Name (Nazwa)

New born babies statistics

Subjects (Przedmioty) Mathematics, IT

Grade Ranges (Poziomy/Klasy) 10, 11, 12

Languages (Języki) Polish, English

Materials Needed (Potrzebne materiały) Internet, spreadsheet, local newspaper

Communications (Porozumiewanie się) Intranet

Target Groups (Dla kogo?) Pupils

Authors (Autorzy)

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Introduction (Wprowadzenie)

Probably one of the local newspapers is publishing a column with the new born children. It may be a source of interesting information about new born babies This information can be gathered and processed in a spreadsheet.

Task (Zadanie)

Putting the data about new born babies from a newspaper to the spreadsheet. Working with a big (comparatively) database ina a spreadsheet, sorting, filtering. Statistic data analysis – statistical parameters, illustrating on a graphs (regression curve). Ways of processing the data which are not numbers (for example names). Gathering in the Internet interesting data about babies, giving birth in a hospitals... Preparing presentation or WWW site – team work.

Goals (Cele)

Learning the characteristics of a new born children. Understanding of fundamental statistical notions. Ability of processing data and constructing graphs in a spreadsheet.

Process (Przebieg)

Preparing big spreadsheet with a new born children data: 2 persons teams using local newspaper fill prepared spreadsheet with data (each team different children set). Than we gather all teams spreadsheets in one table – the files may be transferred in the intranet or by mail. Teacher should take care about the uniform way of preparing spreadsheets.

In the overall spreadsheet there are different sort of data. Two of them: weight and height are the result of measurement in a interval scales - Length (cm) and mass (g). For these data we can use statistical parameter analysis.

Calculating and making graphs of frequency distribution.

Calculating fundamental statistical parameters (introduction by teacher is needed).

Calculating and illustrating interrelation between weight and height – correlation coefficient and regression curve.

Analyzing other data for example names using a form, sorting and filtering.

Using cross table to calculate frequency distribution of different data. Illustrating the results on graphs.

At the end pupils in teams search the Internet to find the information about new born children, choose the topics of interests and compose presentation or WWW site, linking the data from a spreadsheet and the information gathered from Internet.

Sources (Źródła)

Pages from a local newspaper with new born babies. <u>http://www.oeiizk.edu.pl/informa/oseski/oseski.htm</u> – description of a spreadsheet usage (in Polish). Working with searching engine, for example: <u>http://www.google.pl</u> – using advanced search OseskiEn0.xls – spreadsheet template to fill. OseskiStatEn.doc – description of statistical parameters.

Product (Wynik/produkt)

Spreadsheet with babies data. WWW or PP presentation of a project.

Structure (Strukturyzacja) Medium

Cooperation (Współpraca) High

Reading Level (Poziom umiejętności czytania) High

Time (Czas trwania) 12 to 20 hours

Linked Assignment ID (ID ćwiczenia pokrewnego)

Date (Data) 2005-11-05