**Lesson Plane Table**

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| **Subject:** | **Chemistry** | | | | |
| Authors: | Teachers: Martano Michele, Petrachi Maria Antonia  Students: Coricciati Emanuele, Mastrolia Claudia, Sergio Alessandro, Stomeo Eleonora | | | | |
| Date: | | | | 01/05/2019 | |
| Estimated time: | | 60 minutes + 60 minutes |  | |  |
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| Summary: | Extraction of the DNA of a plant | | | | |

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| **Objectives**  (Specify skills information that will be taught) | **Activity/ Information**  **Teacher Guide/ Student guide** | **Materials Needed**  (Other resources - web, book...) | **Assessment Methods**  (steps to check for student understanding) | **Time**  **Where?** |
| Promote a more efficient use of technology,  Understand and apply the concepts,  Develop skills on the use of laboratory material,  Encourage group work and peer learning  ***Know Concepts or Keywords:***  - theoretical knowledge on DNA (Deoxyribonucleic acid),  - DNA extraction (practical laboratory activity) | **Motivation Activities**  Do you know the meaning of DNA?  Do you know the chemical structure of DNA  How do the four nitrogenous bases join together?  **Field outing:**  Draws the double helix of DNA;  Write in the worksheet the the backbone chain of a polymer; | Worksheets  Devices:  Smartphone or tablet,  Personal computer  Software application:  DNA apps,  Genome apps | Quiz  Test  Practical activities | Classroom / Laboratory  Overall about 2 hours |

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| **Description of the activity:** | |
| **Introduction** | Main features of the Deoxyribonucleic acid (DNA)DNA extraction |
| **Main activity** | DNA extraction |
| **Lesson Guide (Step by step)** | Projection of presentations and videos |
| **Exercises (2 or 3 levels of difficulty)** | DNA extraction (practical laboratory activity) |
| **Conclusion and Evaluation** | Final tests and quizzes on the proposed topics |
| **Notes** | Students are divided into small groups to carry out practical activities and solve the proposed tests |

Bibliography

* Original and self-produced teaching material, based on information taken from school textbooks and educational websites