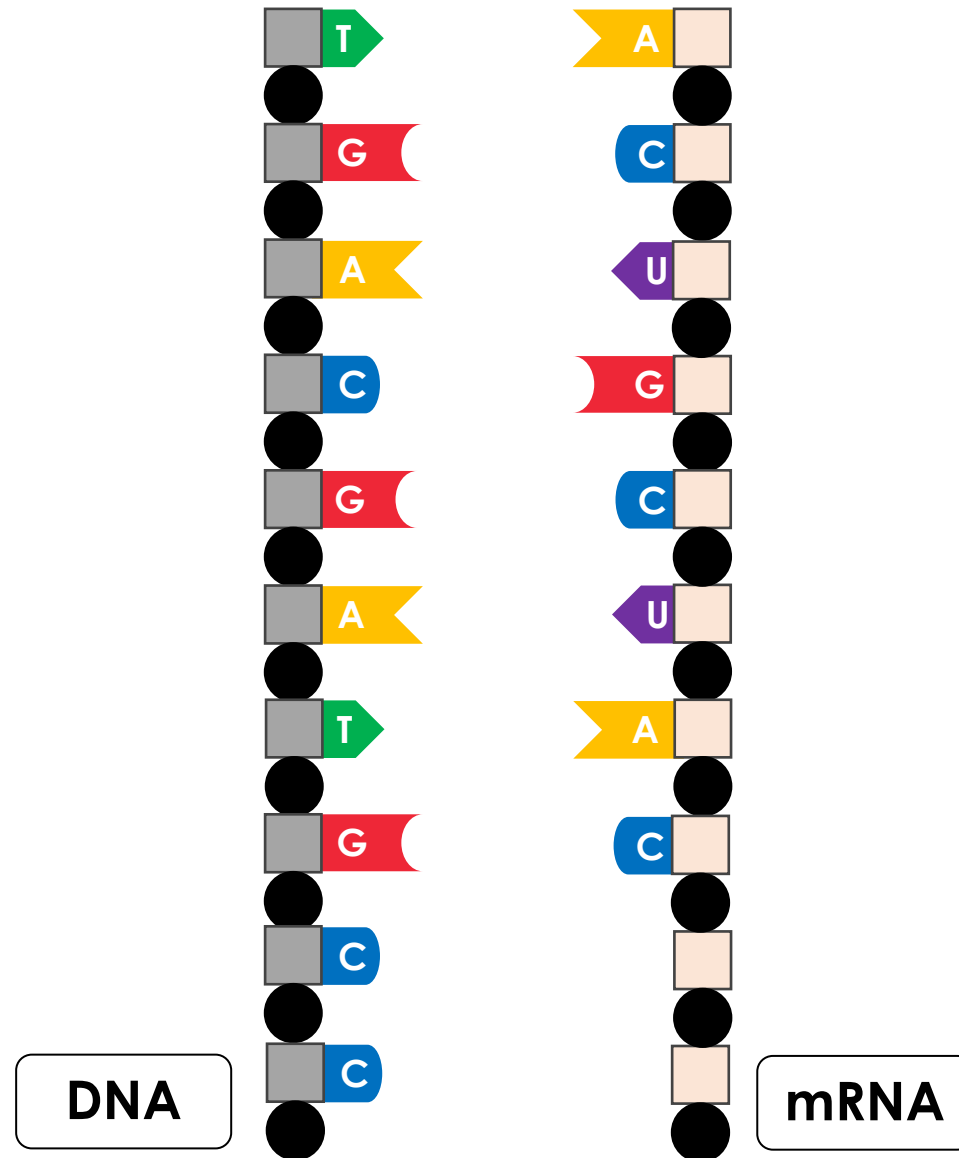
Transkribiere die DNA-string in 'n mRNA-string.



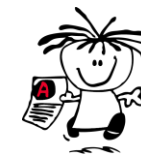
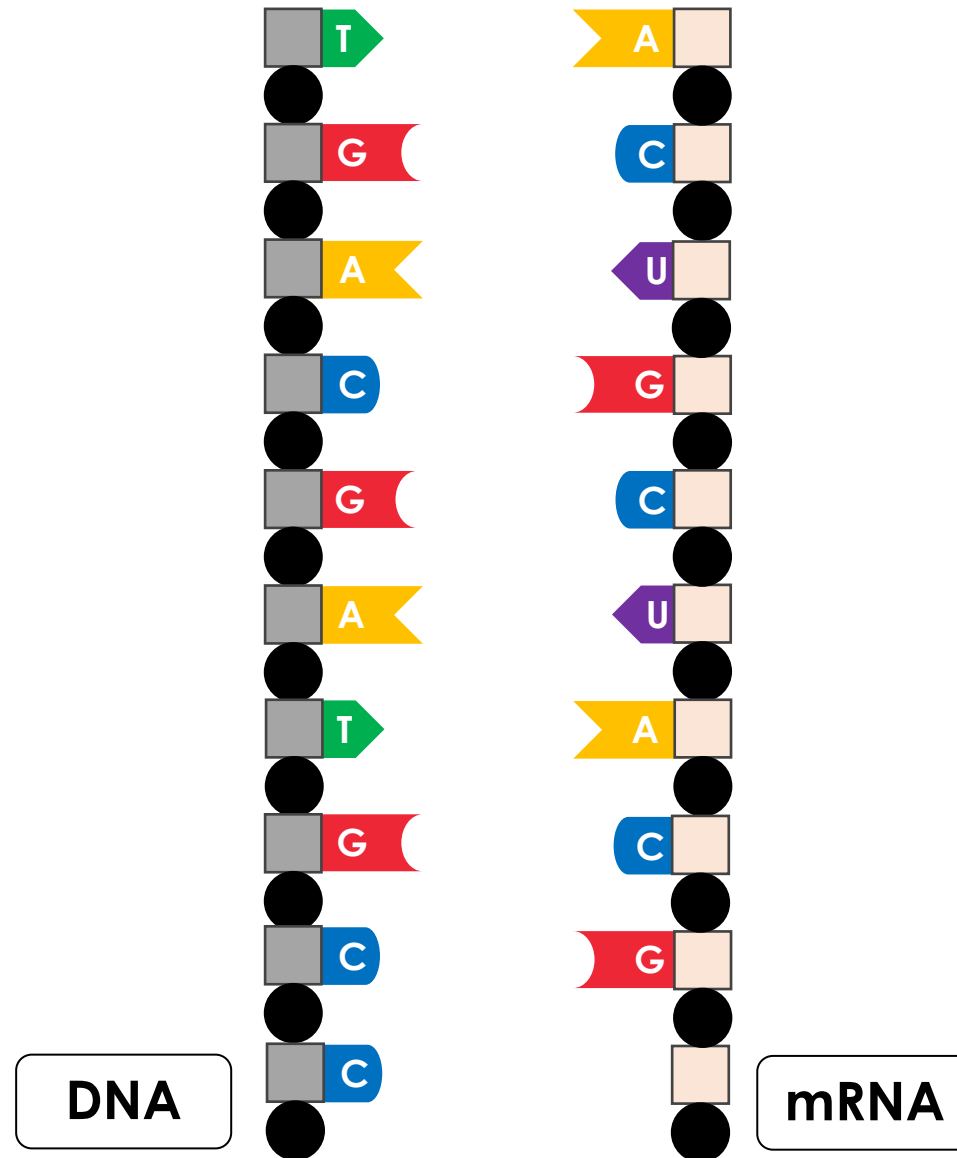
Transkribiere die DNA-string in 'n mRNA-string.



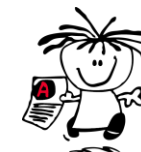
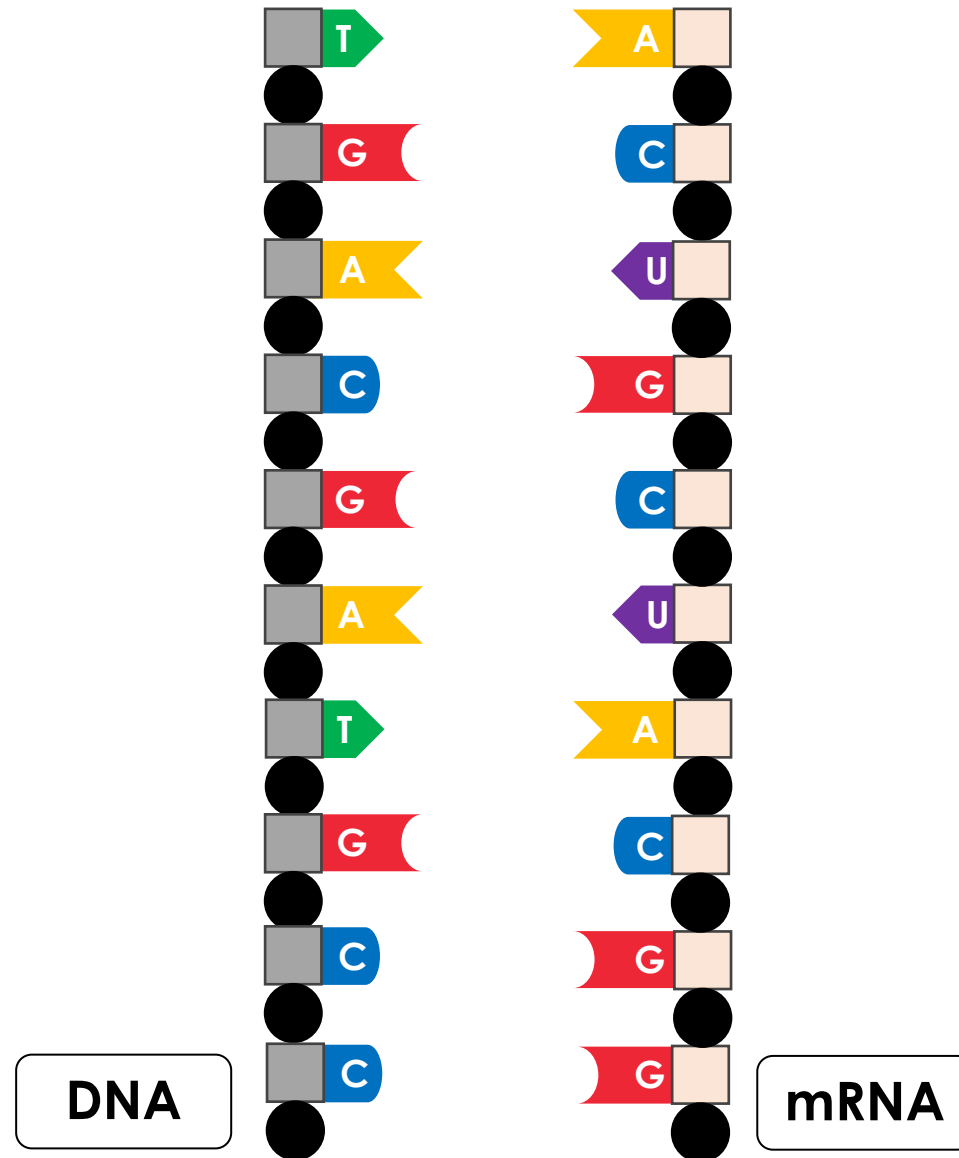
Transkribiere die DNA-string in 'n mRNA-string.



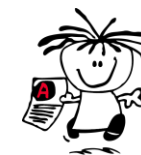
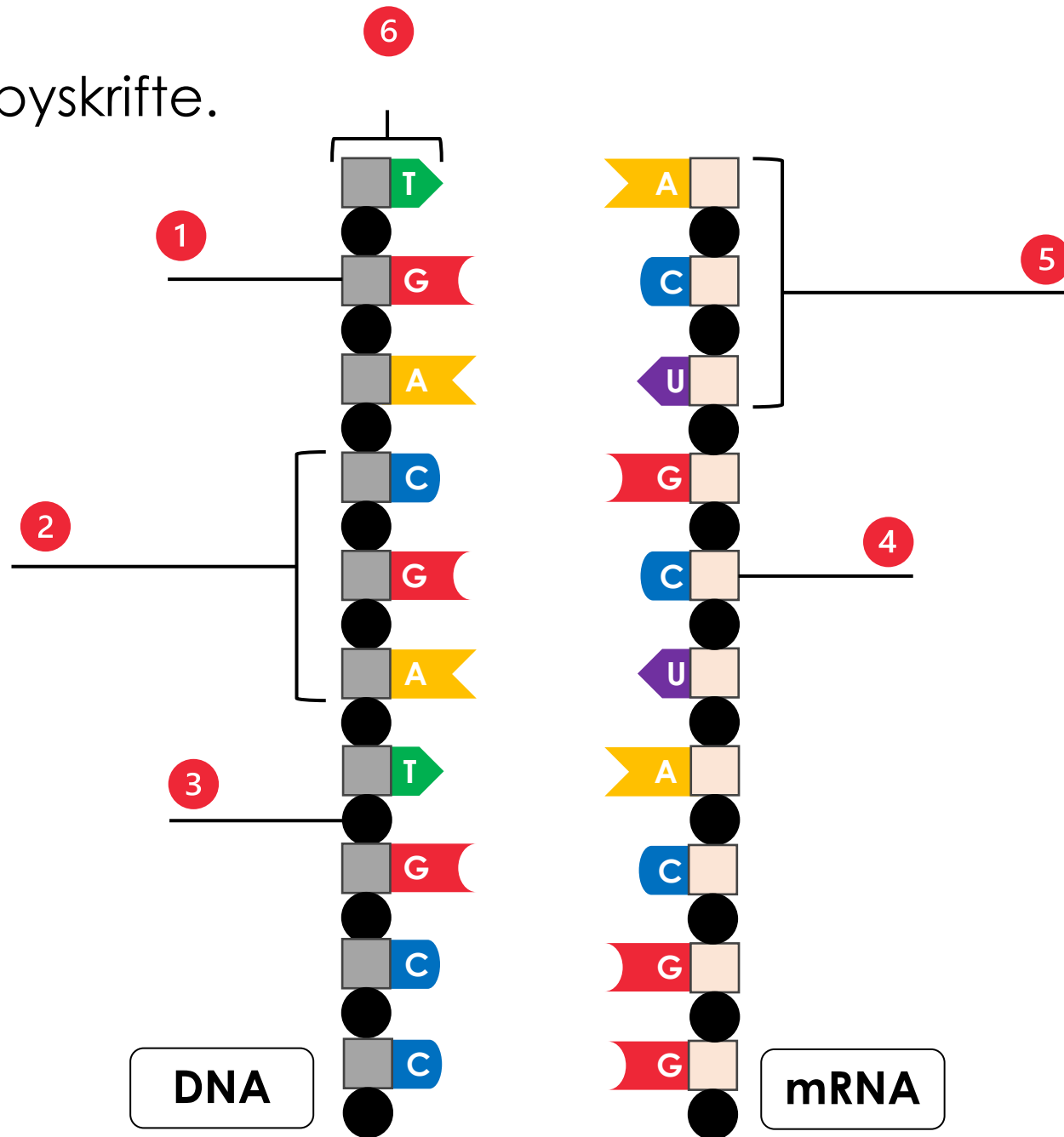
Transkribiere die DNA-string in 'n mRNA-string.



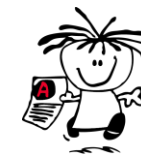
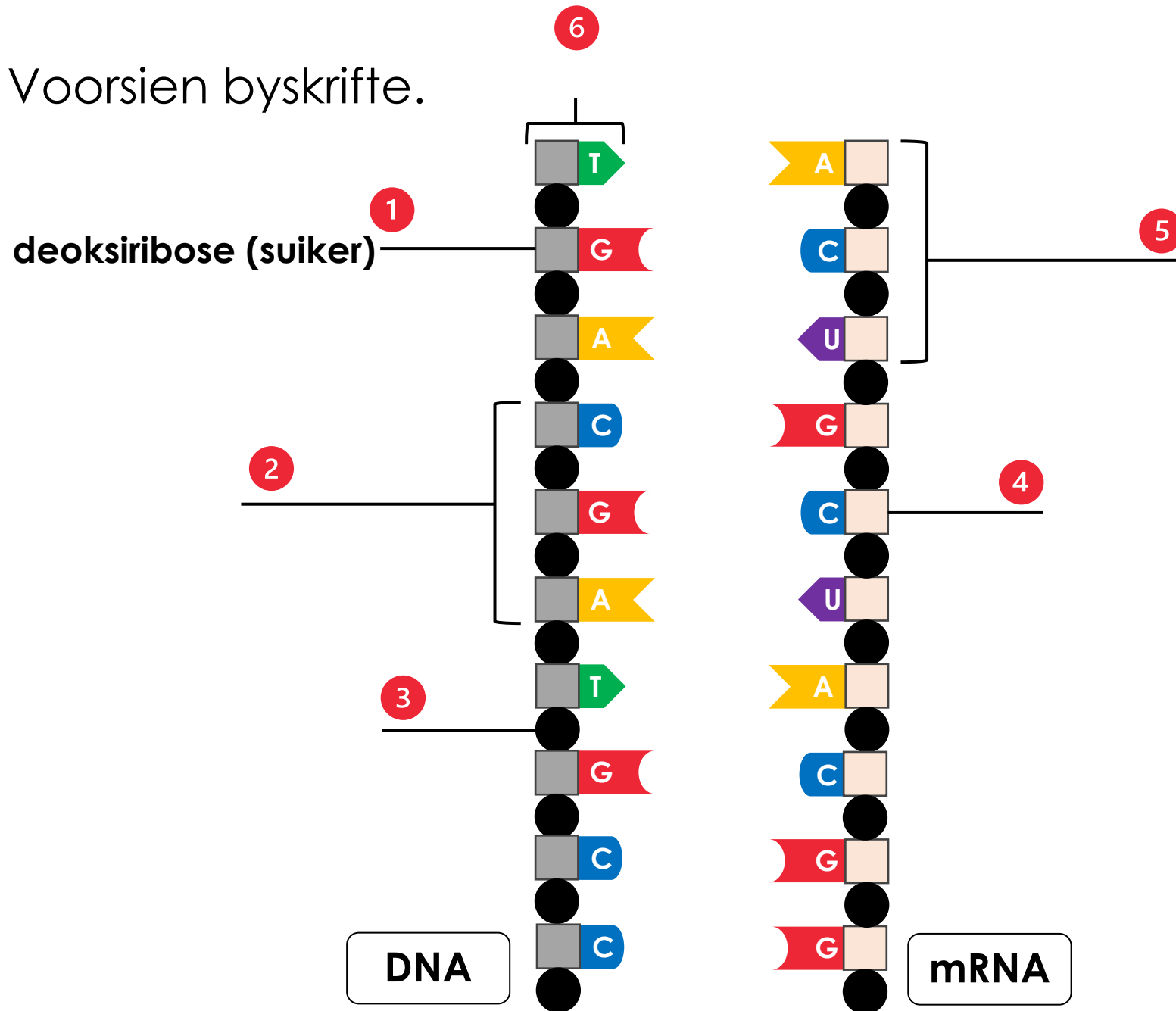
Transkribiere die DNA-string in 'n mRNA-string.



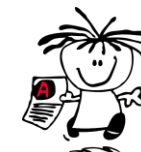
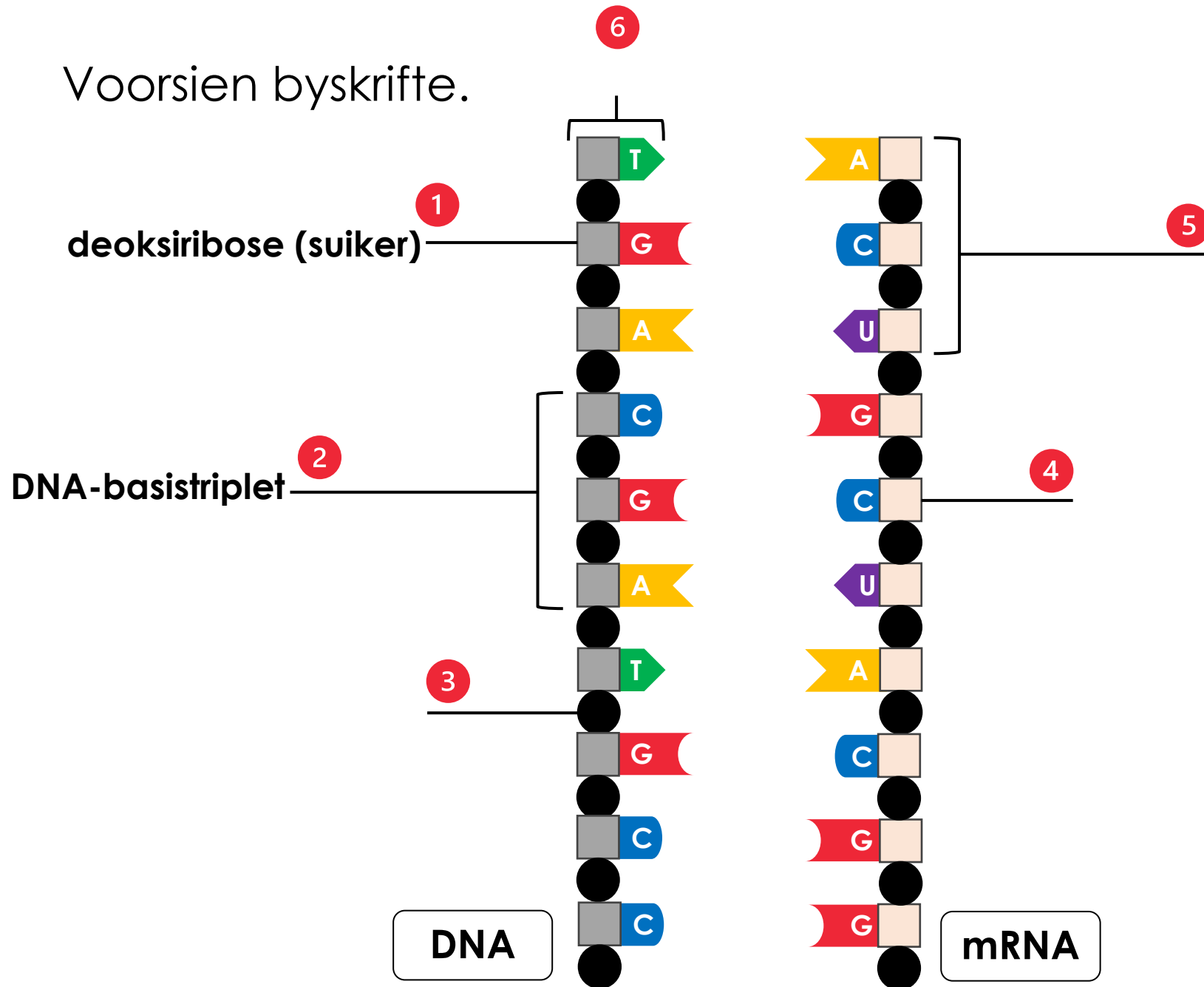
Voorsien byskrifte.



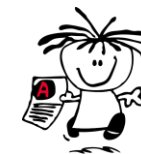
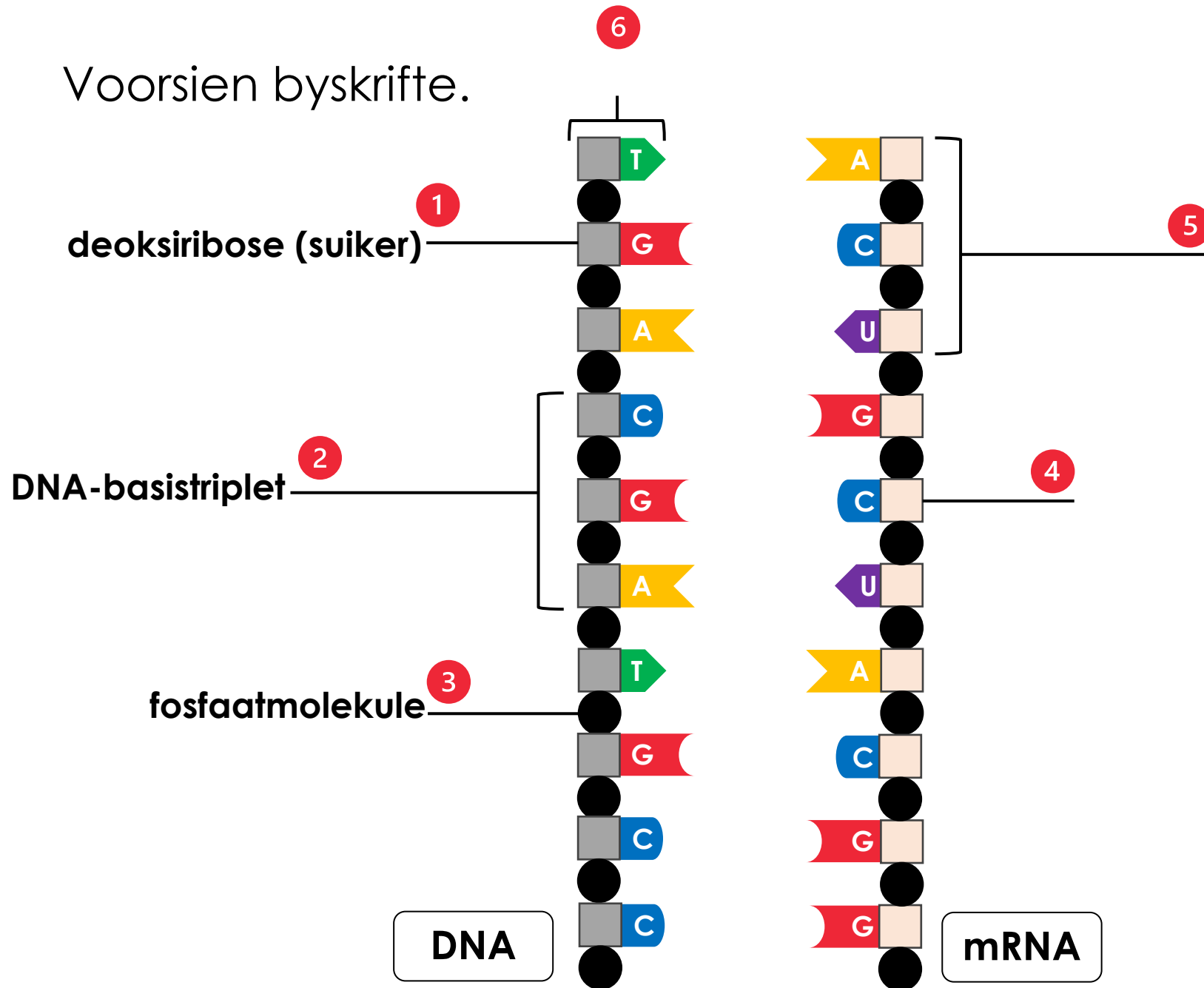
Voorsien byskrifte.



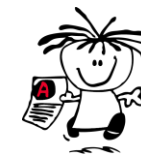
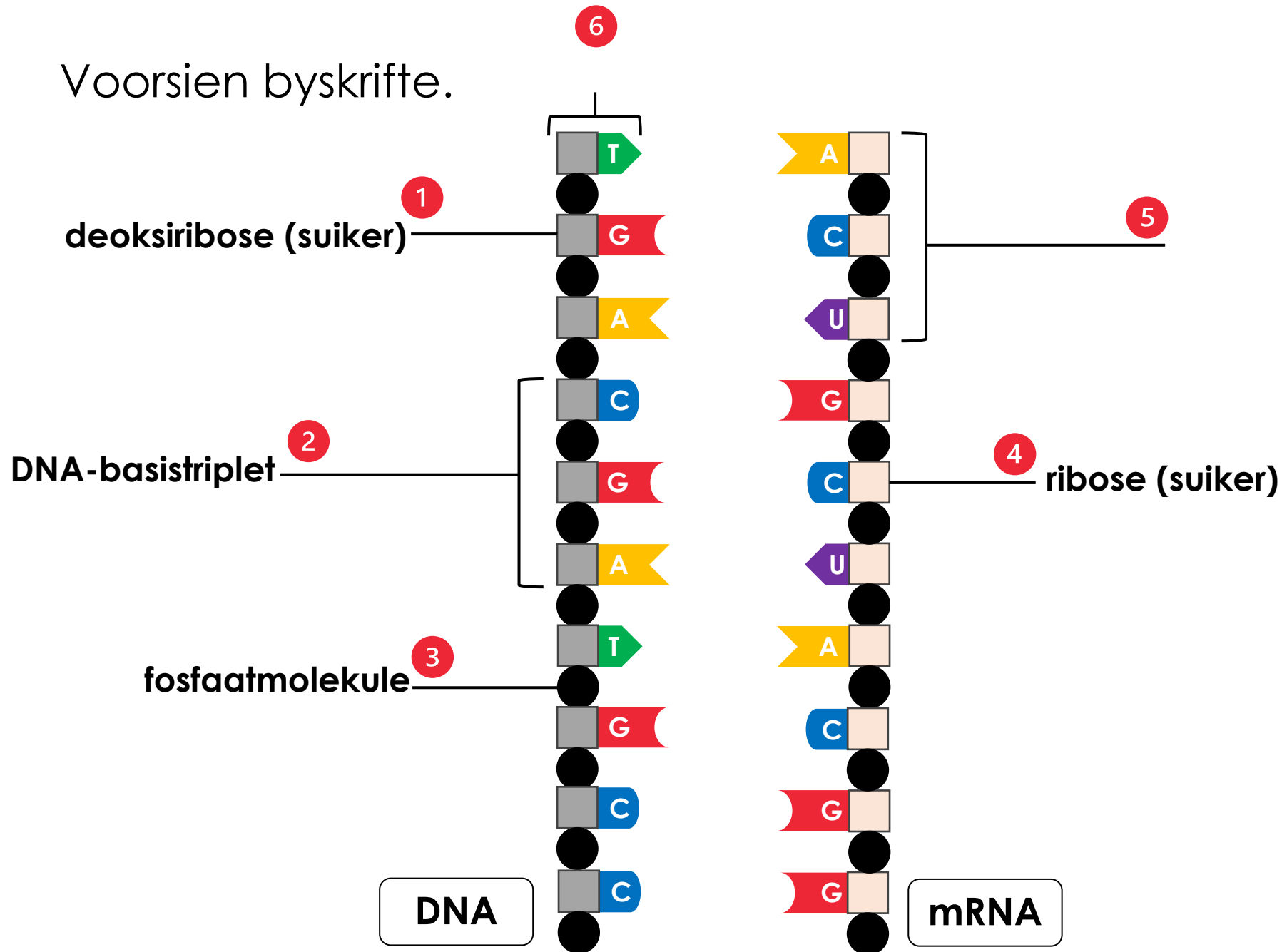
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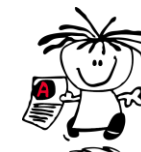
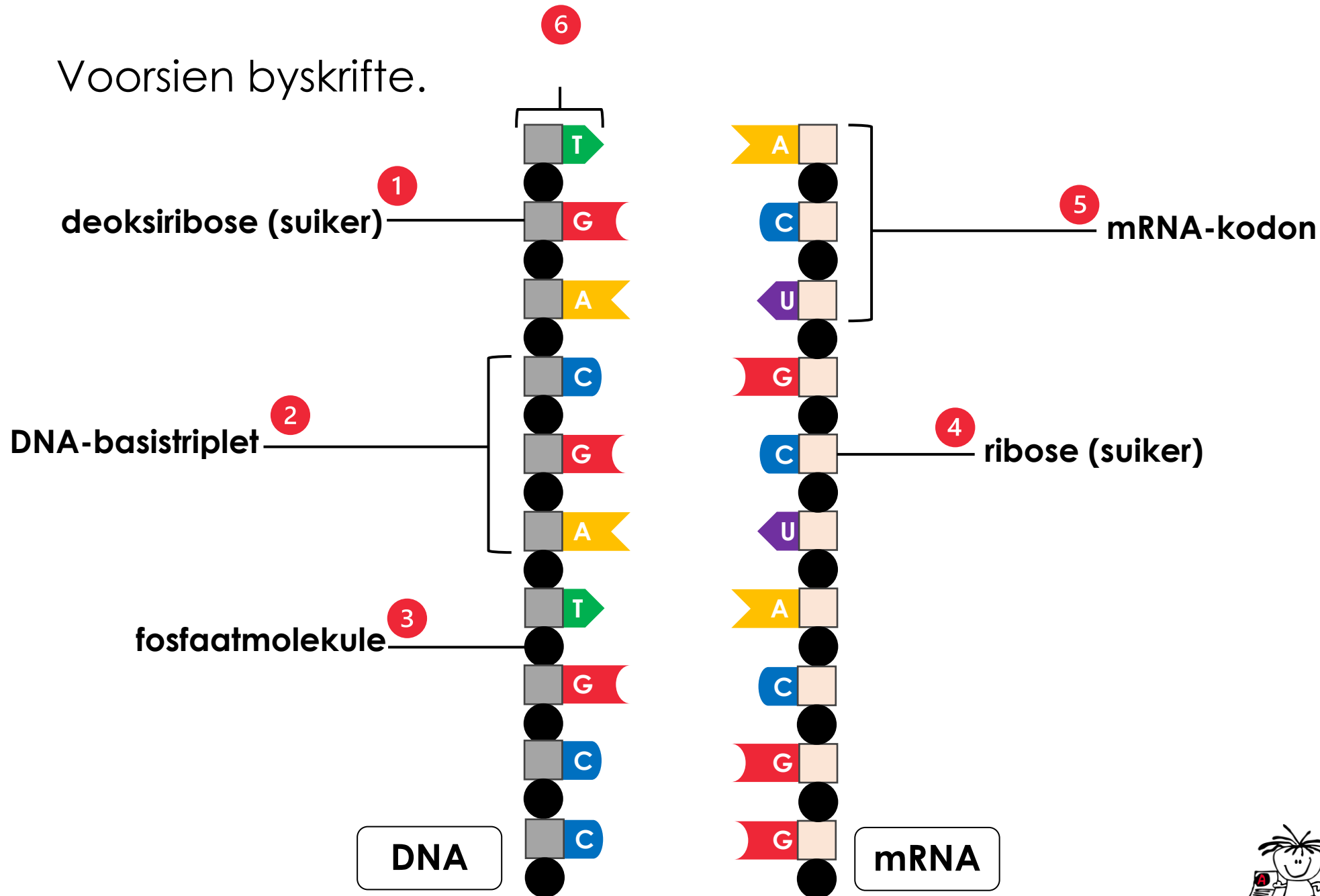
Voorsien byskrifte.



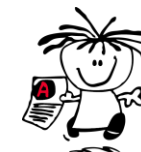
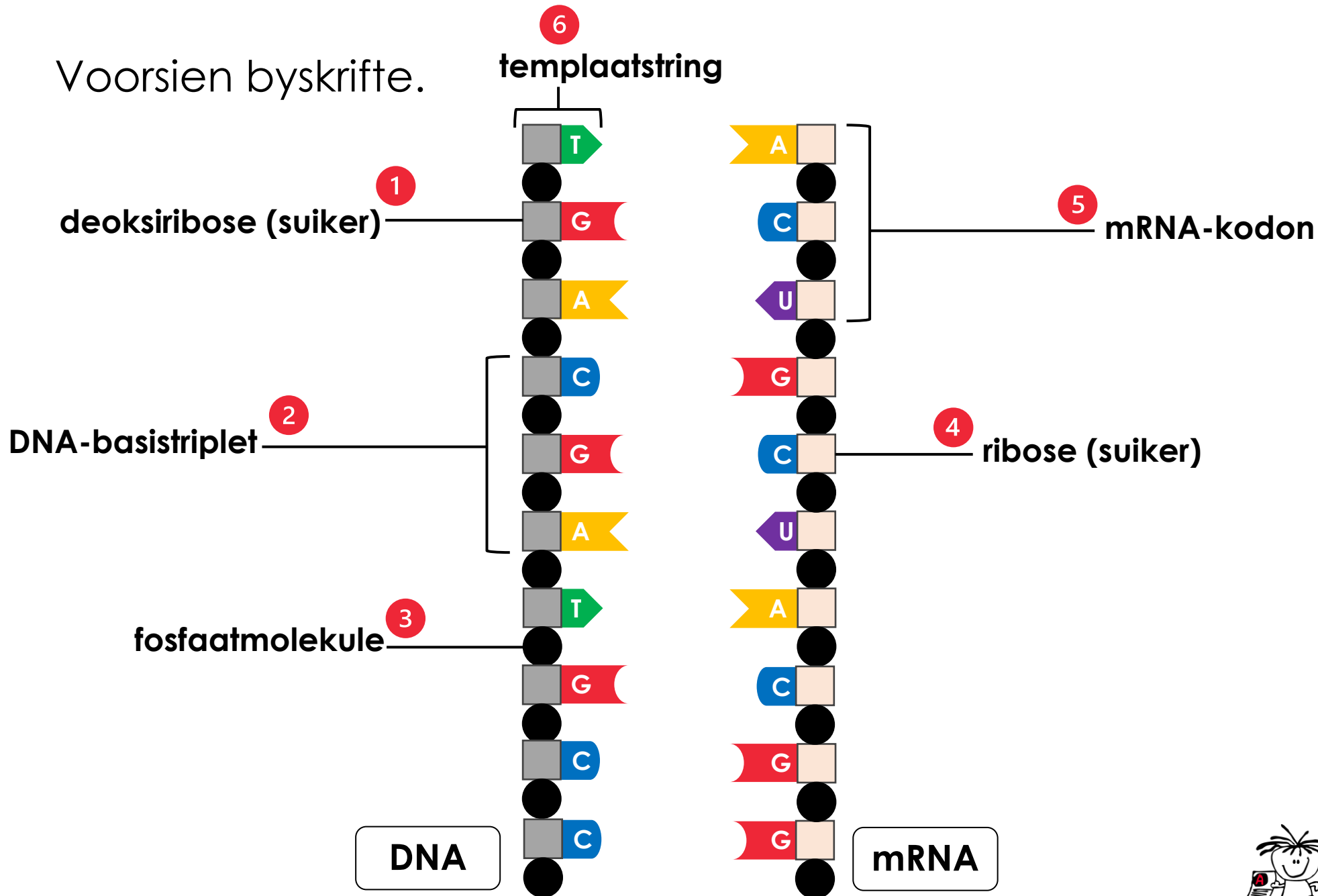
Voorsien byskrifte.



Voorsien byskrifte.



Voorsien byskrifte.



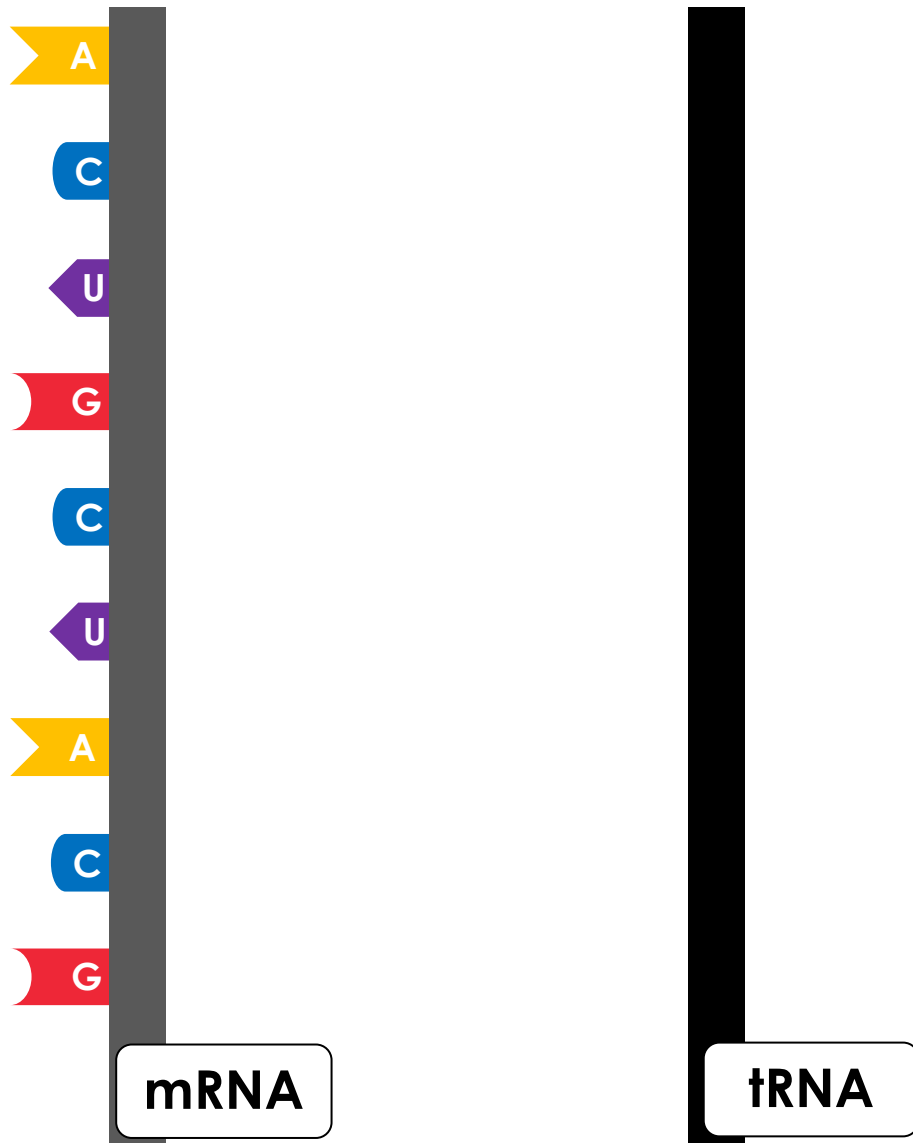
TRANSLASIE

1 Transleer die mRNA-string in 'n aminosuurvolgorde.



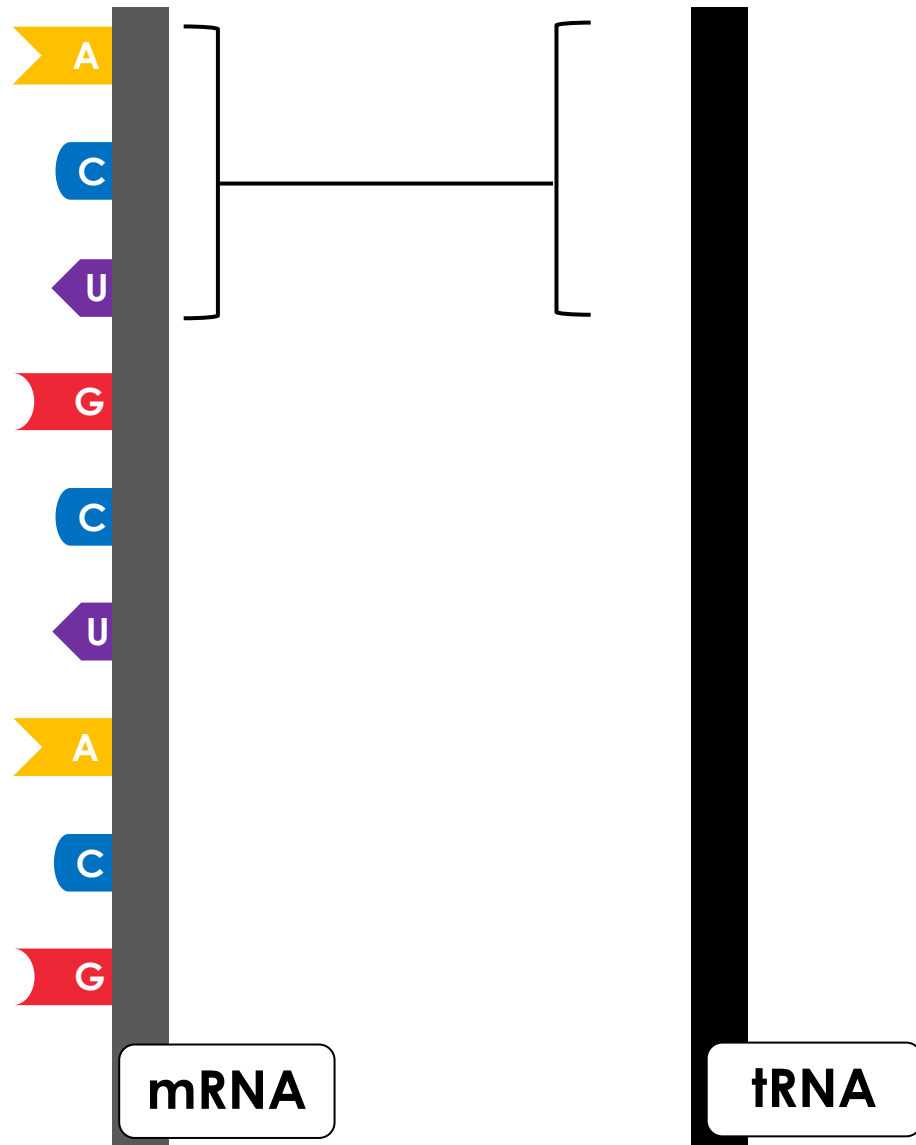
tRNA-antikodon	aminozuur
UGC	Ser
UUA	Asn
UGA	Thr
GCG	Arg
CGA	Ala

1 Transleer die mRNA-string in 'n aminosuurvolgorde.



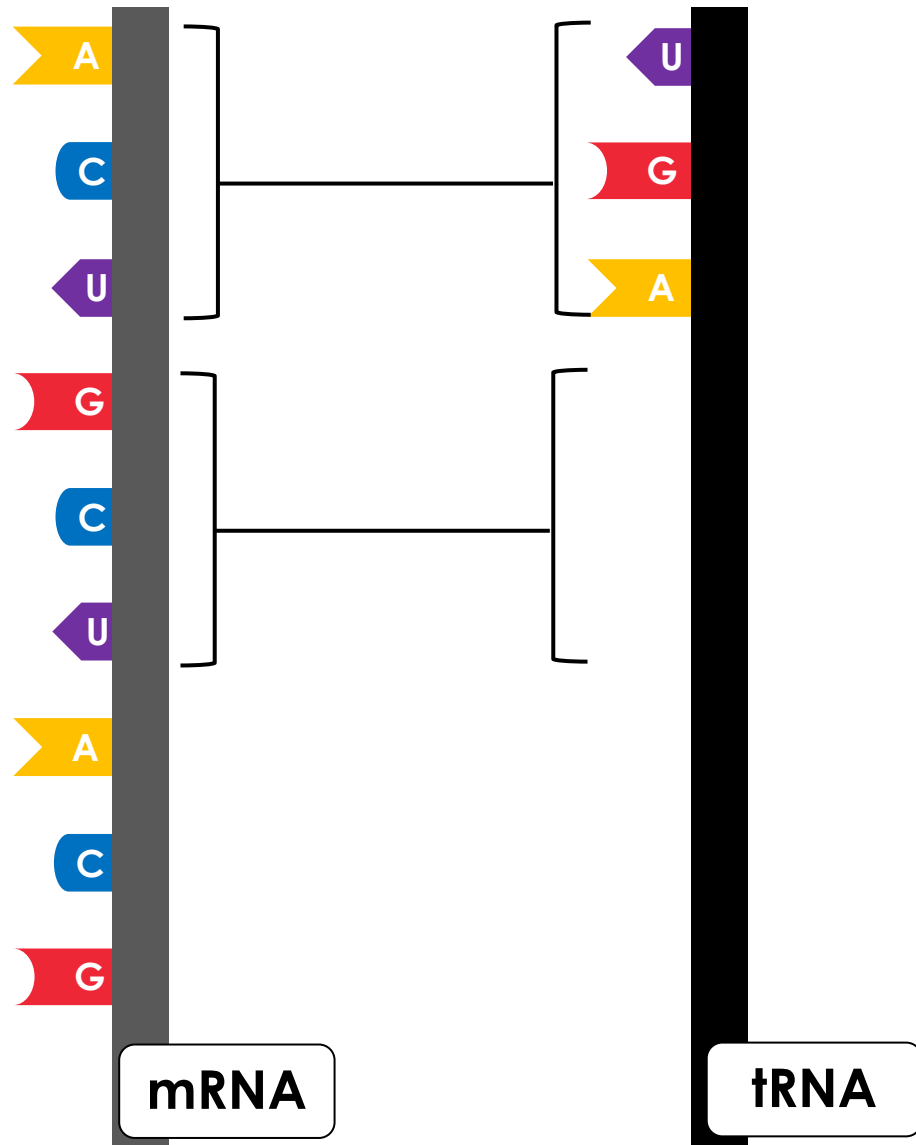
tRNA-antikodon	aminozuur
UGC	Ser
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UGA	Thr
GCG	Arg
CGA	Ala

1 Transleer die mRNA-string in 'n aminosuurvolgorde.



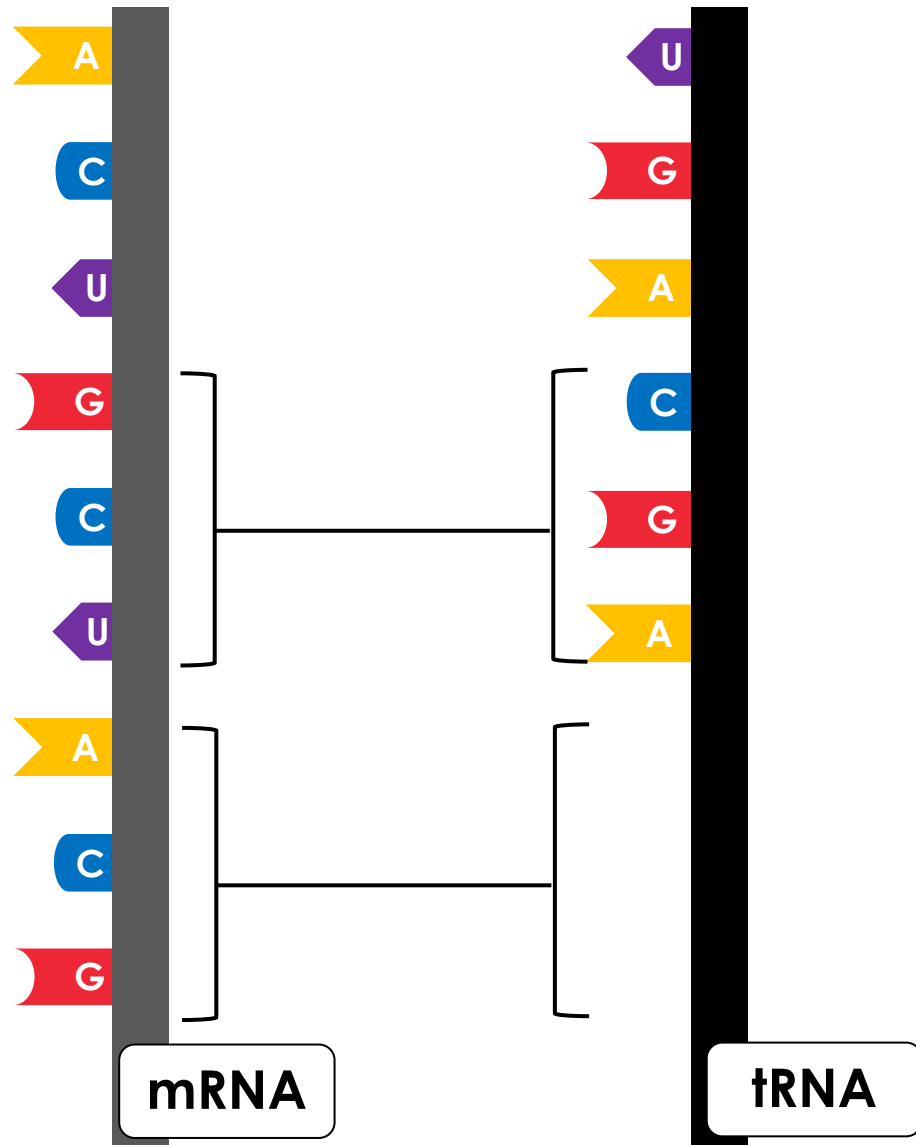
tRNA-antikodon	aminozuur
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UGA	Thr
GCG	Arg
CGA	Ala

1 Transleer die mRNA-string in 'n aminosuurvolgorde.



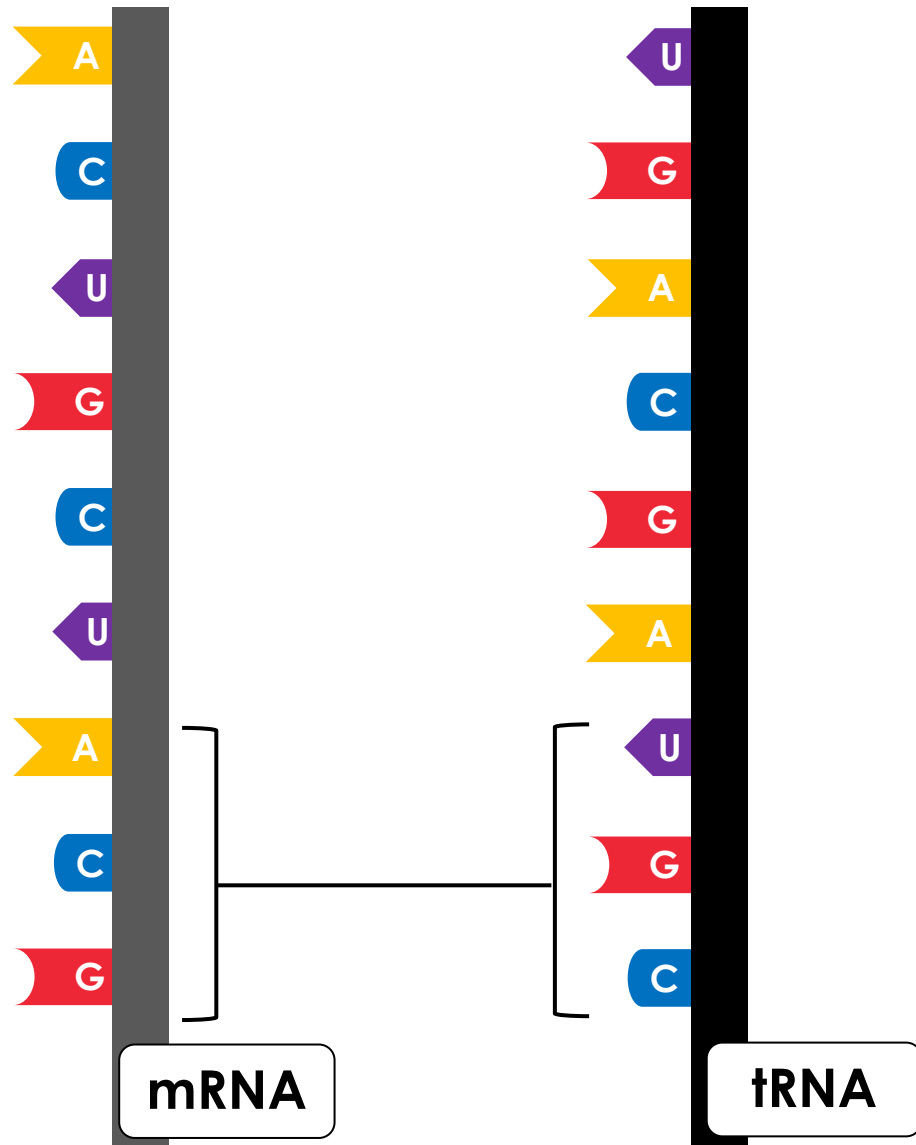
tRNA-antikodon	aminozuur
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UUA	Asn
UGA	Thr
GCG	Arg
CGA	Ala

1 Transleer die mRNA-string in 'n aminosuurvolgorde.



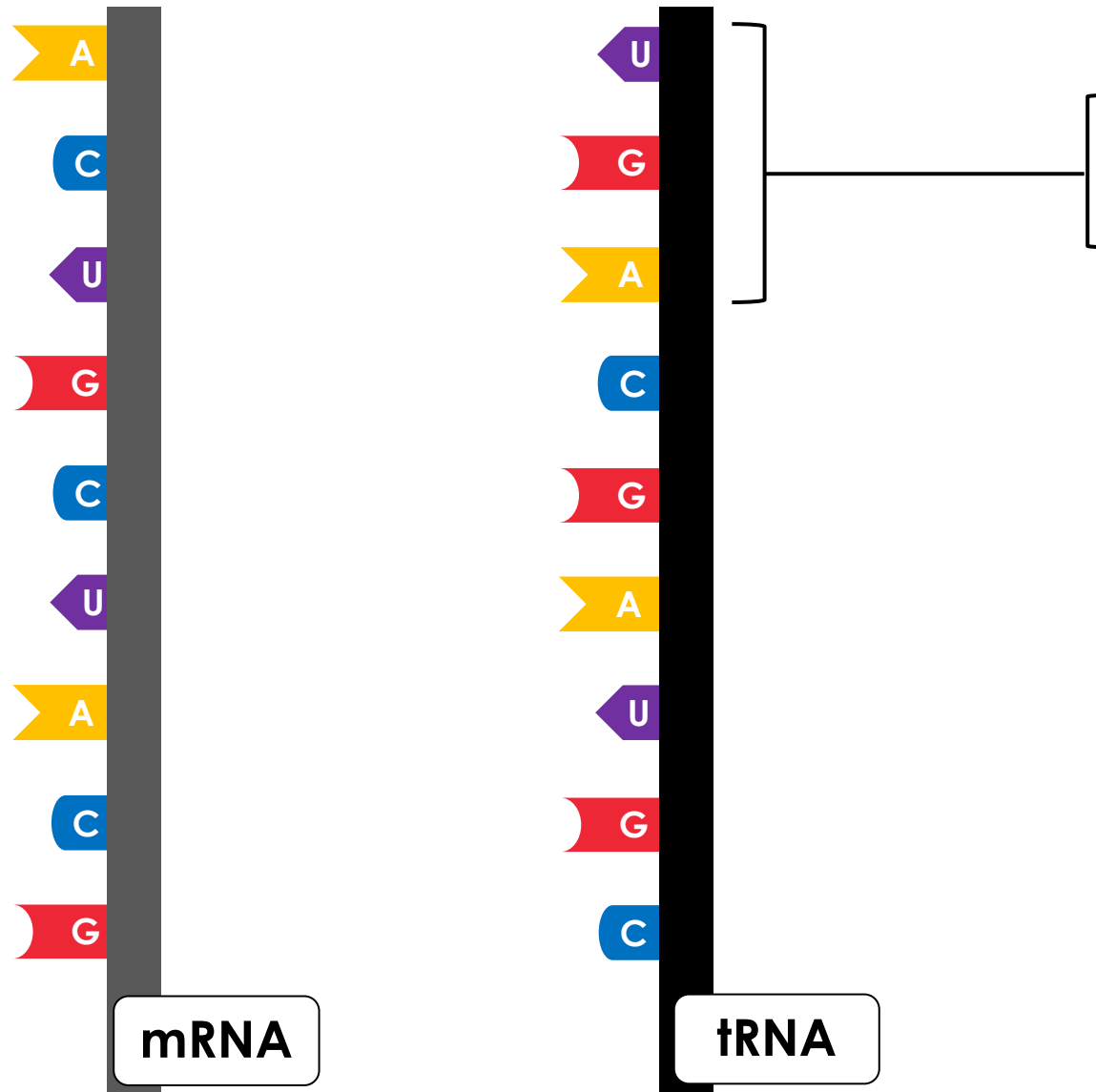
tRNA-antikodon	aminozuur
UGC	Ser
UUA	Asn
UGA	Thr
GCG	Arg
CGA	Ala

1 Transleer die mRNA-string in 'n aminosuurvolgorde.



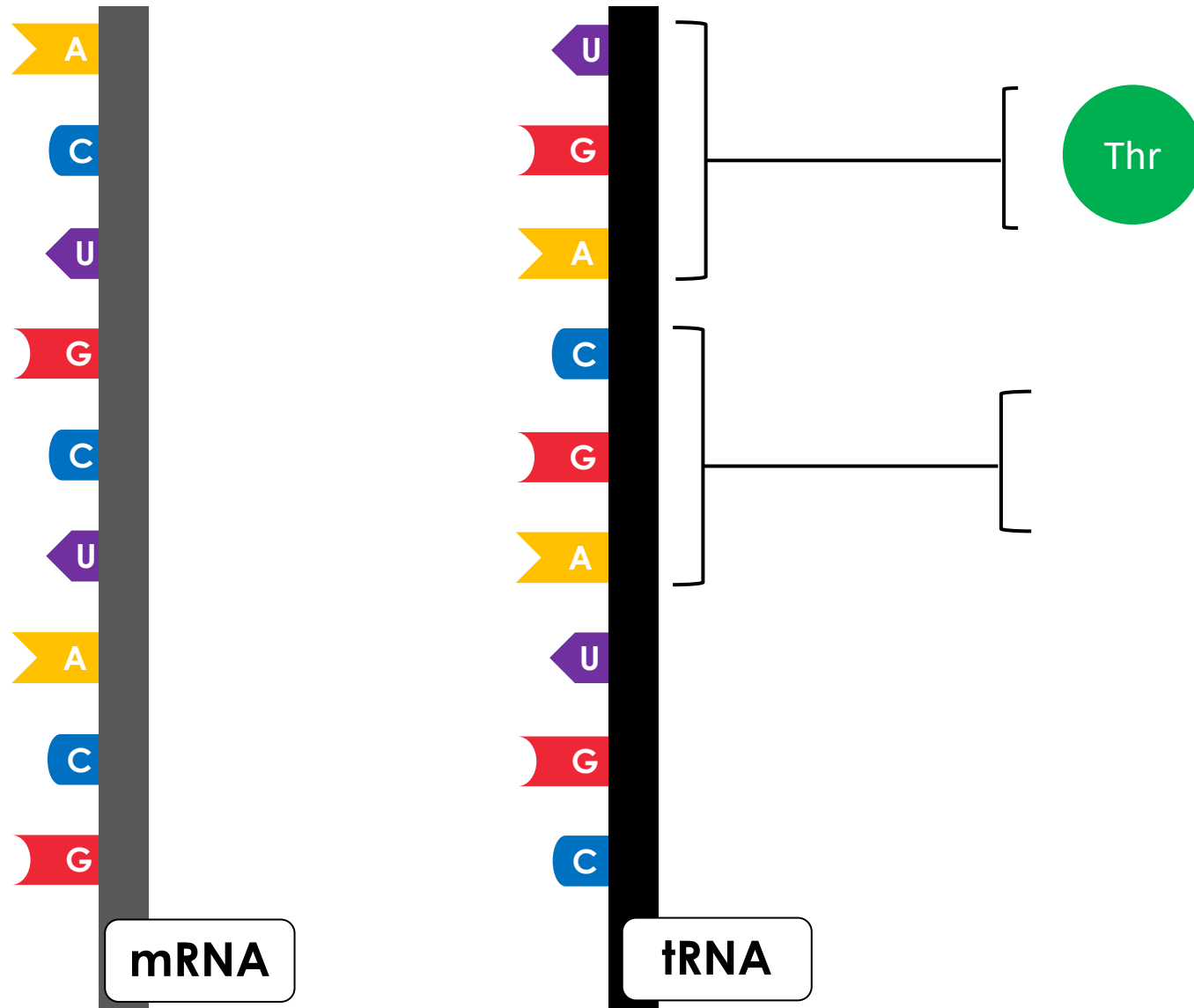
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UGA	Thr
GCG	Arg
CGA	Ala

1 Transleer die mRNA-string in 'n aminosuurvolgorde.



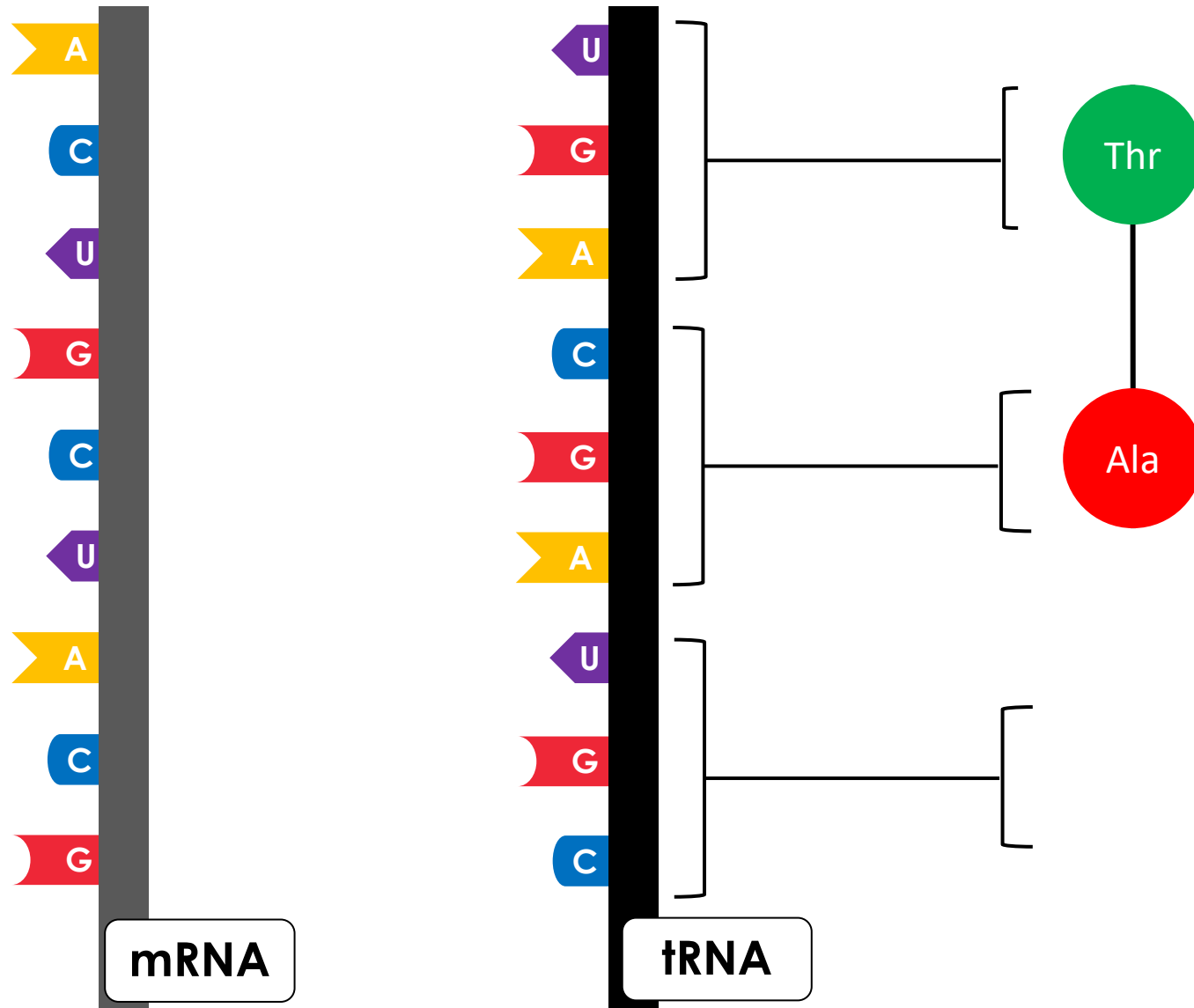
tRNA-antikodon	aminozuur
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UGA	Thr
GCG	Arg
CGA	Ala

1 Transleer die mRNA-string in 'n aminosuurvolgorde.



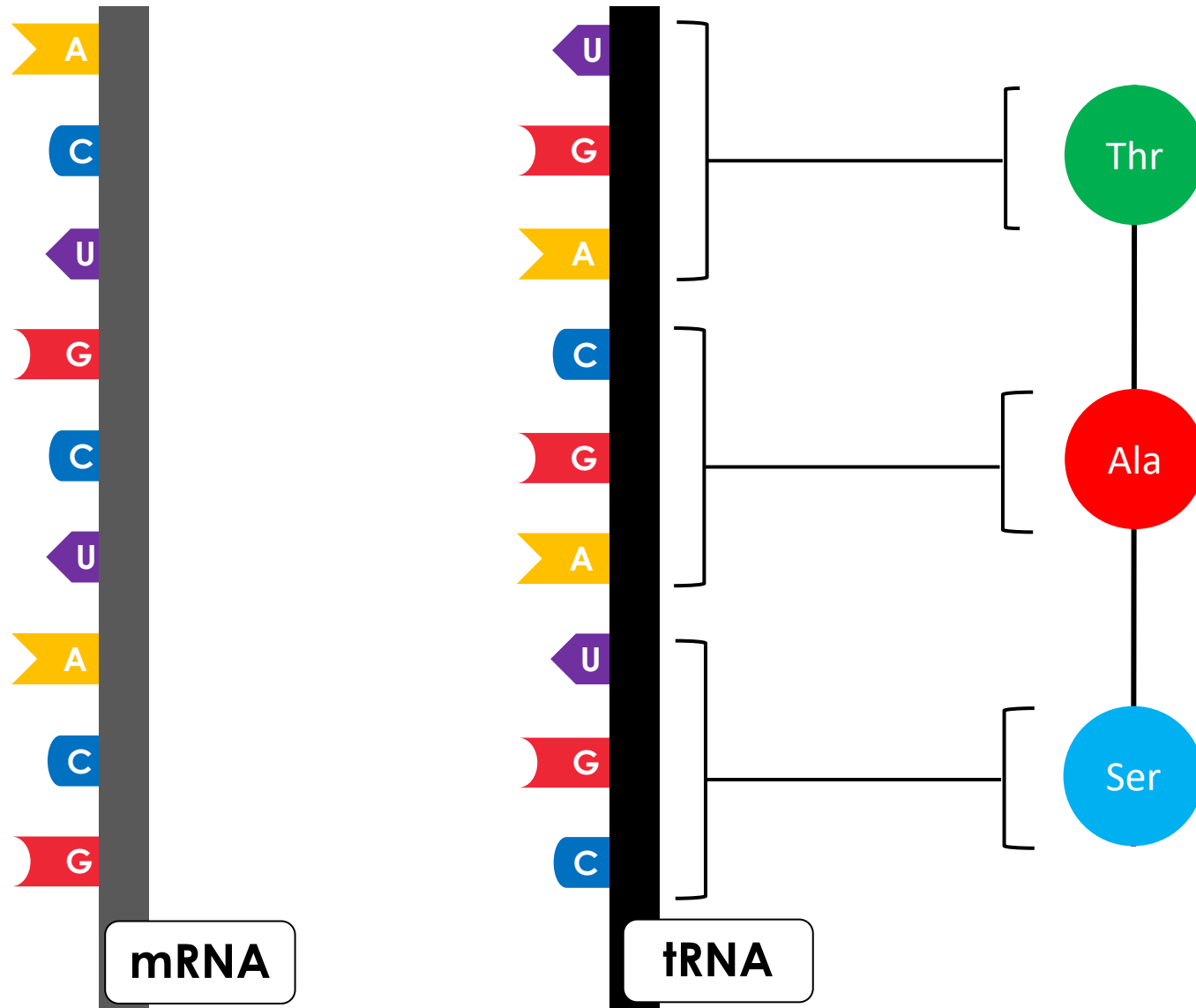
tRNA-antikodon	aminozuur
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UUA	Asn
UGA	Thr
GCG	Arg
CGA	Ala

1 Transleer die mRNA-string in 'n aminosuurvolgorde.



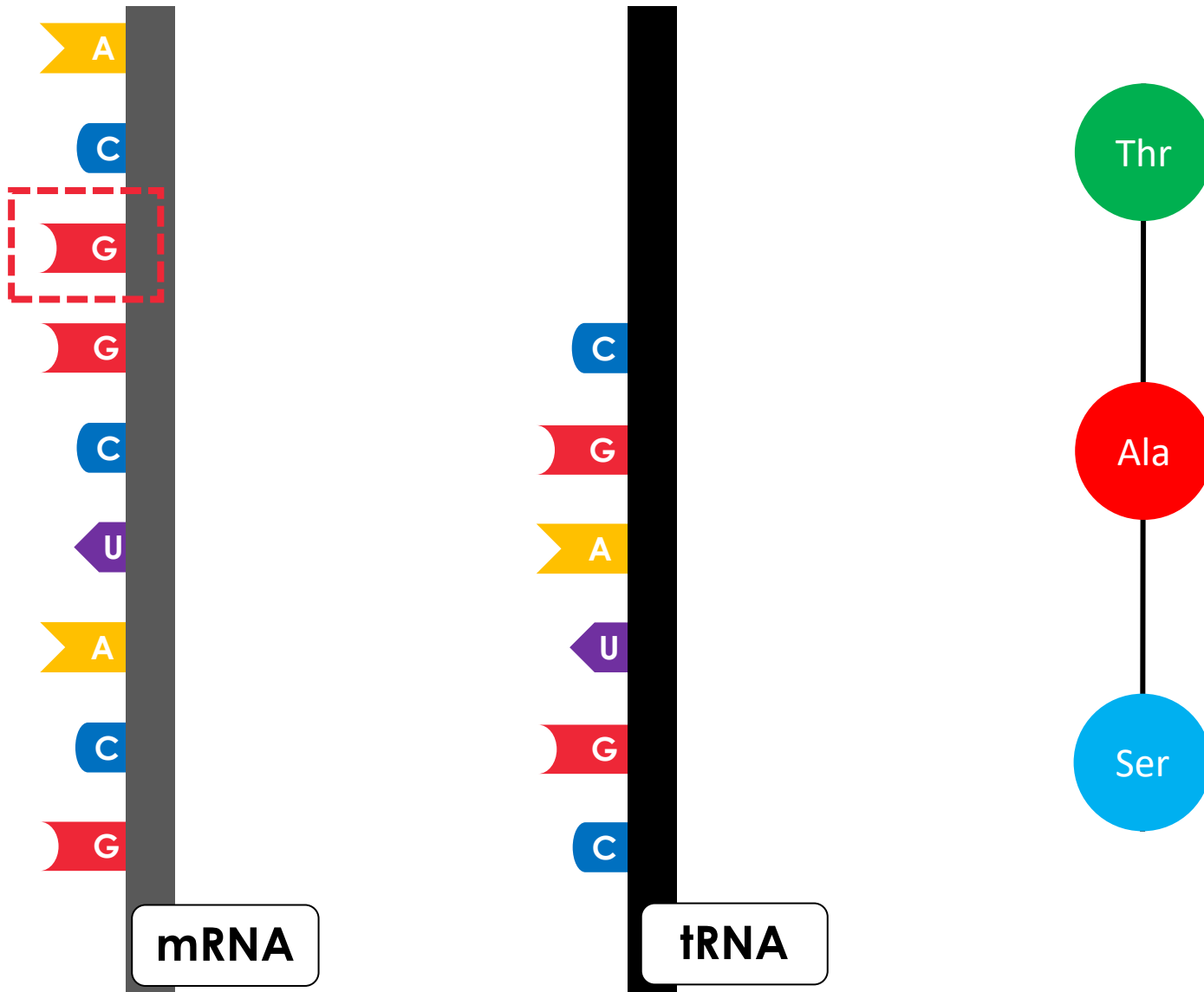
tRNA-antikodon	aminozuur
UGC	Ser
UUA	Asn
UGA	Thr
GCG	Arg
CGA	Ala

1 Transleer die mRNA-string in 'n aminosuurvolgorde.



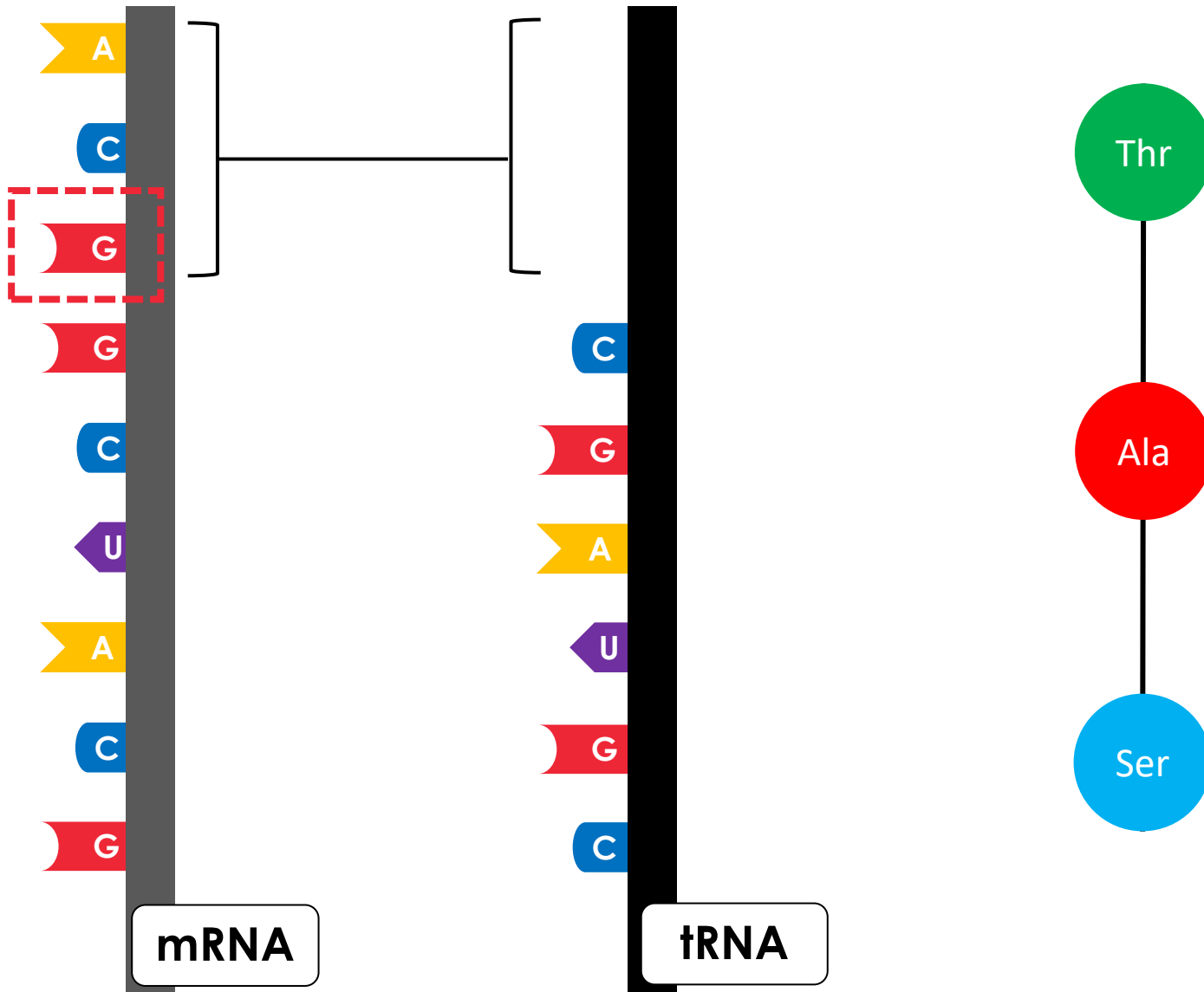
tRNA-antikodon	aminozuur
UGC	Ser
UUA	Asn
UGA	Thr
GCG	Arg
CGA	Ala

2 Wat sal gebeur indien een mRNA-kodon verander word?



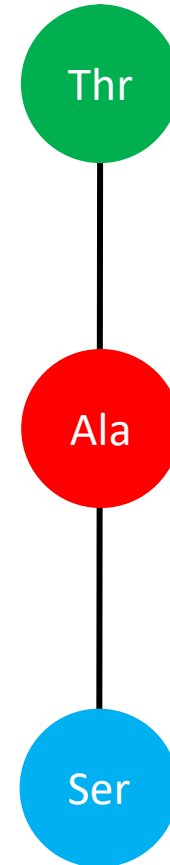
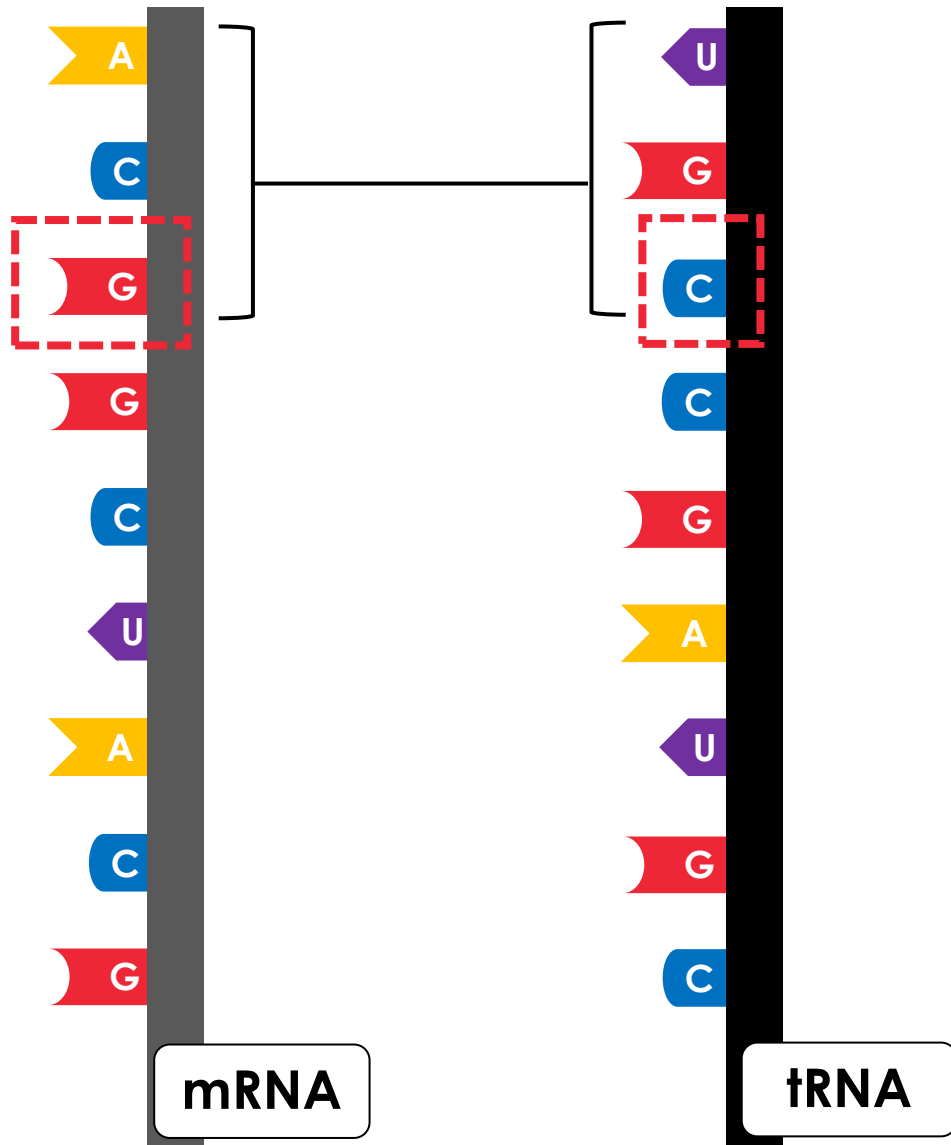
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UGC	Ser
UUA	Asn
UGA	Thr
GCG	Arg
CGA	Ala

2 Wat sal gebeur indien een mRNA-kodon verander word?



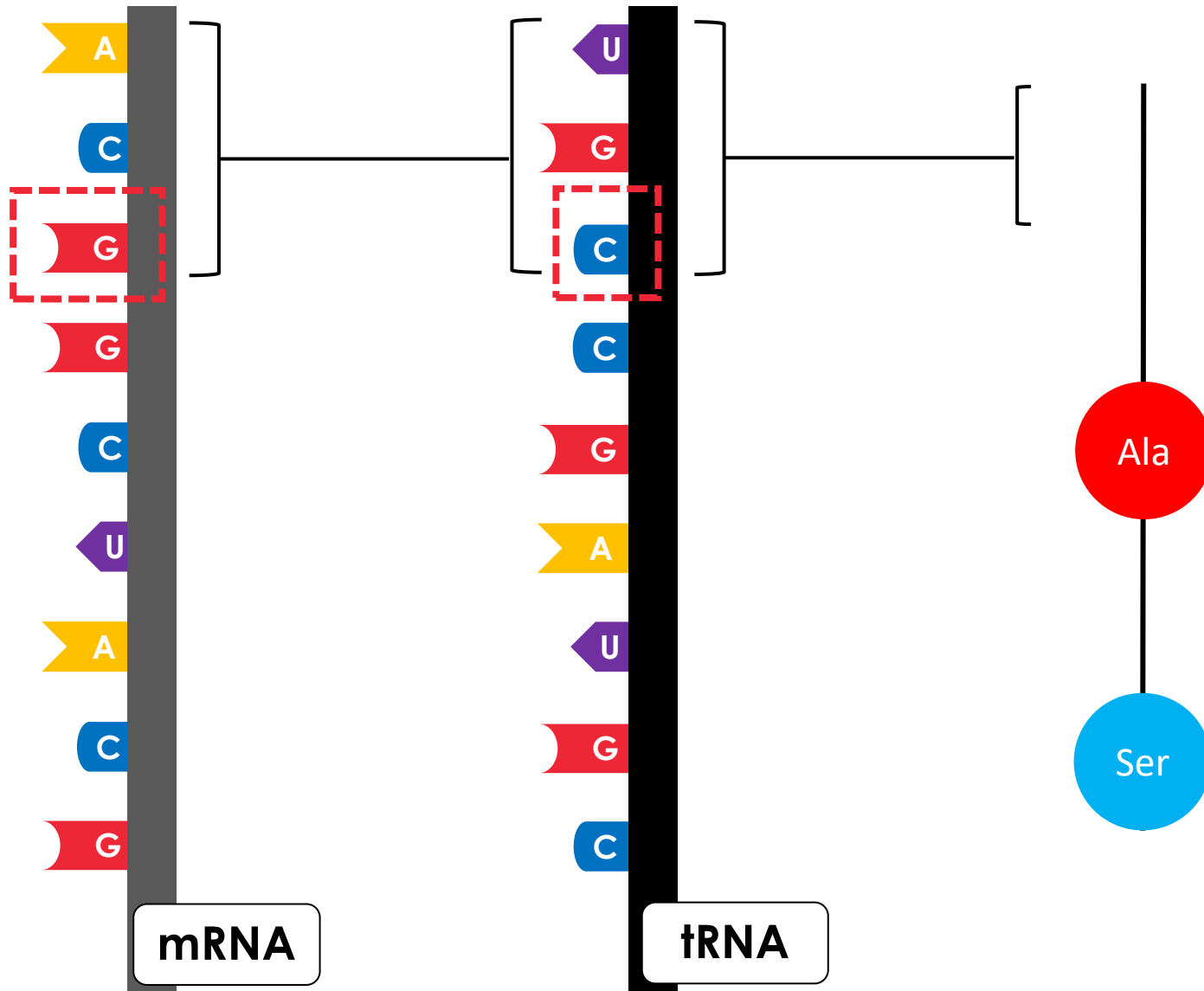
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UGC	Ser
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UGA	Thr
GCG	Arg
CGA	Ala

2 Wat sal gebeur indien een mRNA-kodon verander word?



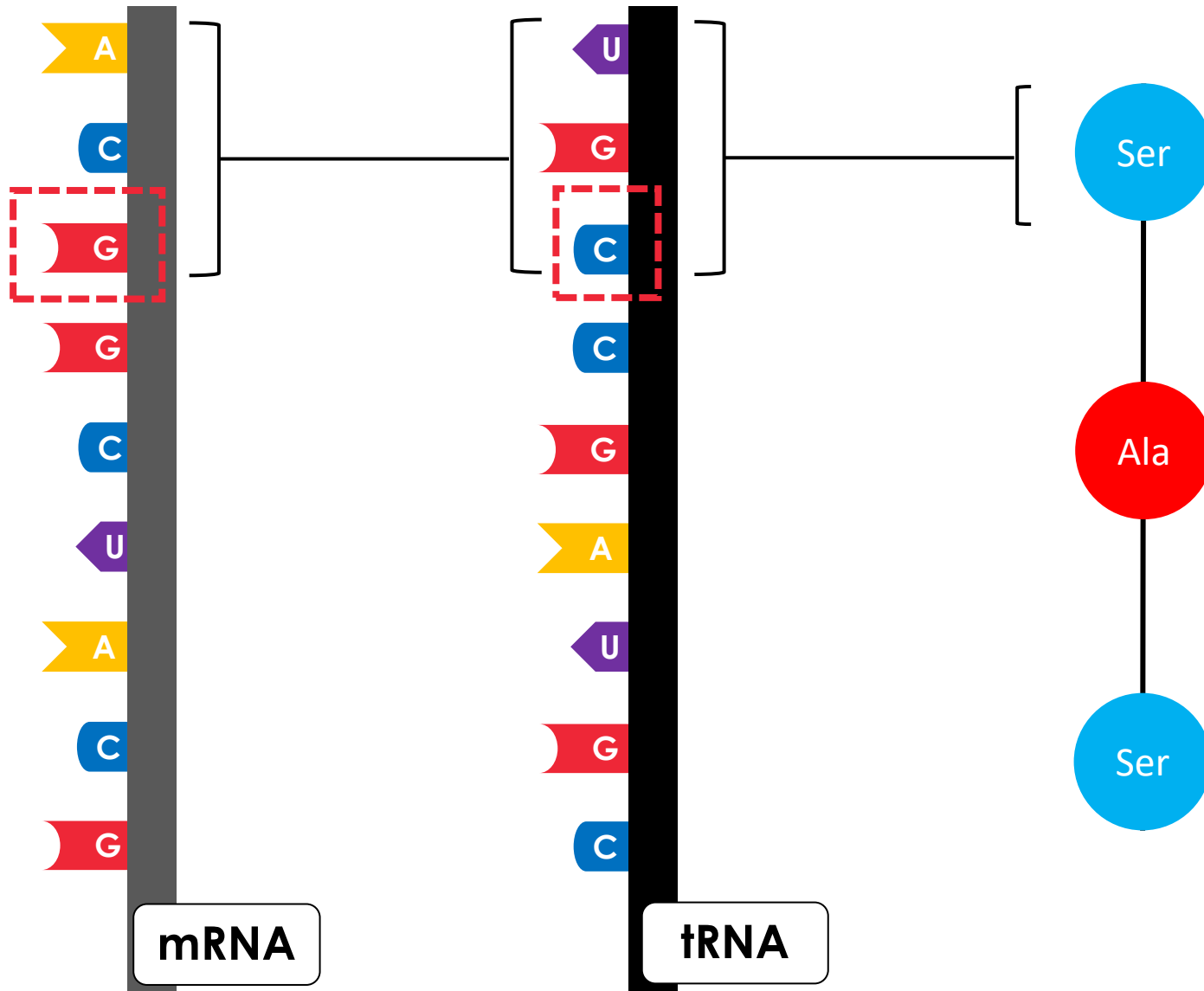
tRNA-antikodon	aminozuur
UGC	Ser
UUA	Asn
UGA	Thr
GCG	Arg
CGA	Ala

2 Wat sal gebeur indien een mRNA-kodon verander word?



tRNA-antikodon	aminozuur
UGC	Ser
UUA	Asn
UGA	Thr
GCG	Arg
CGA	Ala

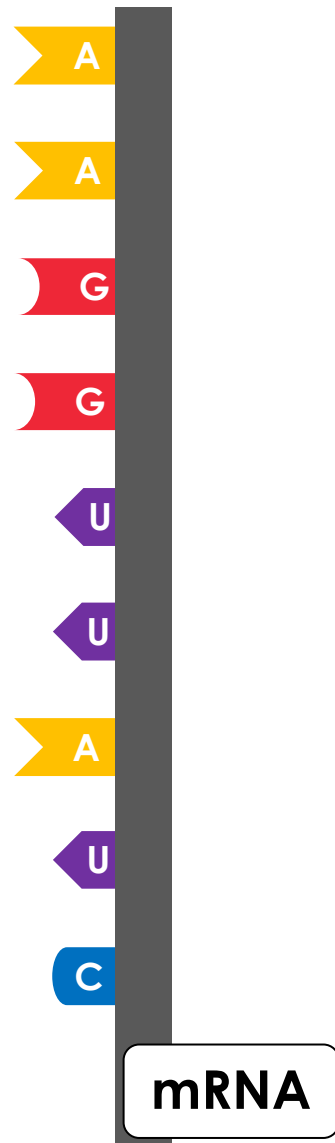
2 Wat sal gebeur indien een mRNA-kodon verander word?



Proteïenstruktuur en
-funksie kan verander.

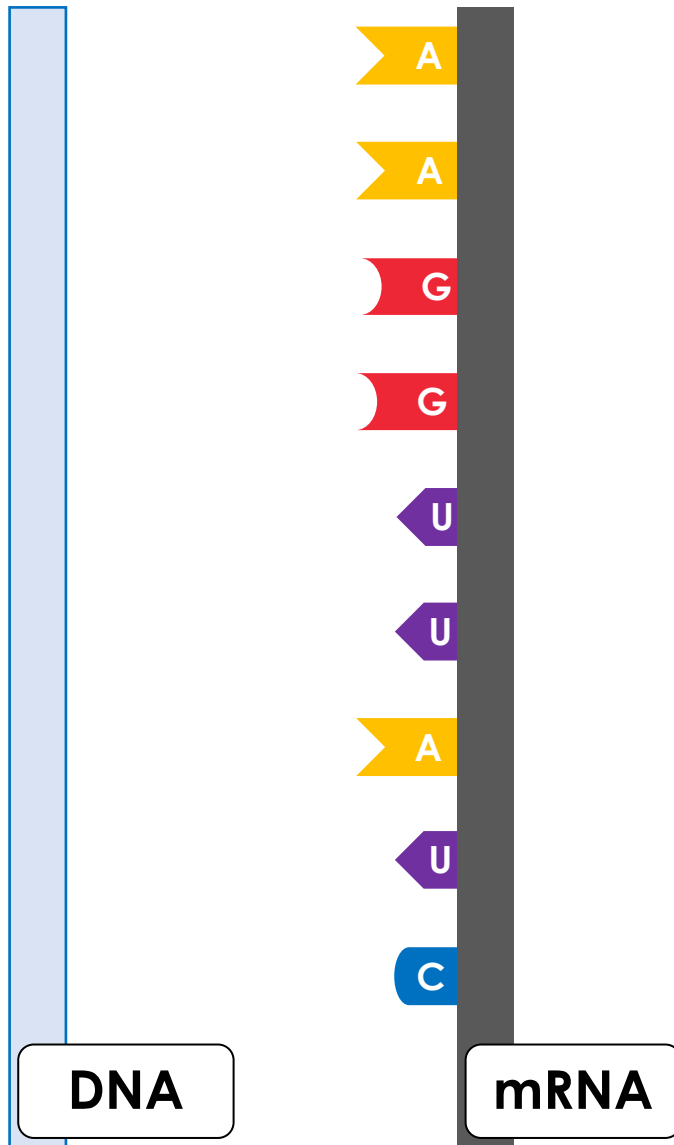
tRNA-antikodon	amino-suur
UGC	Ser
UUA	Asn
UGA	Thr
GCG	Arg
CGA	Ala

3 Transleer die mRNA-string in 'n aminosuurvolgorde.



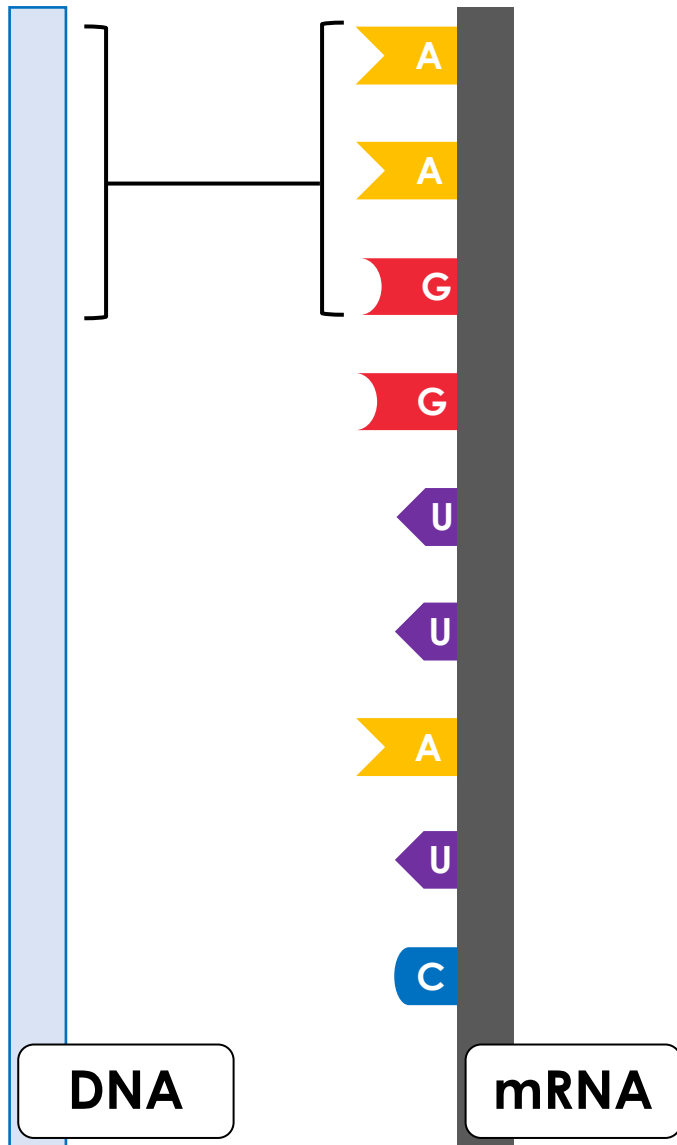
DNA-basistriplet	aminozuur
AGC	Ser
TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

3 Transleer die mRNA-string in 'n aminosuurvolgorde.



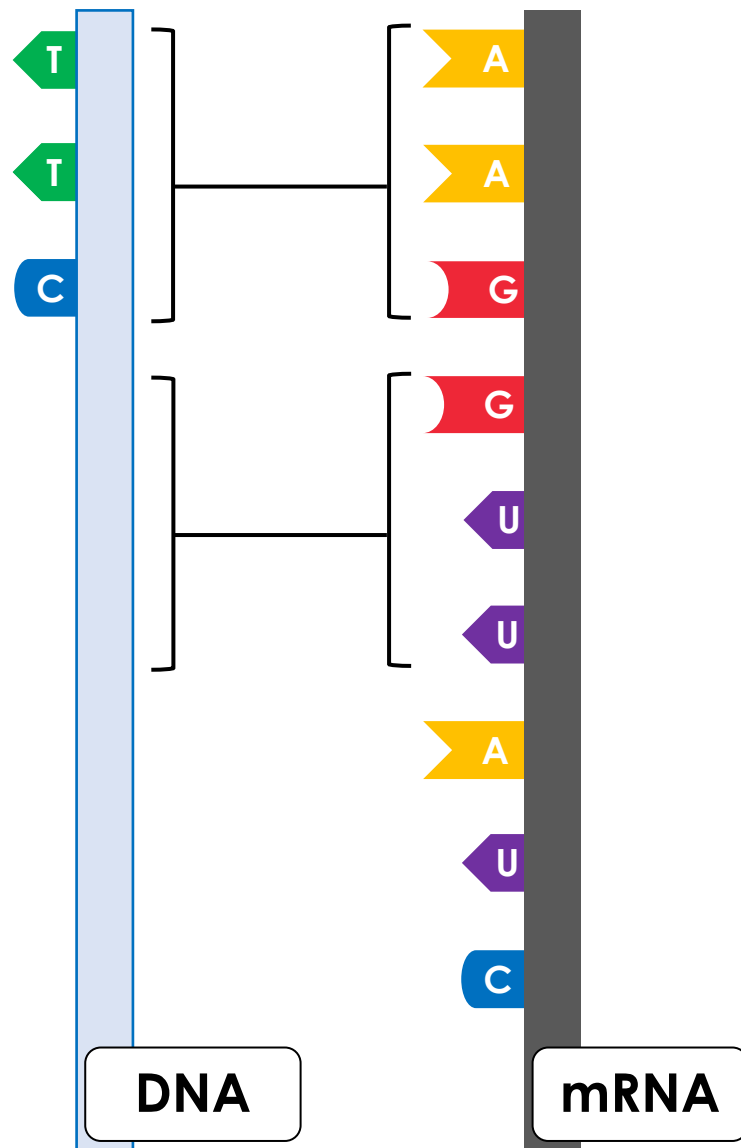
DNA-basistriplet	aminozuur
AGC	Ser
TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

3 Transleer die mRNA-string in 'n aminosuurvolgorde.



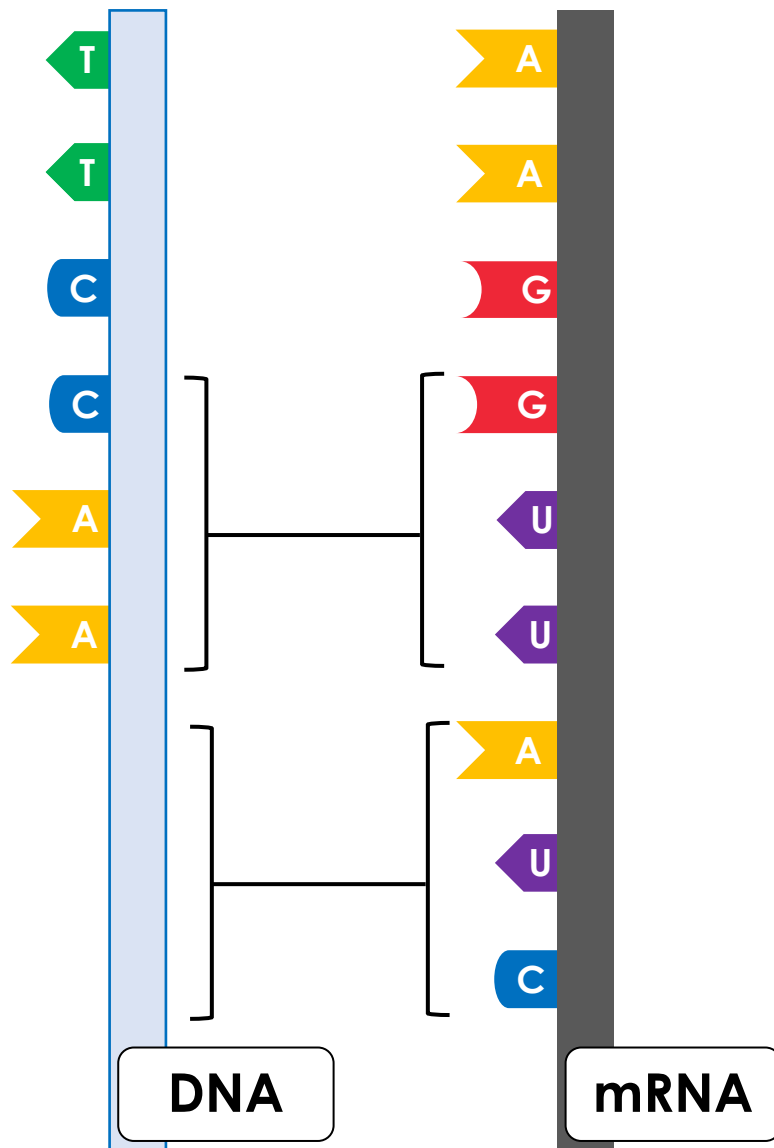
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TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

3 Transleer die mRNA-string in 'n aminosuurvolgorde.



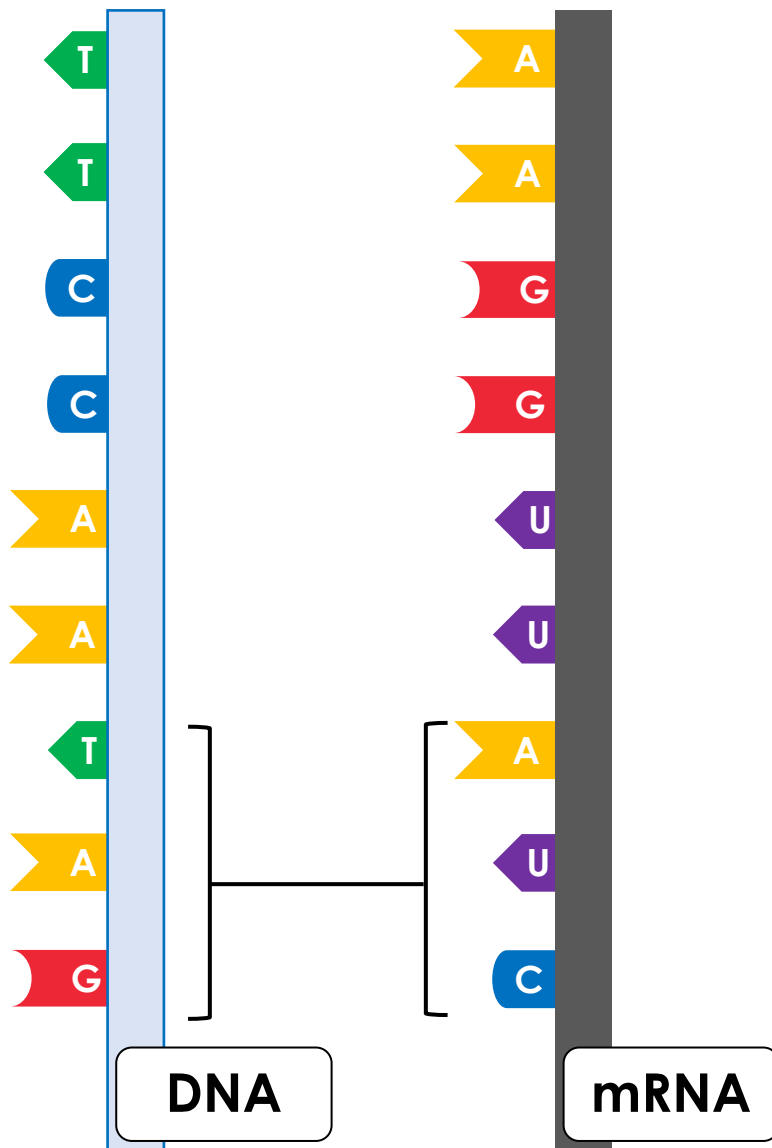
DNA-basistriplet	aminozuur
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TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

3 Transleer die mRNA-string in 'n aminosuurvolgorde.



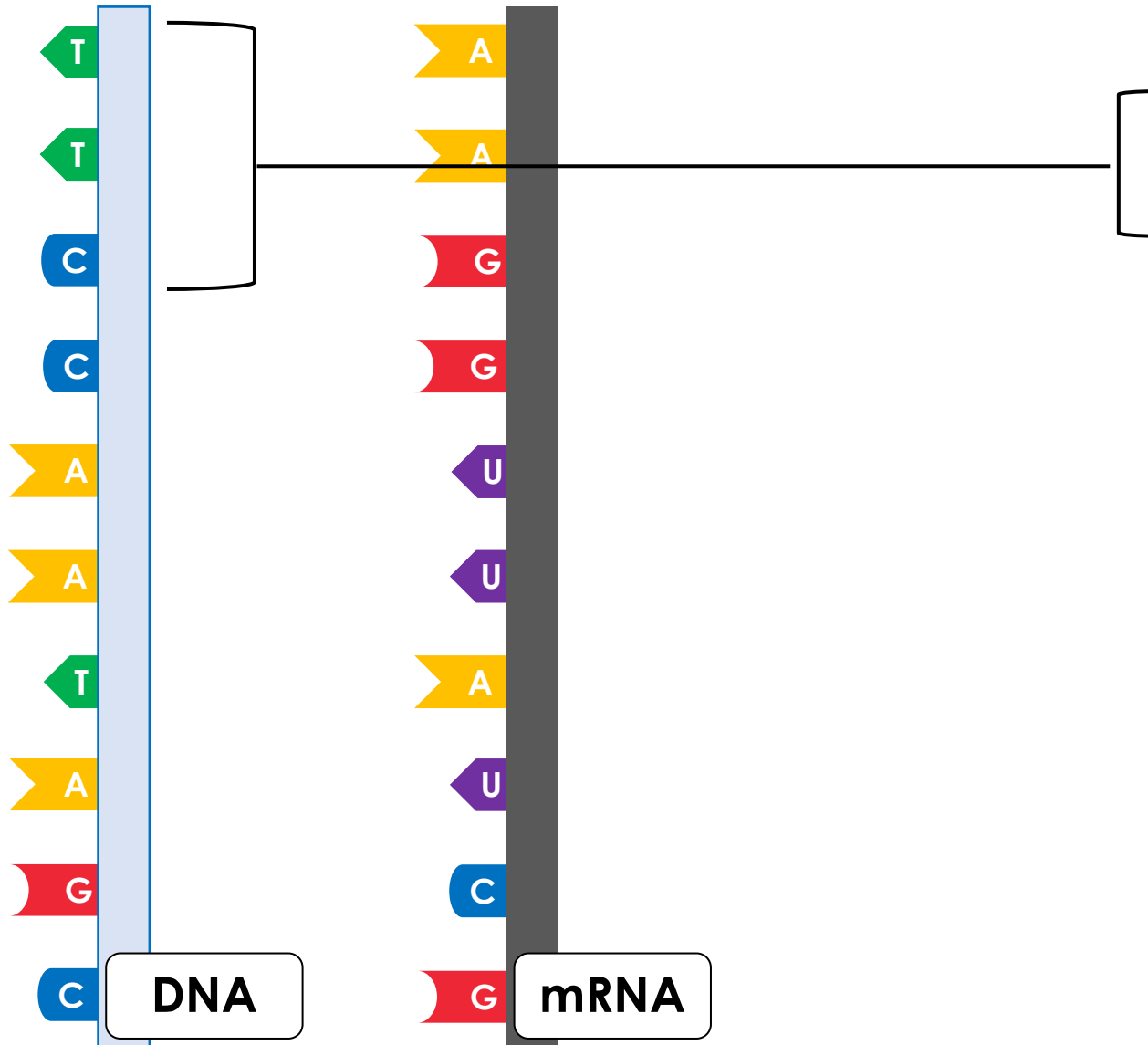
DNA-basistriplet	aminozuur
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TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

3 Transleer die mRNA-string in 'n aminosuurvolgorde.



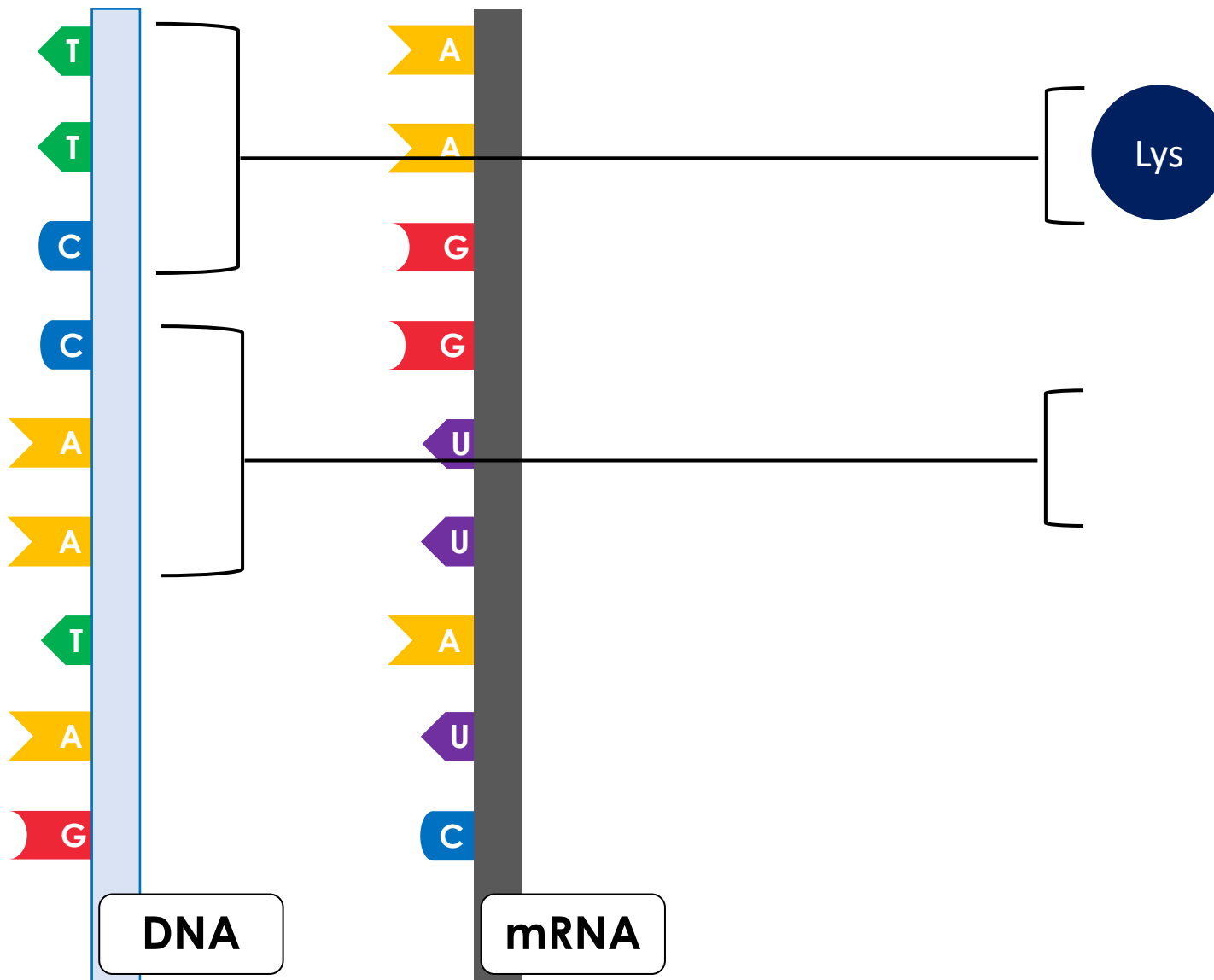
DNA-basistriplet	aminozuur
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TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

3 Transleer die mRNA-string in 'n aminosuurvolgorde.



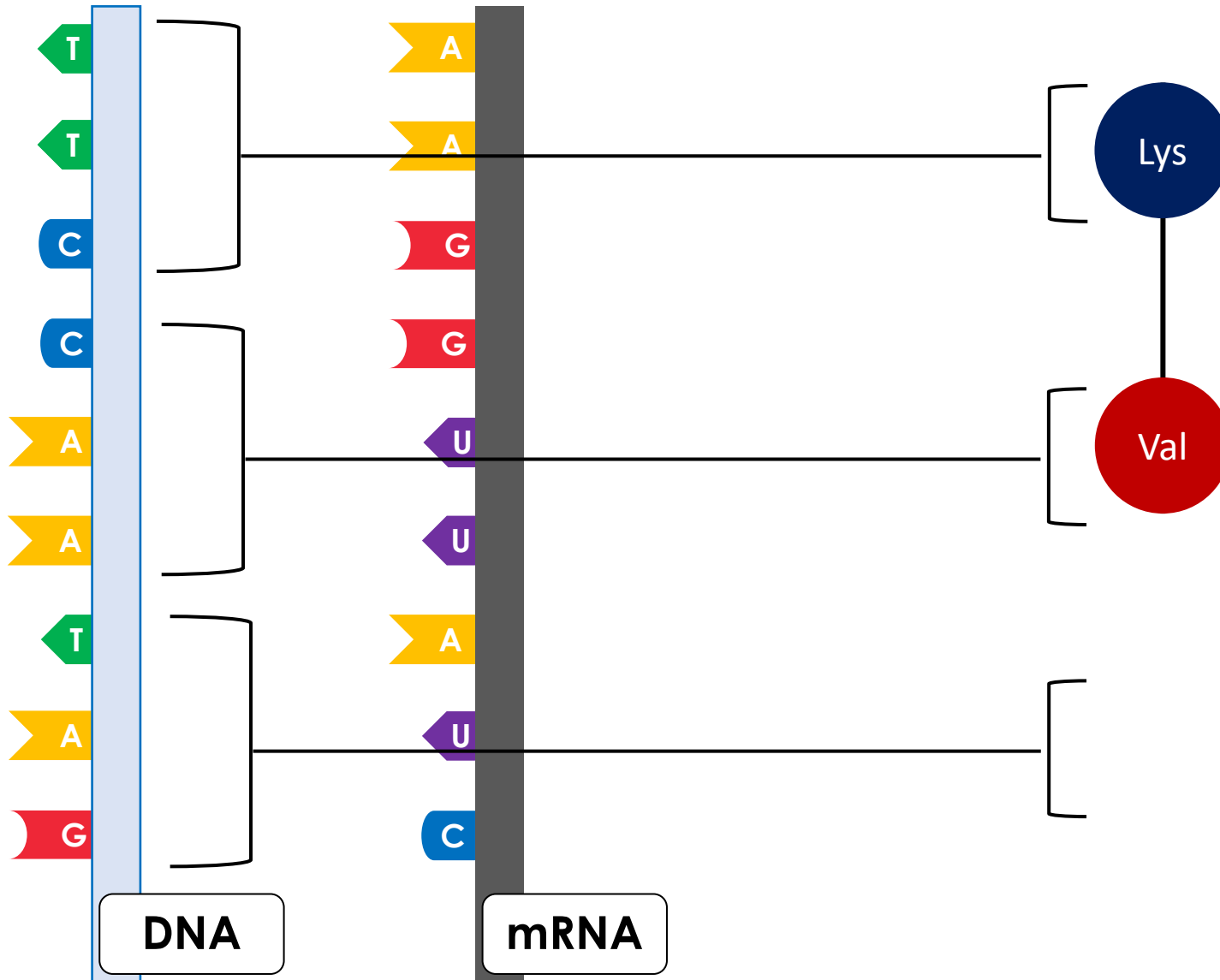
DNA-basistriplet	aminozuur
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TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

3 Transleer die mRNA-string in 'n aminosuurvolgorde.



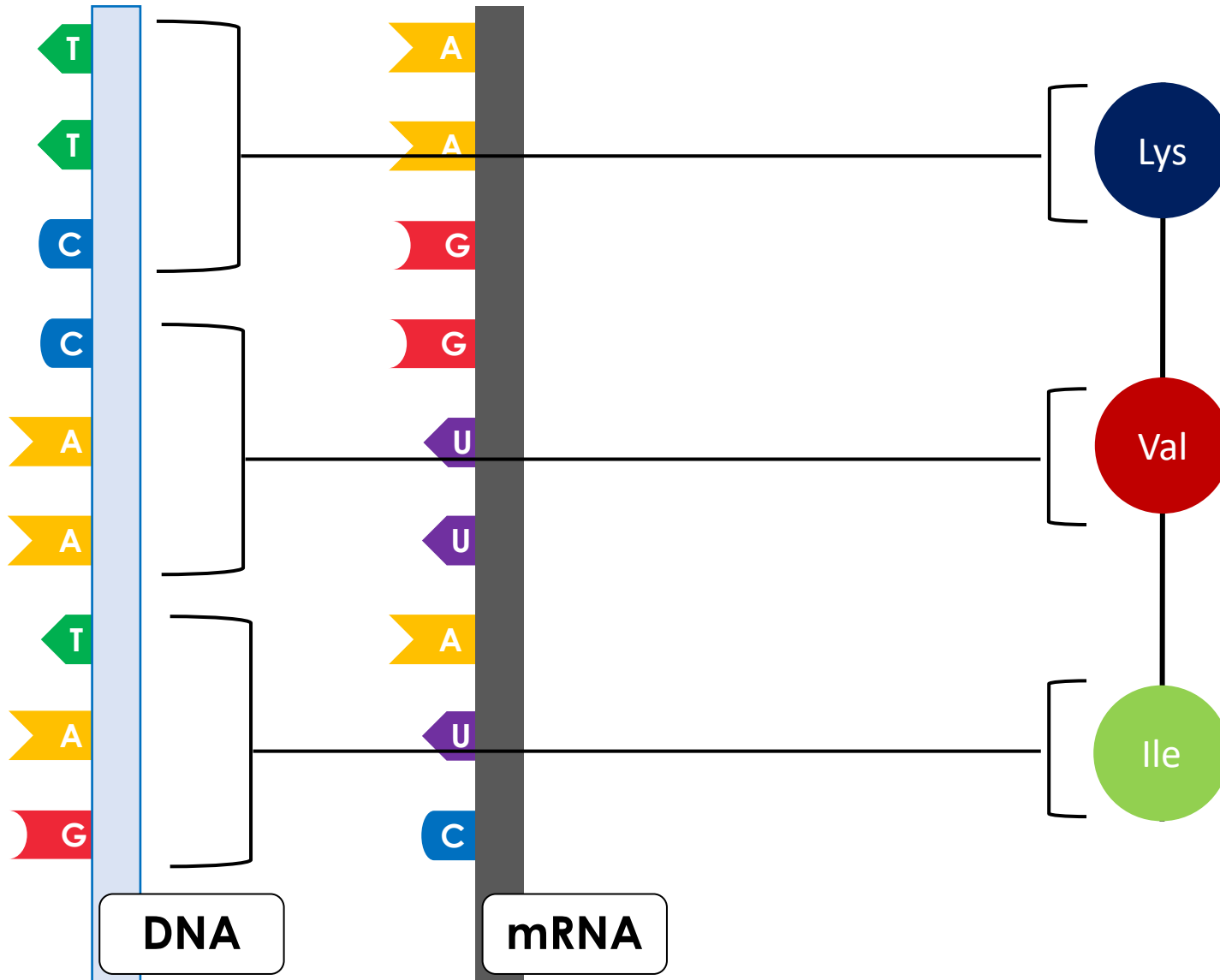
DNA-basistriplet	aminozuur
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TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

3 Transleer die mRNA-string in 'n aminosuurvolgorde.



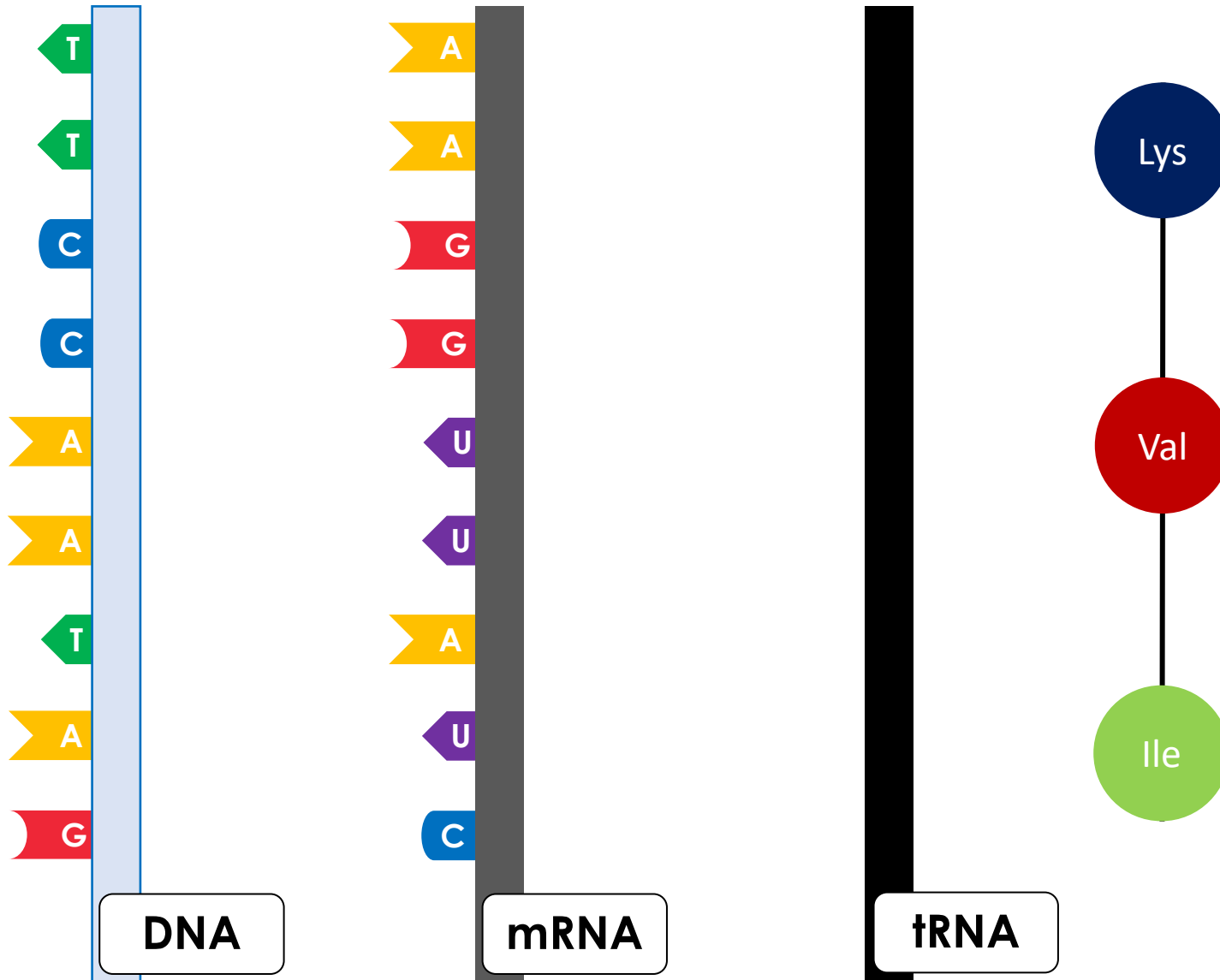
DNA-basistriplet	aminozuur
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TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

3 Transleer die mRNA-string in 'n aminosuurvolgorde.



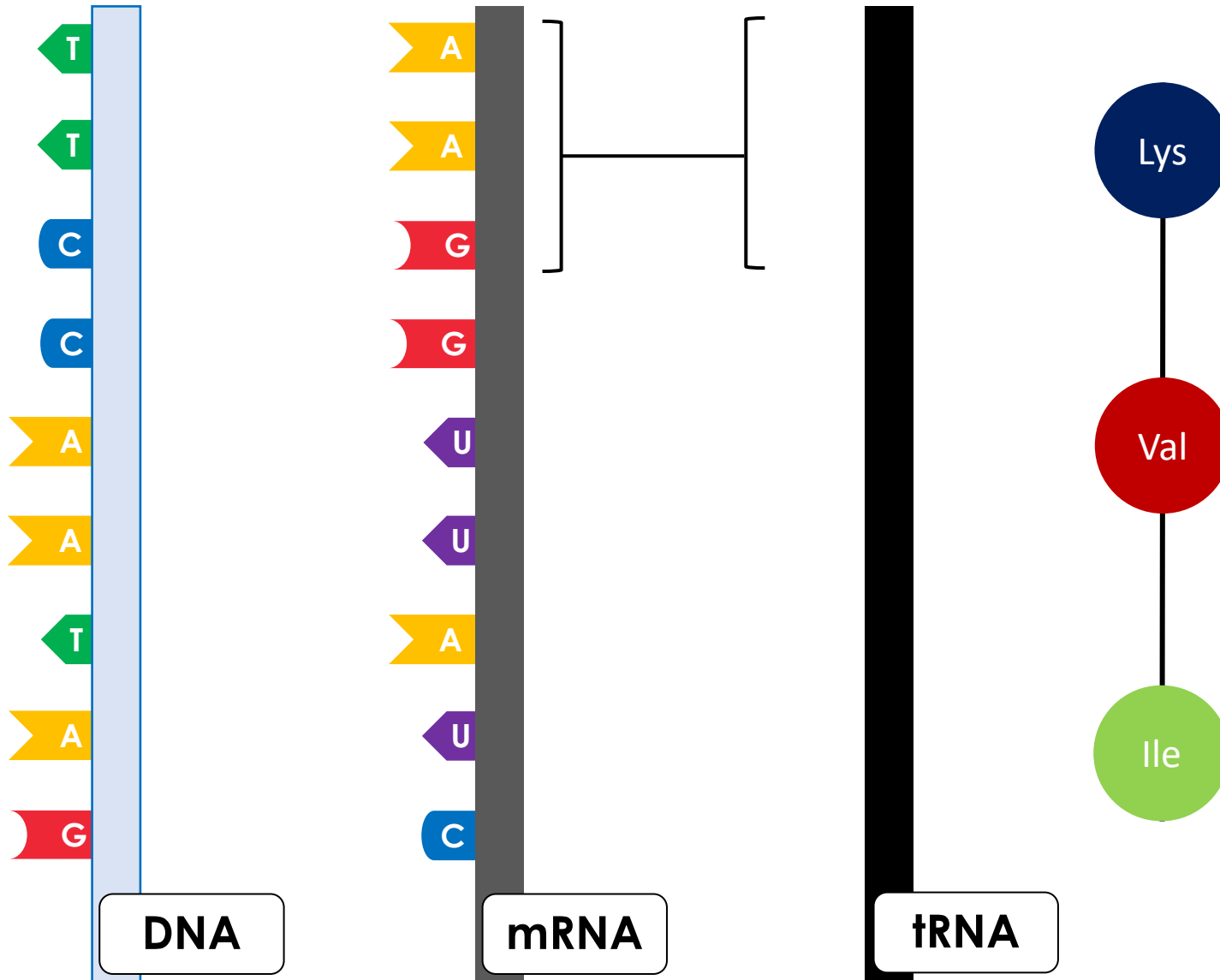
DNA-basistriplet	aminozuur
AGC	Ser
TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

- 4 Bepaal die tRNA-antikodons wat tydens translase gebruik word.



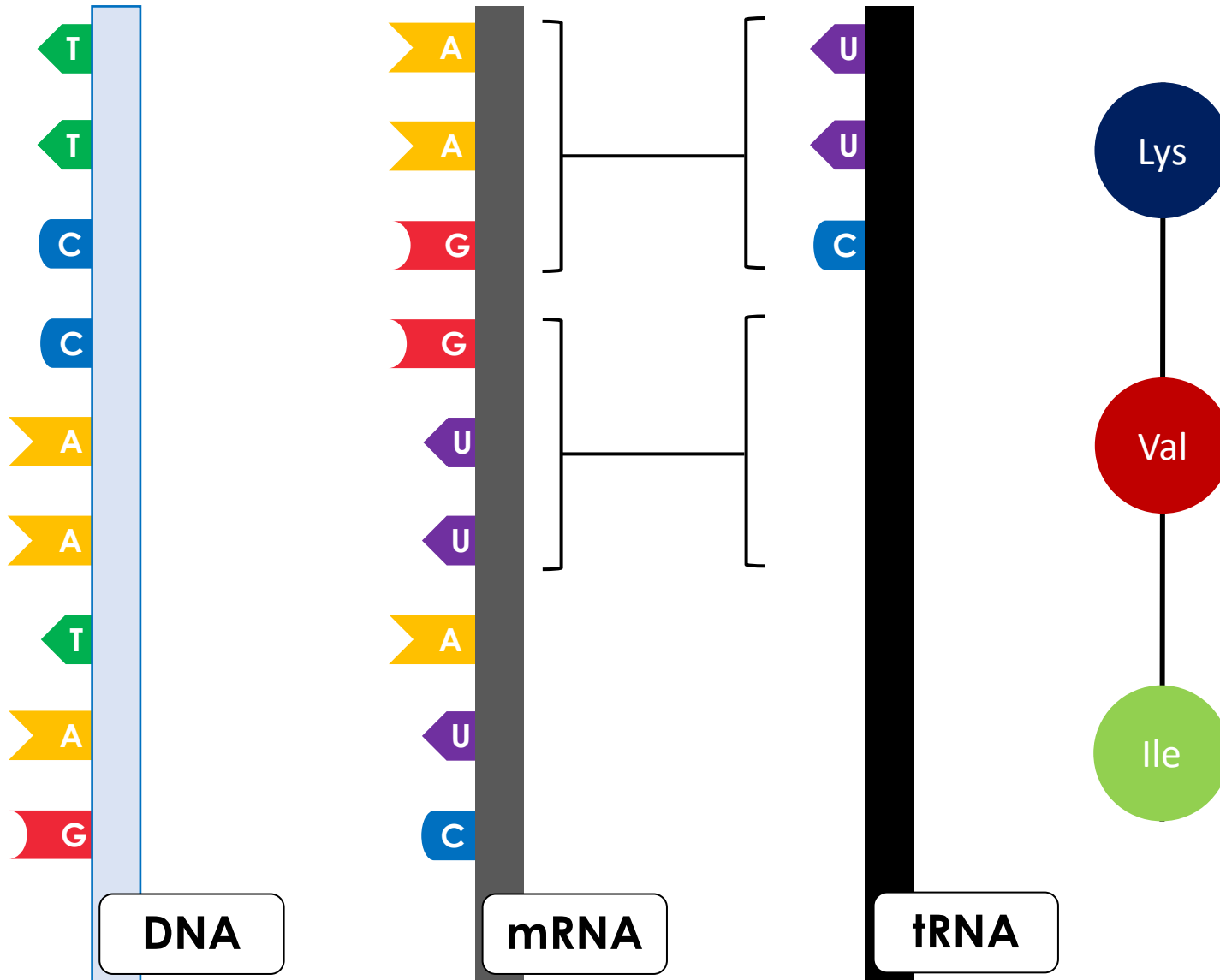
DNA-basistriplet	aminozuur
AGC	Ser
TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

- 4 Bepaal die tRNA-antikodons wat tydens translase gebruik word.



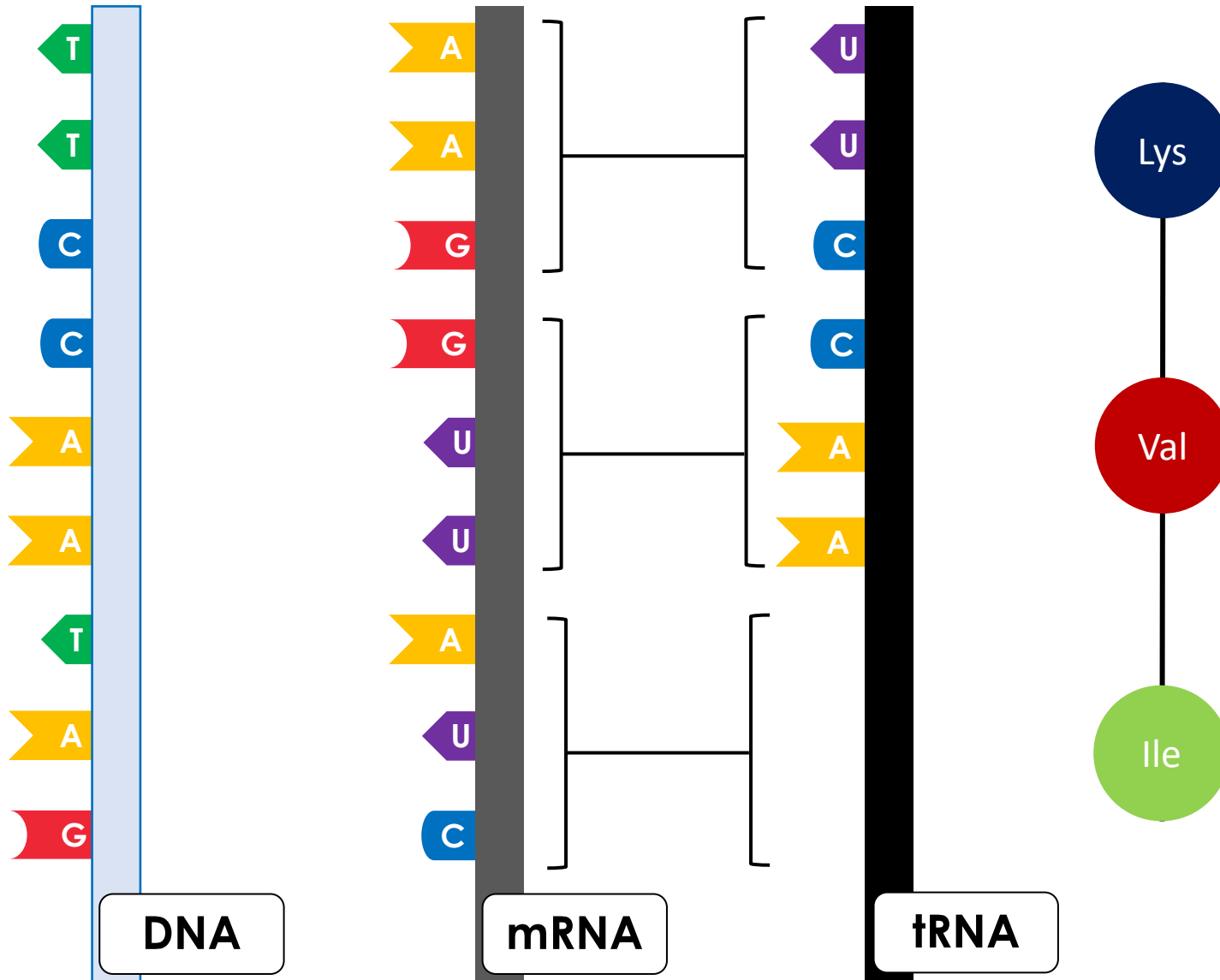
DNA-basistriplet	aminozuur
AGC	Ser
TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

- 4 Bepaal die tRNA-antikodons wat tydens translase gebruik word.



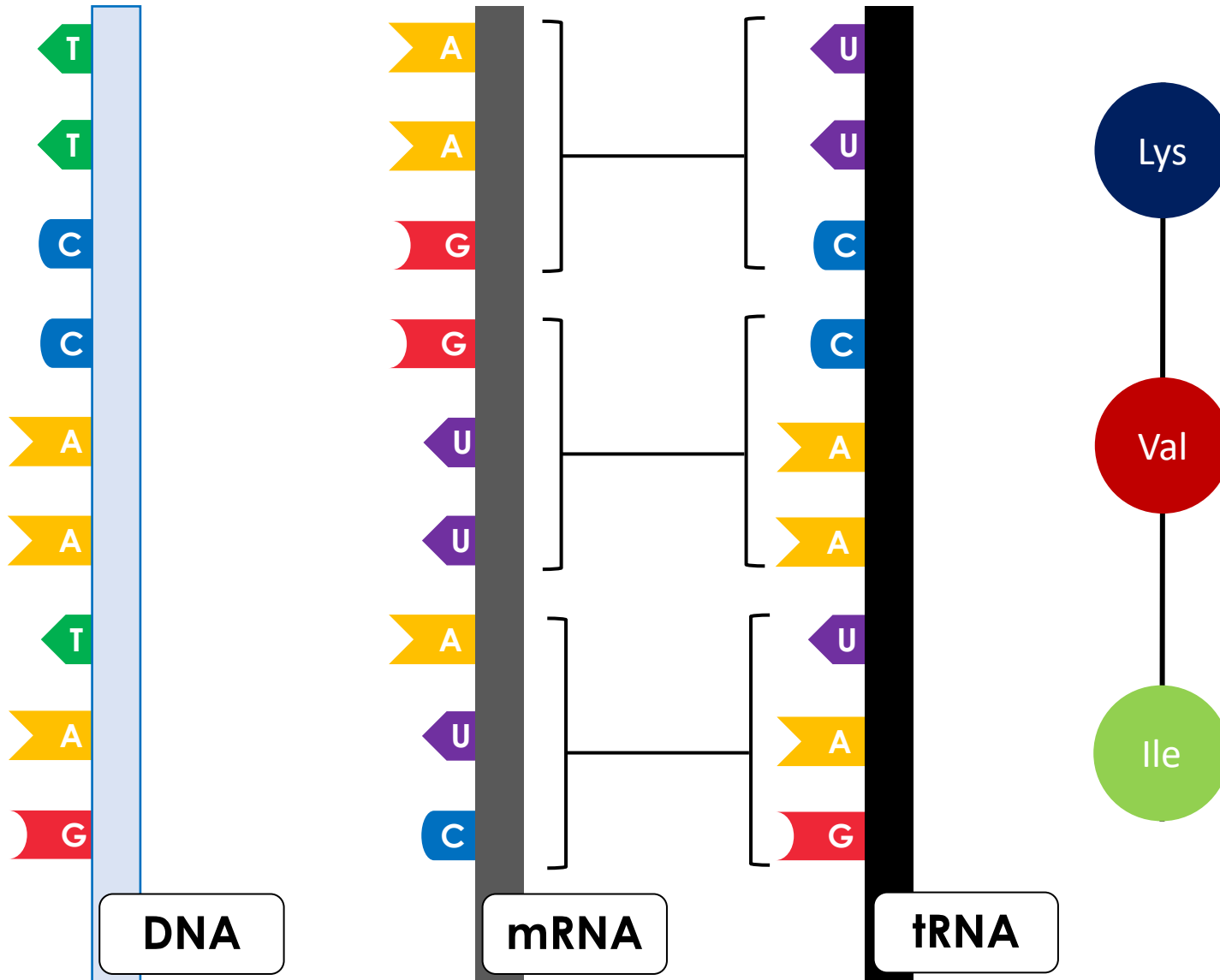
DNA-basistriplet	aminozuur
AGC	Ser
TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

- 4 Bepaal die tRNA-antikodons wat tydens translase gebruik word.



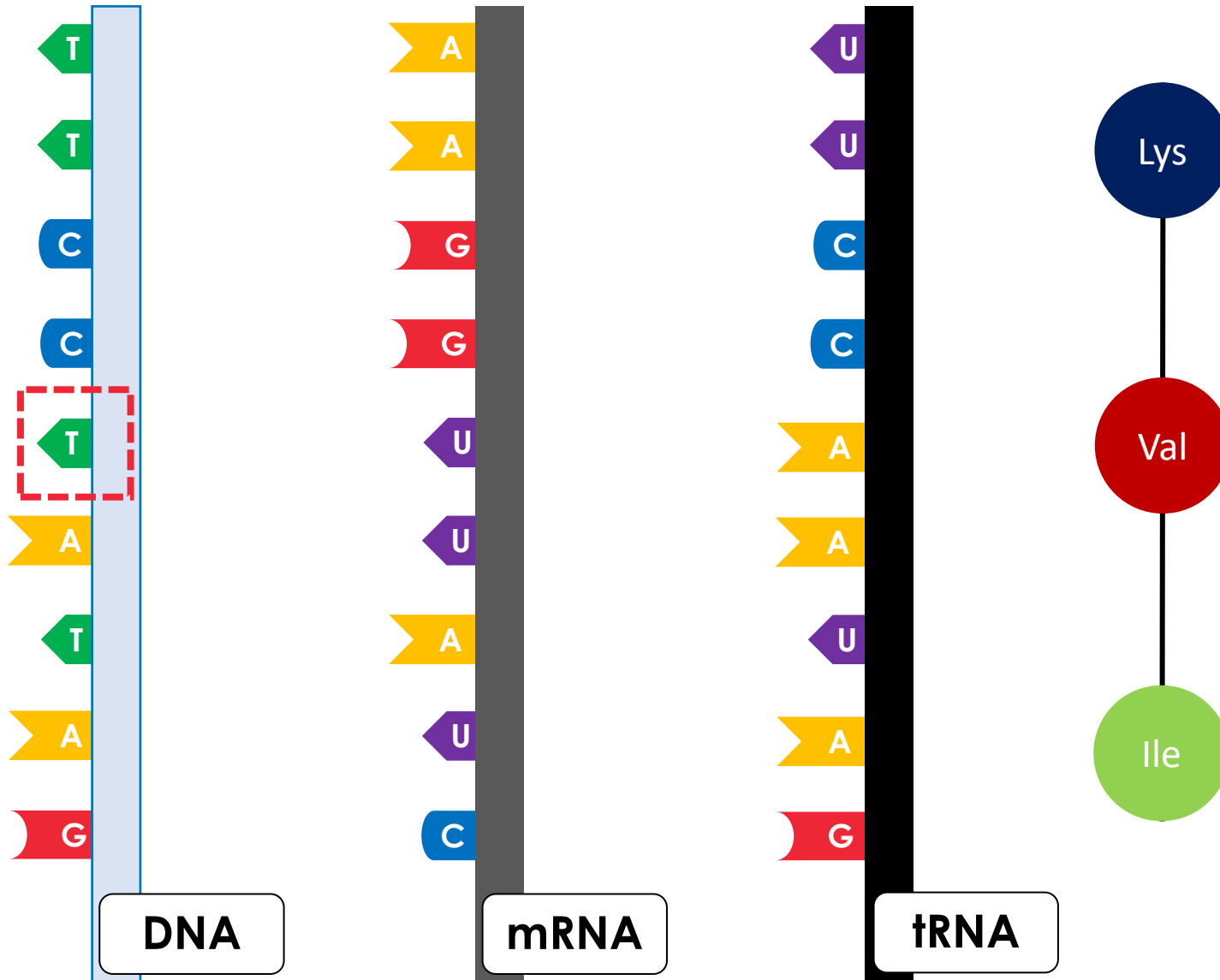
DNA-basistriplet	aminozuur
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TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

- 4 Bepaal die tRNA-antikodons wat tydens translase gebruik word.



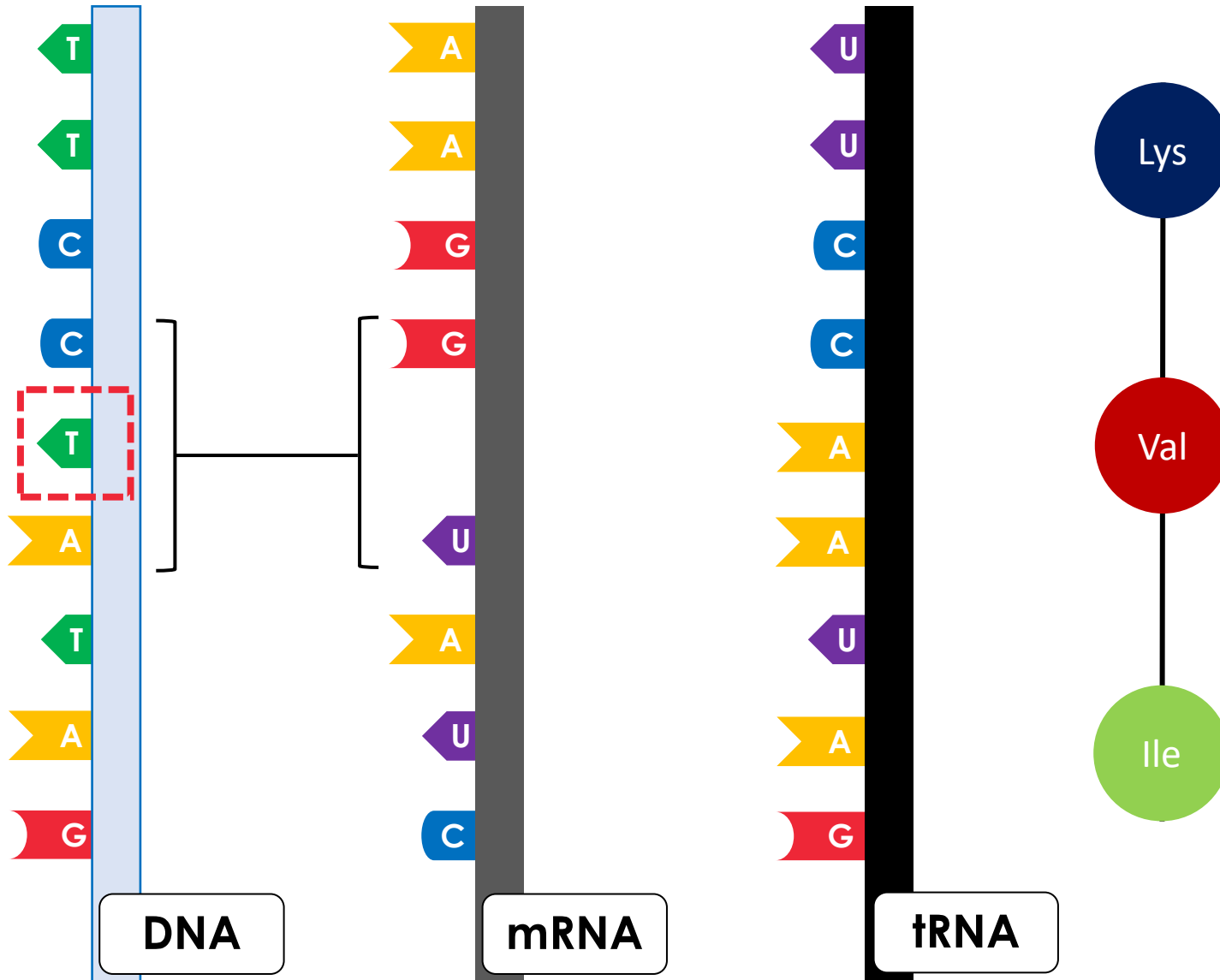
DNA-basistriplet	aminozuur
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TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

5 'n Geenmutasie vind plaas. Verduidelik wat gebeur.



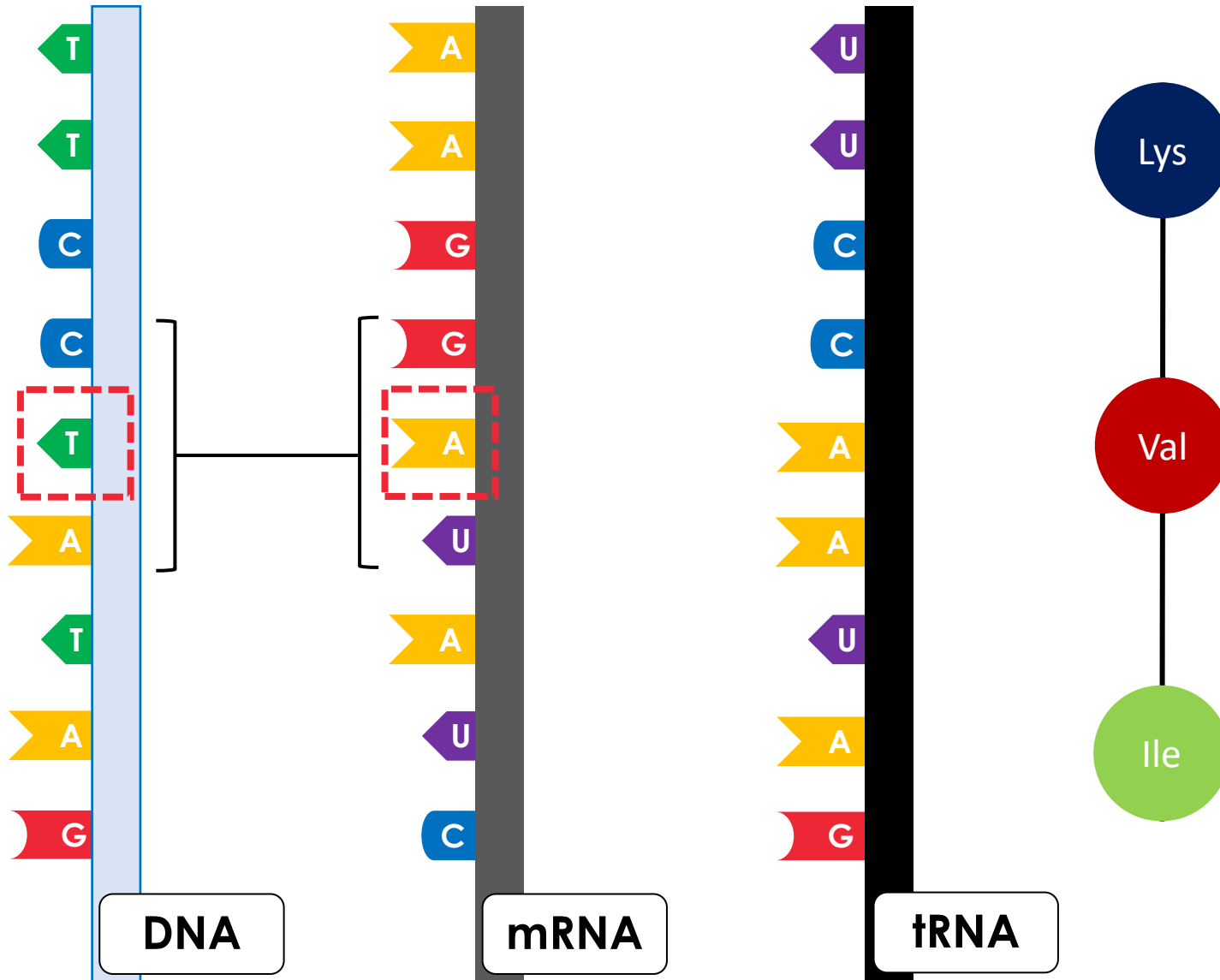
DNA-basistriplet	aminozuur
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TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

5 'n Geenmutasie vind plaas. Verduidelik wat gebeur.



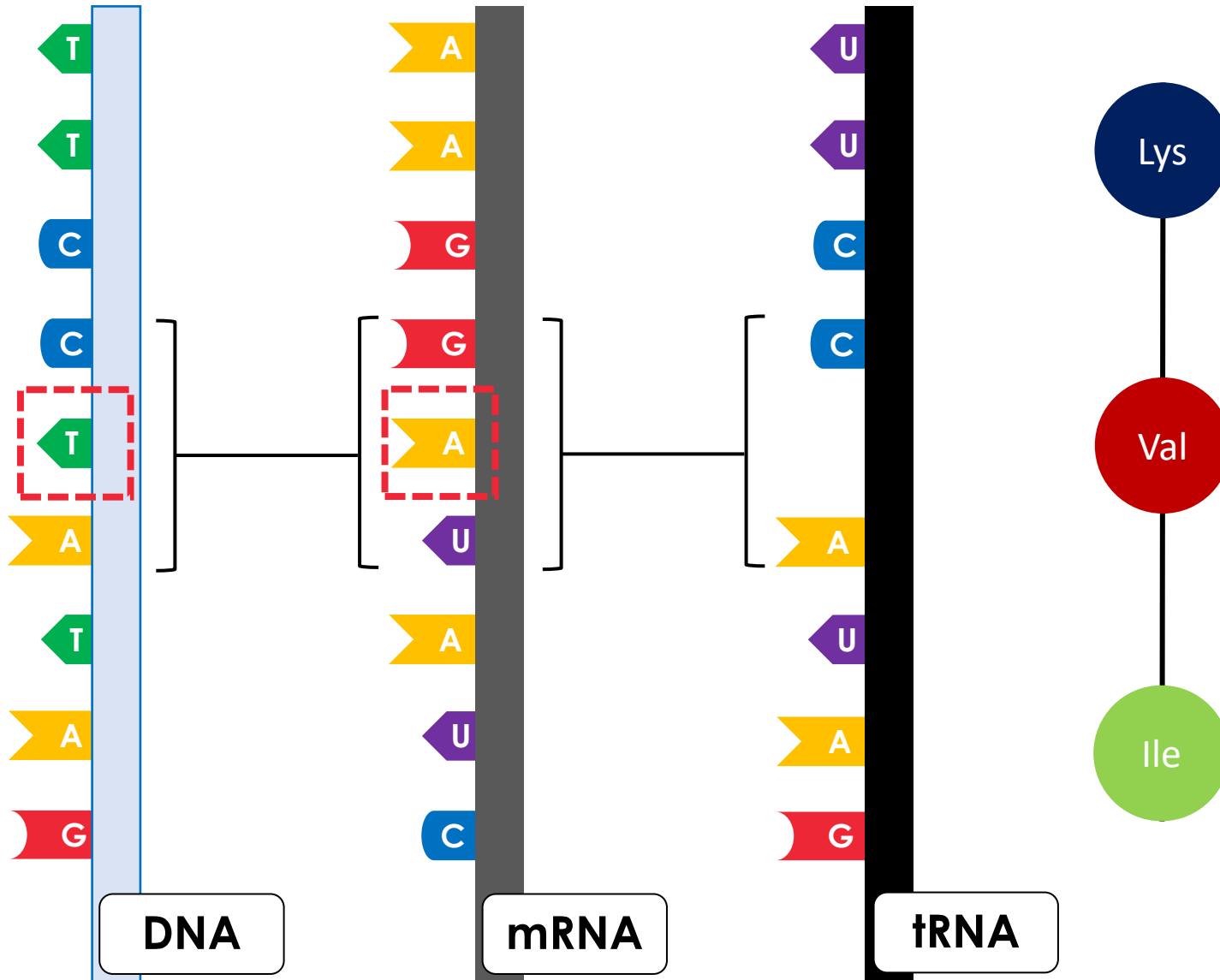
DNA-basistriplet	aminozuur
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TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

5 'n Geenmutasie vind plaas. Verduidelik wat gebeur.



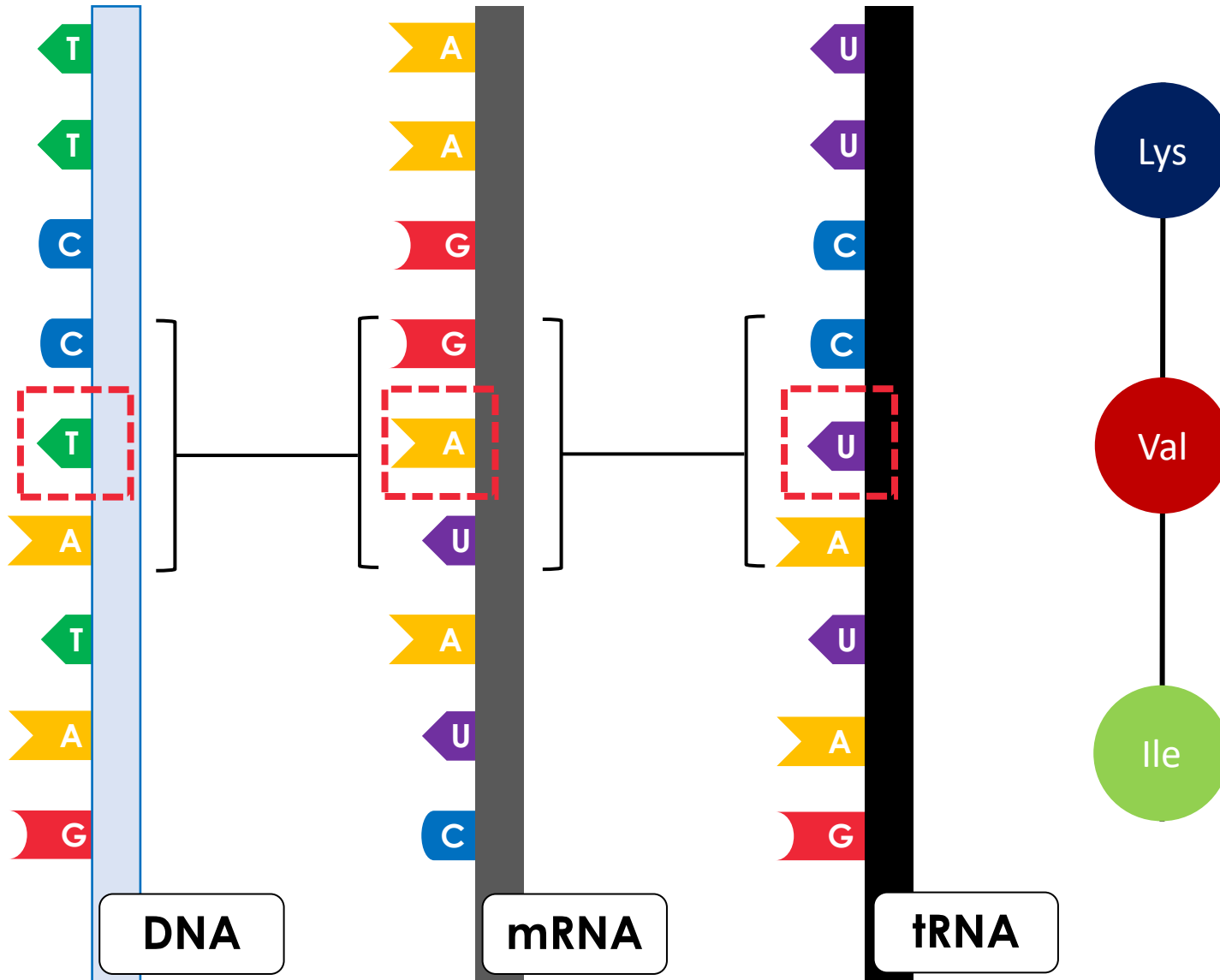
DNA-basistriplet	aminozuur
AGC	Ser
TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

5 'n Geenmutasie vind plaas. Verduidelik wat gebeur.



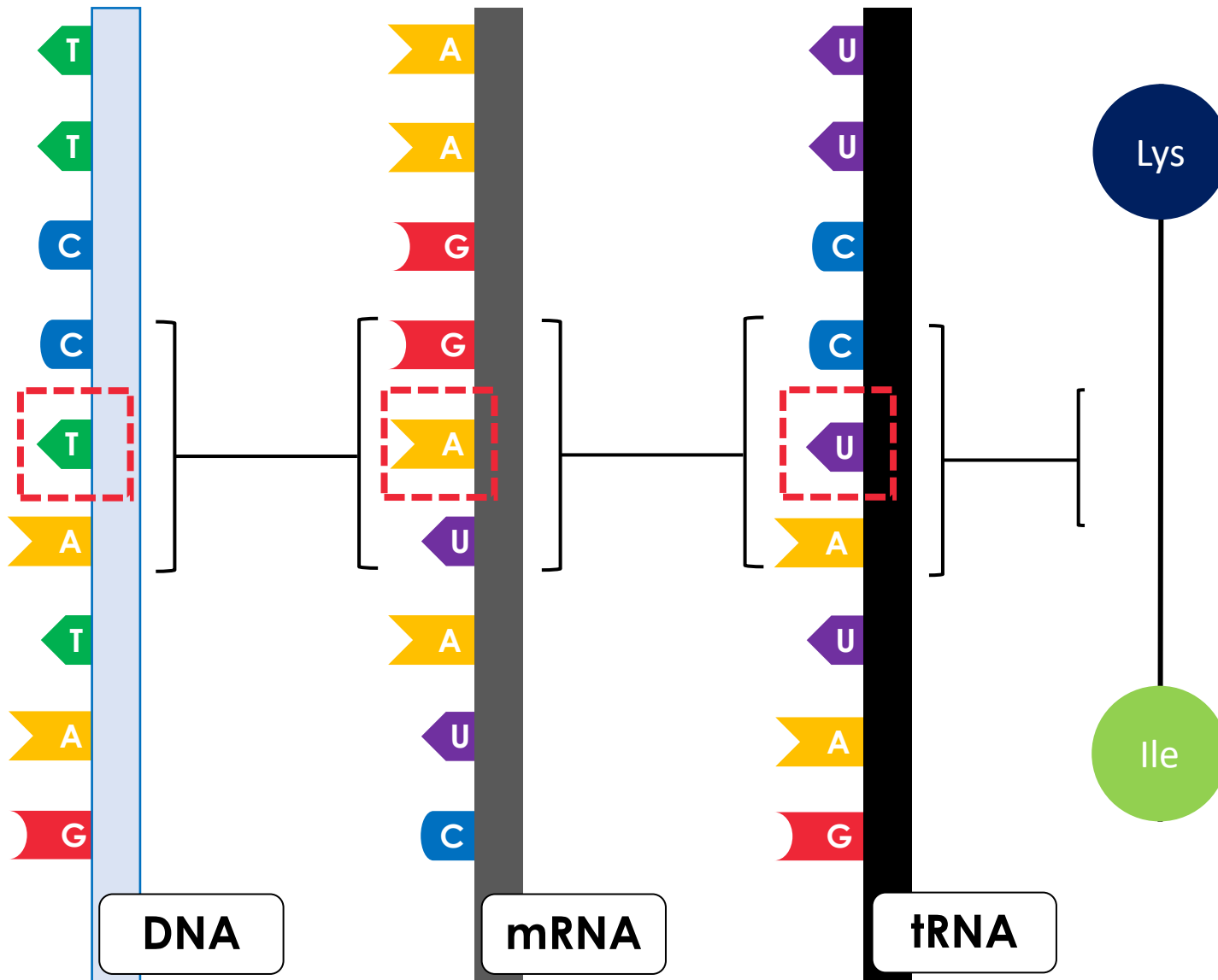
DNA-basistriplet	aminozuur
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TAG	Ile
CAA	Val
TTC	Lys
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CTA	Asp

5 'n Geenmutasie vind plaas. Verduidelik wat gebeur.



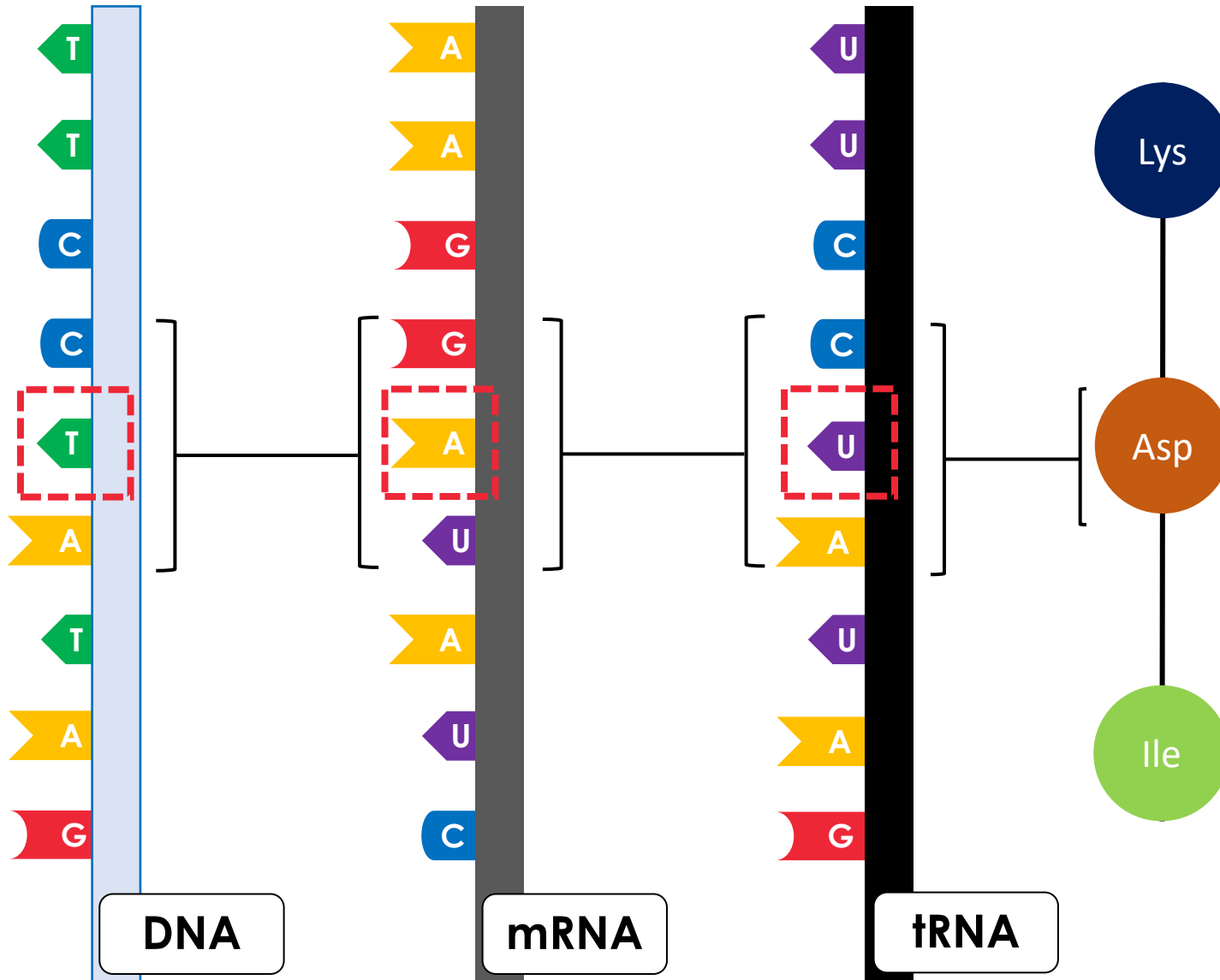
DNA-basistriplet	aminozuur
AGC	Ser
TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

5 'n Geenmutasie vind plaas. Verduidelik wat gebeur.



DNA-basistriplet	aminozuur
AGC	Ser
TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

5 'n Geenmutasie vind plaas. Verduidelik wat gebeur.



Proteïenstruktuur en -funksie kan verander.

DNA-basistriplet	aminozuur
AGC	Ser
TAG	Ile
CAA	Val
TTC	Lys
AAT	Leu
CTA	Asp

EINDE