

## Episode 1 - The World of Chemistry

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1. The science of molecules and their transformations is known as \_\_\_\_\_ .
2. Give several examples cited in the film where chemistry is involved in the real world.
3. The introduction of the lithium battery was important to what medical advance?
4. Why is it important to study the molecular structures and chemistry of living systems?
5. The mass of the materials coming out of a factory must be equal to what?
6. In addition to making new materials, chemists are also interested in what?
7. What famous chemist discovered the polypeptide structure known as the alpha helix?
8. Today's powerful microscopes are able to see individual \_\_\_\_\_.
9. What tool do scientists often use to study sub-microscopic structures?
10. What common compound is formed from sodium metal and chlorine gas?
11. What common compound is made by reacting salicylic acid with ethyl acetate?

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## Answer Key

1. The science of molecules and their transformations is known as chemistry.
2. Give several examples cited in the film where chemistry is involved in the real world.

*Student answers will vary.*

3. The introduction of the lithium battery was important to what medical advance?

*Heart pacemakers*

4. Why is it important to study the molecular structures and chemistry of living systems?

*Many problem(s) have a molecular basis.*

5. The mass of the materials coming out of a factory must be equal to what?

*The mass of the starting materials (including waste).*

6. In addition to making new materials, chemists are also interested in what?

*Investigating nature.*

7. What famous chemist discovered the polypeptide structure known as the alpha helix?

*Linus Pauling*

8. Today's powerful microscopes are able to see individual atoms.

9. What tool do scientists often use to study sub-microscopic structures?

*Models*

10. What common compound is formed from sodium metal and chlorine gas?

*Table salt*

11. What common compound is made by reacting salicylic acid with ethyl acetate?

*Aspirin or acetyl salicylic acid*