**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;

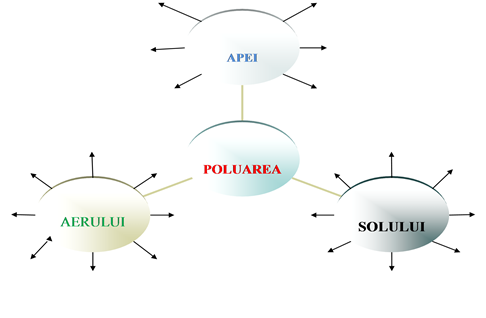
c) Informational resources: computer, video projector, Internet access.

(*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' interest  Short-term evaluation  Formative assessment through practical tasks  Oral formative assessment  Individual assessment  Global assessment |

**The Cluster**



WATER

SOIL

AIR

**POLLUTION**