



# TAVUA COLLEGE

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## WEEKLY HOME STUDY PACKAGE - WEEK 2 (12/07/21 – 16/07/21)

<b>Subject</b>	<b>BIOLOGY</b>	<b>Year/Level</b>	<b>13</b>
<b>Strand</b>	B13.1.2 - EVOLUTION		
<b>Sub-strand</b>	B13.1.2.1 – ORGANIC EVOLUTION –Theories and Evidences		
<b>Content Learning Outcome</b>	Describe theory explaining the origin of life and the evolution of complex life forms from simple life forms. Evaluate the given evidence that supports this theory		

### MODEL ANSWERS

1. **Two** discoveries of Stanley Miller’s experiment:

1. The first experiment was to show that simple organic compounds can be formed from Oparin’s gaseous mixture by passing electricity through it. **(1 mark)**

2. The second experiment was used to show that microorganisms played no part in the formation of organic compound. **(1 mark)**

2. **Organic evolution** refers to the slow and gradual process by which living organisms have changed from the simplest unicellular form to the most complex multi-cellular forms that are existing today. **OR**

The process by which changes in the genetic composition of population occur in response to environmental changes **OR** the events that are involved in the evolutionary development of a species. **(1 mark)**

3. Embryology **(1 mark)**

Embryos of all vertebrates look similar **(1 mark)**

[Additional notes: Embryos of many different animals such as mammals, birds, reptiles, fish, etc. look very similar. Many traits of one type of animal appear in the embryo of another type of animal. For example, in the question, fish, reptile, bird and human embryo all have gill slits. In fish it develops into gills, but in humans it disappears before birth]

4. Homologous Pair: Pair 1 **(1 mark)**

Reason: Pair 1 is homologous pair because it is structurally similar but serve different functions in the both the organisms. **(1 mark)**

**The End**