**REINFORCEMENT ACTIVITIES**

**Subject: Technology and Computer Science Grado: 4 Period:** 4 **Year:** 2023

**Suggestion**

*Each period, the teacher formulates a problematizing question or situation related to the learning goals that*

*help the student to train him/herself and get ready to prove his/her knowledge and proficiency levels in each*

*area. This process is scheduled from August 17th to August 20th . The student must review the following concepts with the help of the class notes, notebook and work guides, in order to present a presentation that shows the acquired competencies.*

1. **Problematizing Question**

What benefits can emerging technologies offer us?

1. **Learning goals**

* Clearly identify some programming concepts
* Solve mathematical problems by appropriately using the application of formulas and some spreadsheet functions.
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* Identify the logical operation of a robot and the devices that compose it.
* Recognize different functionalities of spreadsheets and processes to design spreadsheets using cell text formats.
* spreadsheets using cell text formatting.
* Identify options to create interactive presentations with markers, action buttons, transitions, audios and buttons, transitions, audio and video.
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1. **Academic concepts developed during the period**

Programming Logic: Definition of algorithm, types of algorithms and examples.

Conceptos de Hojas de cálculo: definición, funciones, componentes, ejemplos hojas de cálculo.

Spreadsheet concepts: definition, functions, components, examples of spreadsheets.

Parts of the windows tab.

Cell formats: borders, zoom in, zoom out, merge, fit text.

Basic formulas (addition, subtraction, multiplication and division).

Common functions: addition, maximum, minimum and average

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Robotics: General operation of a robot, identification of robot parts (sensors, actuators, among others).

Logical sequences.

1. **Bibliographic references.**

✔ Read the guide pages 118 and 119 to review what programming is <https://youtu.be/U3CGMyjzlvM>.

✔ Read the guide pages 122 and 123 to recall spreadsheet contents.

✔ Read the guide pages 127 and 128 and review table layout in a spreadsheet.

✔ Read the guide pages 130 to 133 to review mathematical operations in a spreadsheet.

✔ Read guide page 136 to recall content about robotics and its structure.

✔ All of the above can be supported by videos and internet search.

✔ For the recovery they should be prepared and perform mathematical operations in Excel with everything seen in class, be clear about how a robot is made.

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