

CLIL MultiKey lesson plan

LESSON PLAN

Subject: IT (Information Technology) and ICT (Information and Communication Technologies).

Topic: Using Microsoft Excel to calculate the value of a cell by formulas and functions.

Age of students: 16/17 Students of 1st grade, CLIL beginner stage

Language level: B1

Content aims

After completing the lesson, the student will be able to:

Describe Microsoft Excel's features.

List formulas and functions in Microsoft Excel.

Define a function, a formula and the order of operations (operator precedence).

Explain the differences between function and formula in Microsoft Excel.

Enter and edit the formulas in Microsoft Excel.

Create formulas and functions in worksheet cells to fill the missing place in the data series.

Change the styles of table.

Language aims

After completing the lesson, the student will be able to:

Use subject vocabulary.

Describe creating formulas and functions in Microsoft Excel.

Materials:

Materials needed

Computer stations with installed Microsoft Excel 2007 or higher.

Printed or made in Microsoft Excel worksheet file with examples data tables.

Optional materials

Network to access the Internet

Organization of lesson:

Introduction

Teacher asks students questions:

- How can I represent data? (table, graph).
- How to sum up the numbers from the set of numbers?
- How to calculate the arithmetic average?
- How to reference cell in Microsoft Excel?
- Have you ever used Microsoft Excel calculations?

Procedure

Lead-in:

- Teacher tells the students what formulas and functions in Microsoft Excel are.
- Teacher informs about basic function in Microsoft Excel (sum, average, min, max).
- Teacher defines terms and demonstrates Microsoft Excel's features.
- Teacher explains the differences between function and formula in Microsoft Excel.

Practice/task:

- Students sit at dedicated computer station.
- Teacher supplies printed materials with tasks for students (student handout).
- Teacher shows students how to enter a formula and insert function step by step by the dialog box.
- Students select a function from a category or from list.
- Students themselves create formulas and function in worksheet cells to fill the missing place in the data series (first and second task from a student handout).
- Teacher shows how to format series data table using the pre-set styles for tables.
- Teacher shows how to create a customize table style.

Summary

After completing the exercises and save file.

Remind:

- how to reference cell in excel,
- how to enter formulas and insert functions in Microsoft Excel,
- finding totals using AutoSum & AutoFill,
- how to completing table data by copying formulas or functions,
- how to change the styles of table.

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Student handout¹

Create table 1 and table 2 in Microsoft Excel. Fill in missing cells in each table using Excel formulas and function.

FIRST TASK

In the first table complete/calculate the percentage of students from the same village, students from the outside village and calculate total numbers of students for each groups. Microsoft Excel spreadsheet save as name given below table.

class name	number of students	students from the same village	%	students from the outside village	%
IA	31	28		3	
IB	30	20		10	
IIA	28	16		12	
IIB	29	12		17	
IIC	26	20		6	
IID	30	30		0	
IIIA	26	24		2	
IIIB	27	19		8	
IVA	24	23		1	
IVB	25	17		8	
Total					

Table 1: students.xlsx



SECOND TASK

In the second table complete/calculate a total number and arithmetic average for each classes in the five years. A Microsoft Excel spreadsheet save as name given below table.

	2011	2012	2013	2014	2015	Total	arithmetic average
class I	86	90	80	110	96		
class II	115	104	96	99	91		
class III	91	94	106	91	91		
class IV	86	82	97	88	79		
Total							

Table 2: class.xlsx

¹ Supplementary materials are available on the website at <http://www.excel-easy.com/introduction/formulas-functions.html>