



WORKSHEET OUTLINE (PRIMARY AND HIGH SCHOOL)

Code
PGF-02-R07

Date
September 14th to October 23rd
2009

Subject: Science
Term: 1st

Grade: Seventh
Worksheet #: 2

Topics: **INTEGRATED CONCEPTS:** Specialized Cells in Human Systems: Urinary, Circulatory, Immune and Respiratory.
Newton's laws, Atomic Structure and Energy, Periodic Table.

WEEK No. 6 (September 14th – 18th)

1. CONTEXT THE CHEMISTRY OF LIFE

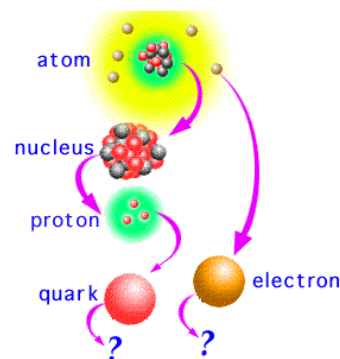
In the previous guide, we have discussed about points of view that explain the origin of life and the way cells have evolved into complex organisms. We have been introduced to the world of science and its disciplines such as Chemistry, Physics and Biology in order to explain the world surrounding us.

Now we will focus our attention on the main building blocks of matter that have interacted together to make life possible on Earth.

EXPLORE ACTIVITY:

Copy and answer the following questions in your notebook:

1. What makes a living thing different from a non living thing?
2. Are the particles that make up a rock different from those of a plant or an animal?
3. What are the main particles that make up an atom?
4. Make a picture of atom labelling the name of its components.



TAKEN FROM:
<http://abyss.uoregon.edu/~js/images/scale.gif>

WEEK No. 7 (September 21st – 25th)

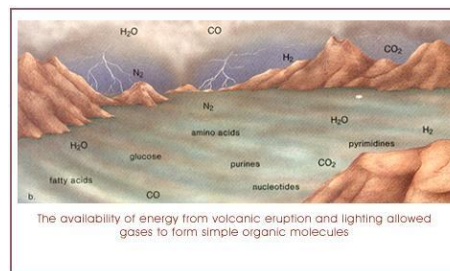
2. ACTIVITIES

2.1. INDIVIDUAL WORK

- Find out a picture about the atom structure and paste it on your notebook.
- Compare the picture you found with the atom you draw in your notebook.
- Make a chart to explain the similarities and differences among the subatomic particles. You can use internet sources.

2.2. GROUP WORK

Search about the main organic molecules were found in the early Earth atmosphere, make some models of them and plan oral presentation to explain how those molecules were arranged in order to produce the chemistry of life.



TAKEN FROM:
<http://www.tutorvista.com/content/biology/biology-iii/origin-life/origin-life-steps.php>

WEEK No. 8 (September 28th – October 2nd)

2.3. LAB PRACTICES

2.3.1 PRACTICE 1:

Follow teacher instructions to identify different elements properties. Make your lab report in your notebook.




2.3.2 PRACTICE 2:

Follow teacher instructions to test some organic compounds. Write the corresponding lab report in your notebook.



TAKEN FROM:
http://www.sciencebuddies.org/science-fair-projects/overview_scientific_method2.gif

<p style="text-align: center;">WEEK No. 9 (October 12th – 16th)</p> <p style="text-align: center;">2.4. WHOLE CLASS WORK</p>  <p>Lecture part and class discussion about the components of the early Earth atmosphere and the main molecules in the chemistry of life.</p> <p>Taken from: http://www.dkimages.com</p>	<p style="text-align: center;">WEEK No. 10 (October 19th – 23rd)</p> <p style="text-align: center;">2.5 CLASS DISCUSSION</p> <p>You will present the lab practices results and conclusions about organic compounds.</p> <p style="text-align: center;">3. COMPLEMENTARY ACTIVITIES</p> <p>Read the exercise: BIOTECHNOLOGY from the book: Biology the Dynamics of Life and suggest some experiments for the science fair to test some important organic compounds, you can use the links below and some other internet pages you find by yourself.</p> <ol style="list-style-type: none"> http://www.all-science-fair-projects.com/science_fair_projects/39/477/01c259ebd93a90afbae9ce6fcff89619.html http://www.energyquest.ca.gov/projects/split_h2o.html 	<p style="text-align: center;">4. ASSESSMENT</p> <p>Students will be evaluated along the whole term throughout:</p> <ul style="list-style-type: none"> ▶ Explore activity results. ▶ Appropriated summaries from information collected. ▶ Lab practices pre-reports and final reports. ▶ Lab Conclusions. ▶ Group activities results. ▶ Managing oral presentations. ▶ PEPA
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5. REFERENCES AND RESOURCES

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