



Final task – IN-22

Supporting Effective Learning

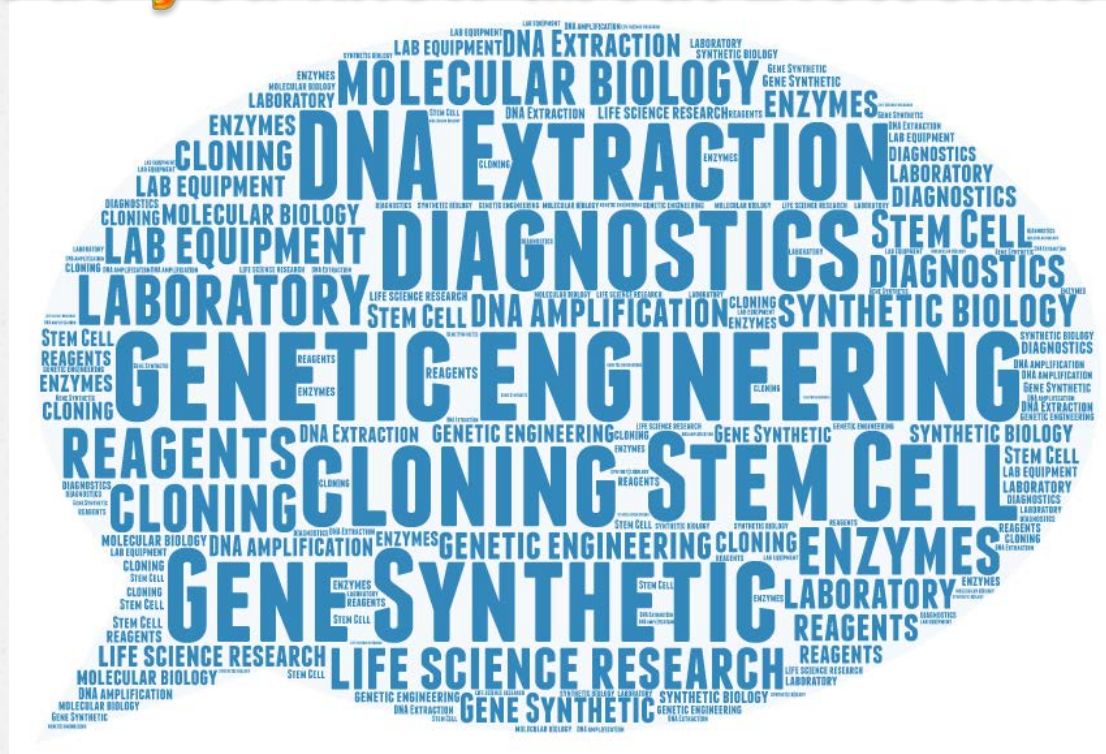
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EXPLORING PREVIOUS KNOWLEDGE

What do you know about Biotechnology?



PREDICTING THE TOPIC OF THE TEXT

- We give the students the following text about biotechnology and they have to point out the words that they recognize in this word-cloud.
- They have to answer the following question.

WHAT IS THE TEXT GOING TO BE ABOUT?

TEXT

The World Leader in Serving Science

Thermo Fisher Scientific Inc. is the world leader in serving science, with revenues of \$18 billion and more than 55,000 employees globally. Our mission is to enable our customers to make the world healthier, cleaner and safer. We help our customers accelerate life sciences research, solve complex analytical challenges, improve patient diagnostics and increase laboratory productivity. Through our premier brands – Thermo Scientific, Applied Biosystems, Invitrogen, Fisher Scientific and Unity Lab Services – we offer an unmatched combination of innovative technologies, purchasing convenience and comprehensive support.

We work in synthetic biology, which combines molecular biology and systems biology with engineering principles to design biological systems & bio-factories. The aim is to create improved biological functions to fight current & future challenges.

The main brands are:

Thermo Scientific

Innovative analytical instruments, lab equipment and specialty diagnostics that provide rapid and accurate results for customers in research, clinical and applied markets.

Products

- Air Quality
- Water Analysis
- Clinical and Diagnostics

Invitrogen

Invitrogen™ instruments and reagents are some of the most-cited products for genetic engineering, DNA amplification, purification, quantification and analysis. From TOPO™ Cloning Kits and high-quality SuperScript™ and Platinum™ enzymes, to Dynabeads™ separation technologies and GeneArt™ Gene Synthesis, Invitrogen™ cell and molecular biology technologies are designed to help ensure that the time you invest in your research is efficient and is rewarded with the reliable results you're counting on.

Key Applications

- Cloning
- Stem Cell Research
- DNA Extraction

- o They have to segment the text in three parts: S1, S2, S3 in order to understand the whole text.
- o First of all students read the first segment and then the teacher makes question related with the BLOOM's Taxonomy.

SEGMENT 1

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The main brands are:

RESPONSES APPLYING BLOOM TAXONOMY

- o Can you explain what is synthetic biology in your own words? – Understanding
- o Do you think is it a good idea to set up a biotechnology company ? Why?-
Evaluating

PREDICTION SEGMENT 2

What do you think the next text is about?

SEGMENT 2

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RESPONSES APPLYING BLOOM TAXONOMY

- o Choose your favourite product of this brand. Why? – Evaluating.
- o With that product, what would you use it for ? - Applying

PREDICTION SEGMENT 3

o What do you think the next product treats?

SEGMENT 3

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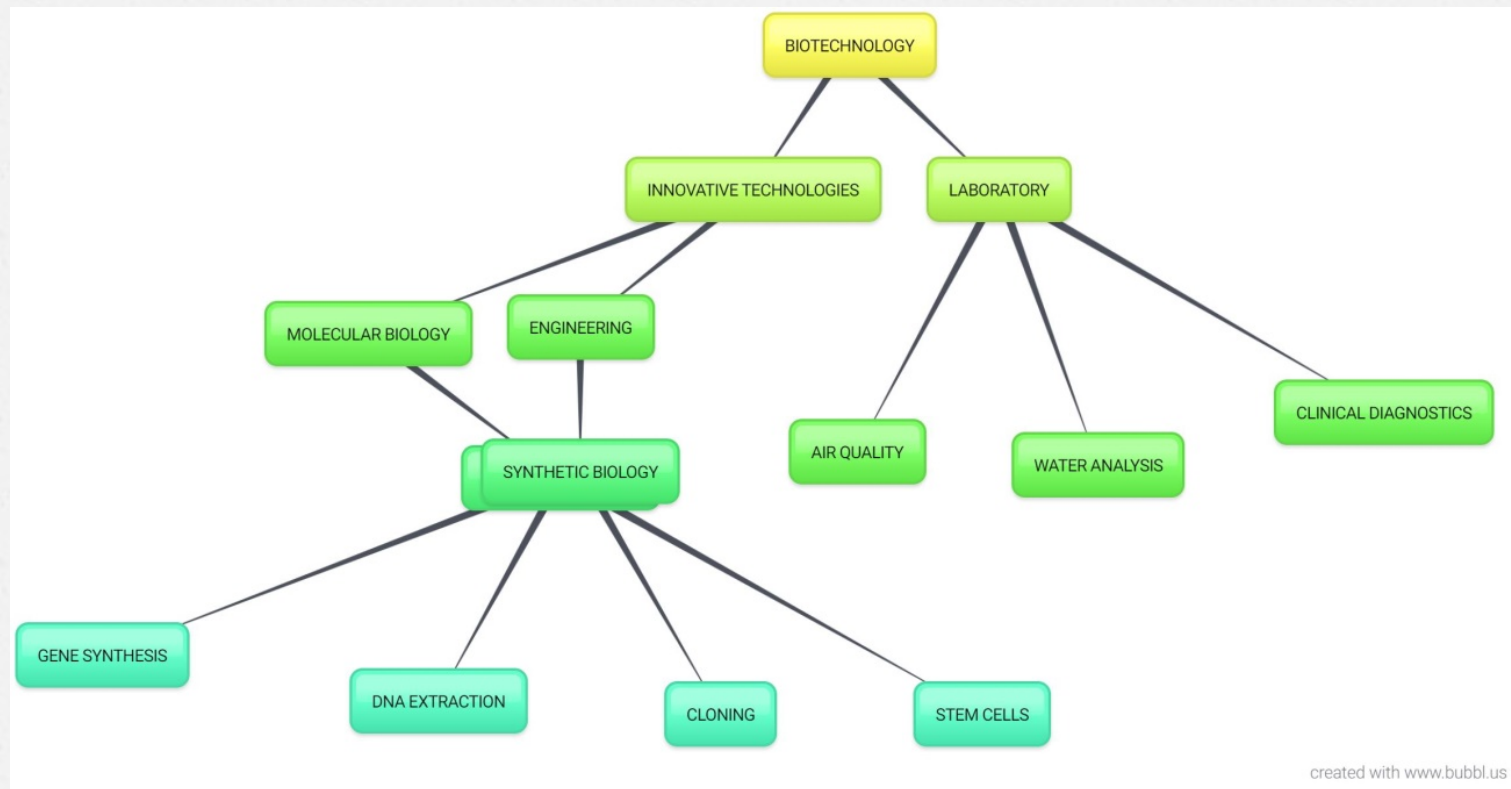
RESPONSES APPLYING BLOOM's TAXONOMY

- o Can you define DNA extraction? – Remembering.
- o Can you give reasons for and against for cloning - Applying

LINKS TO SUPPORT OUR TEACHING PROCESS

1. https://quizlet.com/_3kv4g2 understanding vocabulary (included test and games).
2. <https://bubbl.us/> students have to do a mindmap with key words (see the example in the next slide).
3. <http://www.discoveryeducation.com/free-puzzlemaker/> students have to design a puzzle with key words.
4. <https://padlet.com/> students have to do a collaborative work like a poster with photos related to key words.

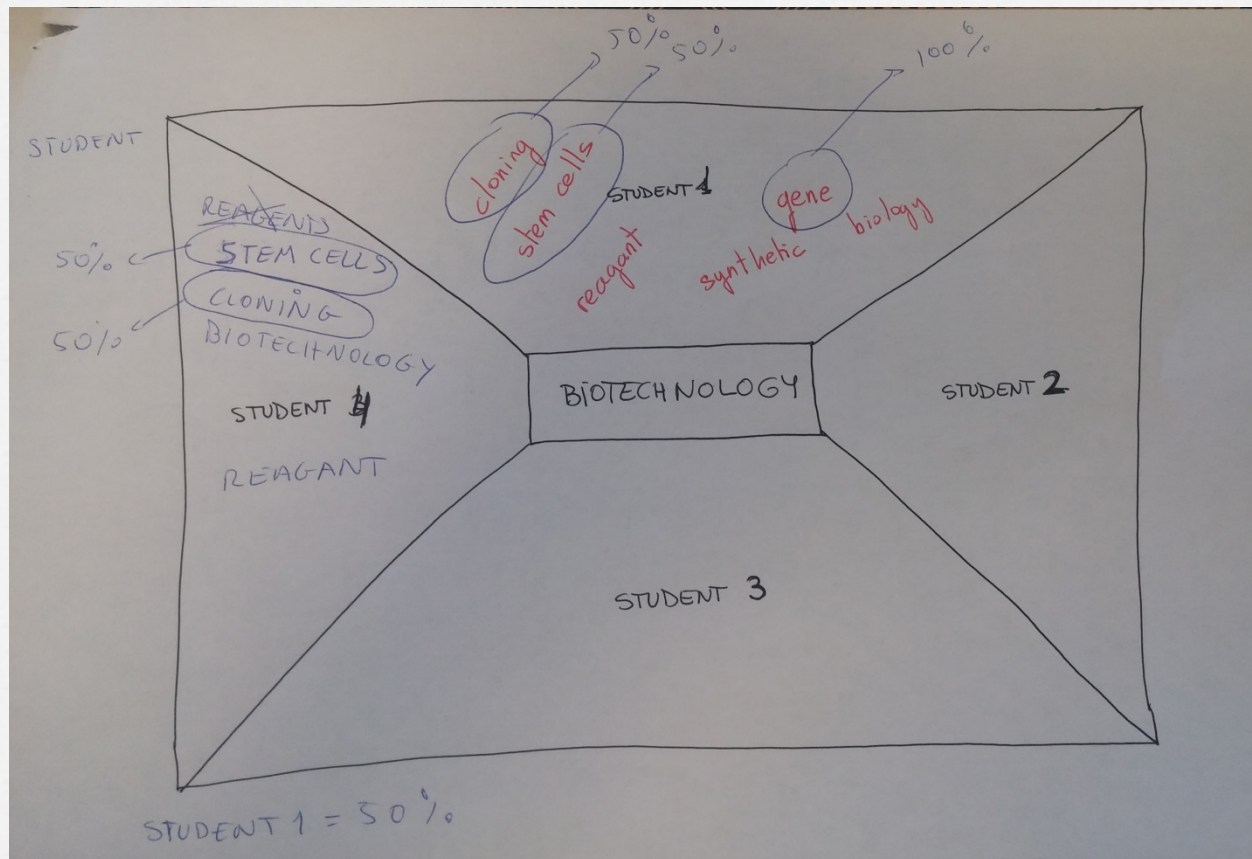
EXAMPLE OF MINDMAP WITH Bubbl.us



COMMUNICATE ACTIVITY: A GAME

- We would use PLACEMAT game in order to make a revision of the understanding of the text.
- Then they can make complete sentences with the vocabulary as they can improve their communicative skills related to the topic.
- There is an example in the next slide.

EXAMPLE OF PLACEMAT





**THANK YOU
FOR YOUR SHARING
AND TIME!**

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