

Low-Cost Experiments in STEM Education



Ingeborg van der Neut | Ludgercollege | Doetinchem | The Netherlands

The Protein Factory

A cardgame on transcription and translation

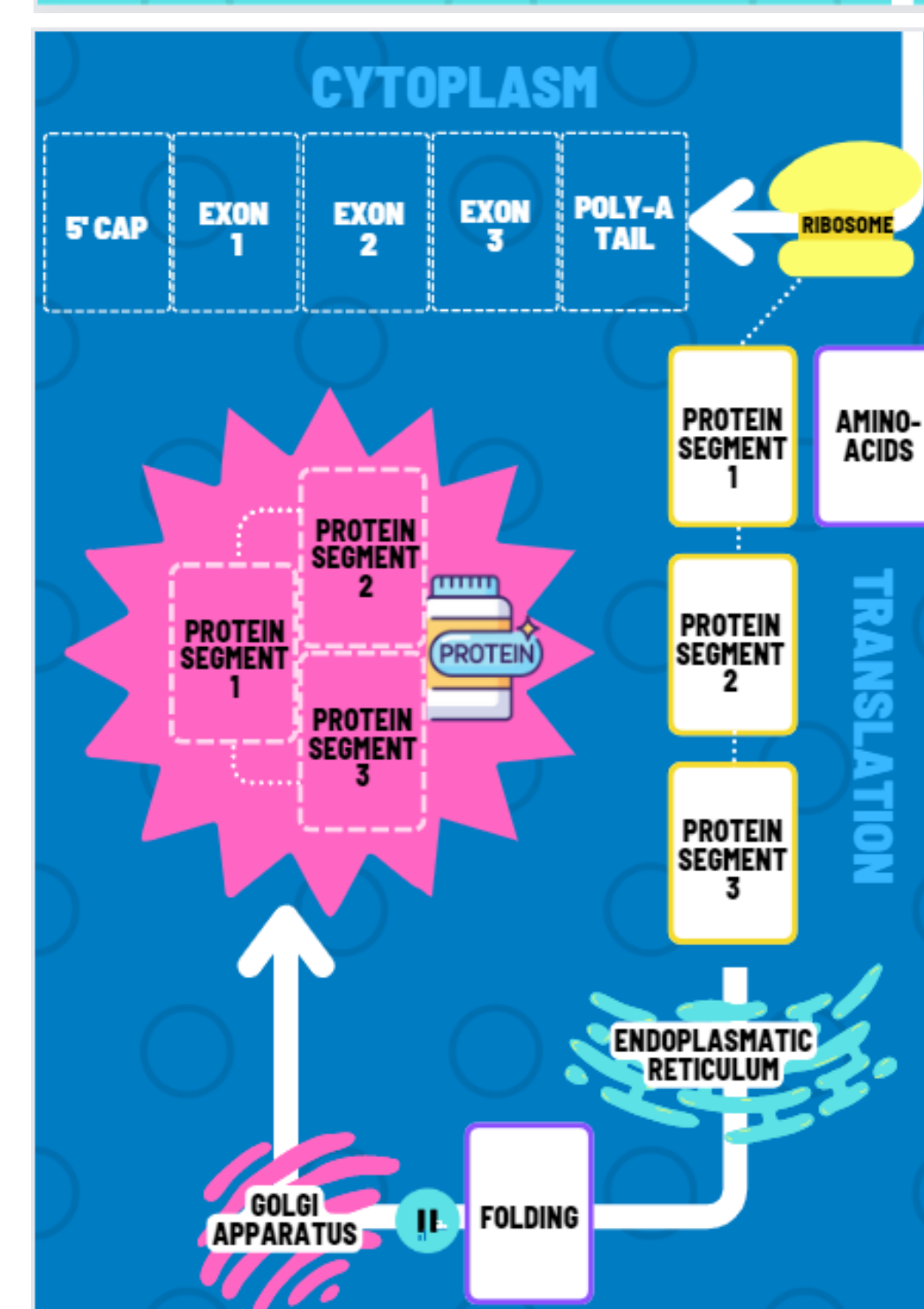
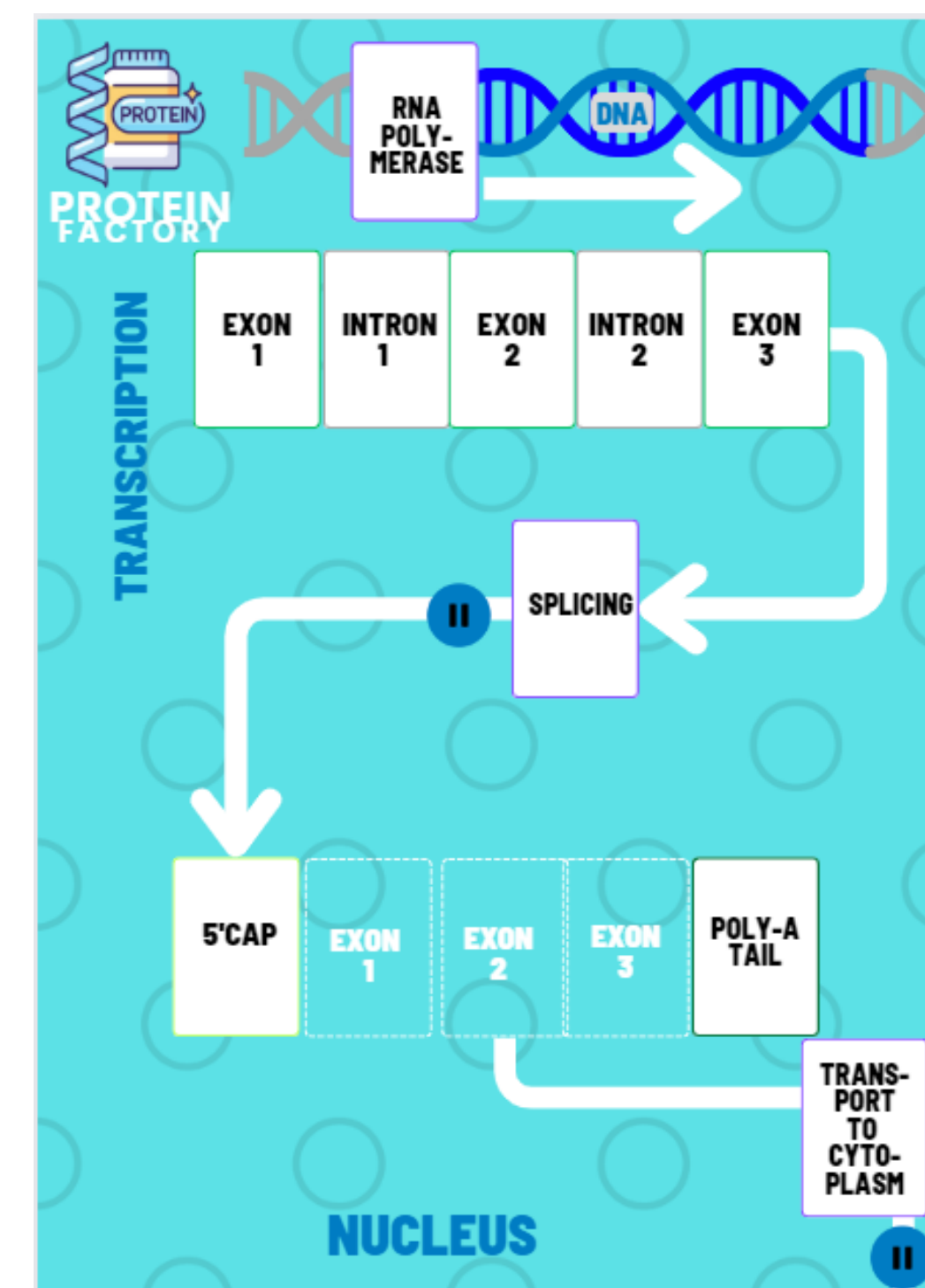
Students usually have a problem with all the different processes involved in the synthesis of proteins. What is the difference between transcription and translation? When do we use DNA and when RNA? What takes place where?

By playing this game, students get an overview of all the processes from DNA to protein.

Some other mechanism also come to the table such as:

- -You need different enzymes for different processes.
- Enzymes can be denatured when the temperature rises.
- The cell becomes slow when the temperature is low.
- Availability of amino acids is necessary to make proteins.

They play in teams which forces them to discuss these processes and helps with staying motivated.



All the materials are available in a printable English version.
Easy to translate to other languages with a little help from AI.