**LESSON PLAN**

**CURRICULUM ARIA: Mathematics and Sciences**

**SUBJECT: Chemistry**

**CLASS: VII**

**TEACHER: PhD. Macovei Ada Alexandrina**

**UNIT OF LEARNING: Corp. Substance. Mixture**

**TOPIC: Pollution of water, air and soil**

**TYPE OF LEARNING: Consolidation and systematization of knowledge**

**GENERAL AND SPECIFIC COMPETENCES:**

**5**. Assessing the consequences of chemical processes and the action of chemicals on humans and on environment.

• applying the personal safety rules in the Chemistry lab and the environment protection measures;

• assessing the risk factors and recognizing the importance of certain chemical species;

• assessing the risk factors resulting from putting into practice certain chemical reactions and recognizing their importance.

**OPERATIONAL OBJECTIVES:**

 O1 - to identify causes of pollution and their consequences on environment and humans;

 O2 - to recognize different types of pollution;

 O3 - to exemplify various polluting materials and substances;

 O4 - to collect selectively;

 O5 - to know and apply the measures of preventing environmental pollution;

 O6 - to use language elements specific to the topic.

**TEACHING STRATEGIES:**

a) Procedural resources: directed dialogue, observation, explanation, deductive discovery, the gallery walk;

b) Material resources: Ppt presentation, posters, flyers, displays;

c) Informational resources: computer, video projector, Internet access.

(*Bibliography: Fatu Sanda, Stroe Felicia and Stroe Constantin, Chemistry textbook, 7th grade, Corint Publishing House, 1999)*

**CONTEXT:** The activity takes place in the Chemistry lab, with the whole class, within the Chemistry Teachers Meeting.

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| **Content of the teaching process** |  **Assessment**  |
| Students prepare themselves for the lesson;The guests are introduced and it is explained the purpose of their presence;The objectives of the lesson are presented to the students;Brief revision of the knowledge previously acquired (the clusters on the board);**1. The soil:**- dumping garbage at random;- chemical fertilizers in agriculture;- detergents and other chemicals;- insecticides used against pests;- acid rains;- industrial accidents;- rotting animals;- fires;- agricultural and industrial waste.**2. Water:**- polluting substances brought by soil washing;- animal and vegetable scraps;- household water discharged into flowing water;- ship oil spills (into the Black Sea);- spillage of industrial waste;- hot water from thermal power stations**3. Air:**- gases;- smoke;- dust;- ash**4. Other types of pollution:**Sound pollution - pollution by strong noises of any nature.Natural pollution: earthquakes, volcanoes, hurricanes, fires, floods, lightning, storms, winds.Homework checking;Presentation of the posters made by the students;**Gallery display****Conclusions:** The students have seen the causes and effects of environmental pollution, now they are asked to find several ways in order to protect the environment:• learn how to keep it clean and teach others, too;• not to break the plants, but to plant as many as possible;• not to throw away waste at random;• not to make big noise;• collect selectively;• not to cause fires, etc.Assessment;Presenting the topic of the next lesson;Information dissemination: the students distribute flyers on the topic of the lesson in school; | Observation of students' interestShort-term evaluationFormative assessment through practical tasksOral formative assessment Individual assessment Global assessment |

**The Cluster**



WATER

SOIL

AIR

**POLLUTION**