

## 7.2 Transcription and Gene Expression

### Transcription

*Distinguish between the sense and antisense strands*

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*Identify the three sections of a gene*

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*Explain the process of transcription, including the role of RNA polymerase*

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*List three examples of post-transcriptional modifications*

1. ....
2. ....
3. ....

*Distinguish between introns and exons*

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*Outline how alternative splicing increases the number of different proteins an organism can produce*

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## Gene Expression

*Outline the role of the promoter and transcription factors in the regulation of transcription*

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*Discuss, with an example, the role the environment can play in regulating transcription*

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*Describe the role regulatory proteins play in moderating gene expression levels*

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*Outline the role of the nucleosome in the regulation of gene expression*

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*Describe how DNA methylation patterns may differ between identical twins and the significance of this*

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