THE KENYA NATIONAL EXAMINATIONS COUNCIL

GRADE 8 SCHOOL BASED ASSESSMENT

INTEGRATED SCIENCE

SCORING GUIDE

NAME OF THE LEARNER _____

ASSESSMENT NUMBER _____

STRAND 2.0: LIVING THINGS AND THEIR ENVIRONMENT

SUBSTRAND 2.1: THE CELL

Standards

The learner can:

- outline the structure of a plant and an animal cell as observed under a light microscope..
- describe the components of plant and animal cells as observed under a light microscope..
- compare a plant and an animal cell as observed under a light microscope.

INSTRUCTIONS TO THE TEACHER

This paper consists of **two** performance tasks:

Making a model of:

1. **a plant cell as observed under a light microscope.**
2. **an animal cell as observed under a light microscope.**

a) The teacher to guide learners in carrying out the tasks in groups as they:

i. Source for information on making models of a plant cell and an animal cell as observed under a light microscope.
ii. Share collected information on how to make the models.
iii. Identify and collect materials required to make the models.
iv. Make the models of a plant and an animal cell as observed under a light microscope.
v. Observe safety and precautions while using the various tools, materials, equipment and digital devices.
vi. Select appropriate tools, materials, equipment and digital devices for carrying out the project.
vii. Use locally available environmentally friendly resources as much as possible.
viii. Share tools, materials, equipment and digital devices where applicable.
ix. Work as a team,
x. Use the models as a learning resource to discuss the
   - components of a plant cell and an animal cell as observed under a light microscope
   - differences between a plant and an animal cell as observed under a light microscope.
xi. Keep a journal.

b) The teacher will use the scoring guide provided to assess group's performance of the project.

c) The teacher will use the group's score as the individual learner's score.

d) The teacher will key in the project score in the score sheet provided.

e) The teacher will upload the learner's individual score to the CBA portal.

Note: The teacher will assess the task right from the start using the scoring guide provided.

CHECKLIST

Criteria	**Indicators**	**Maximum score**	**Learner's score**	**Teacher's remarks**
1. Sourcing and recording information **Aspects** a. Information on structure of a plant cell as observed under a light microscope. b. Information on structure of an animal cell as observed under a light microscope. c. Information on comparison between a plant an animal cell as observed under a light microscope	**Scores allocation** a) Writes down relevant information on the **3** aspects. **(2)** b) Writes down relevant information on **1** to **2** aspects. **(1)**	**2**		
2. Sharing the information collected.	a) Confidently shares all the relevant information collected on the structure of a plant cell, animal cell and comparison between them. **(1)** b) Hardly shares any information on the structure of a plant and an animal cell and their comparison. **(0)**	**1**		
3. Identifying and collecting materials required to make the models.	a) Materials identified and collected are environmentally friendly and sufficient. **(2)** b) materials identified and collected are environmentally friendly but not sufficient. **(1)**	**2**		
4. Making a model of a plant cell as observed under a light microscope.	**Scores allocation** The model of the plant cell	**5**		

Aspects The model shows 1. cell wall 2. cell membrane 3. cytoplasm 4. nucleus 5. mitochondria 6. lysosomes 7. chloroplasts	a) meets 6 to 7 of the aspects. **(5)** b) Meets 4 to 5 of the aspects. **(4)** c) Meets 3 of the aspects. **(3)** d) Meets 2 of the aspects. **(2)** e) meets 1 of the aspects. **(1)**			
5. Making a model of an animal cell as observed under a light microscope. **Aspects** The model shows a. cell membrane b. cytoplasm c. nucleus d. mitochondria e. lysosomes f. nucleolus g. Golgi apparatus	**Scores allocation** The model of the animal cell a) meets 6 to 7 of the aspects. **(5)** b) Meets 4 to 5 of the aspects. **(4)** c) Meets 3 of the aspects. **(3)** d) Meets 2 of the aspects. **(2)** e) meets 1 of the aspects. **(1)**	**5**		
6. Observing safety	a) demonstrates safe handling of materials and tools throughout the project. **(2)** b) sometimes during the project. **(1)**	**2**		
7. Displaying finished models of a plant cell and an animal cell	The learner confidently displays the two models **(1)**	**1**		
8. Using the models to compare the structure of a plant cell with that of an animal cell. **Aspects** a. Presence of cell wall in plant cell and absent in animal cell b. Centrally located nucleus in animal cell while it is away from	**Scores allocation** The learner compares the structure of a plant cell with that of an animal cell using: a) All 6 or 5 of the aspects. **(4)** b) Any 4 of the aspects. **(3)** c) Any **3** of the aspects. **(2)** d) Any **1** to **2** aspects. **(1)**	**4**		

the centre in a plant cell. c. Vacuoles present always in plant cells and temporary in animal cell. d. Chloroplasts present in plant cell but absent in animal cell. e. Plant cell has a regular shape but not so for an animal cell. f. Plant cell is usually larger than animal cell.				
9. Teamwork **Aspects** a) Evidence of collaboration b) Evidence of commitment by everyone in the team	**Scores allocation** Both aspects are evident. **(2)** Only one of the aspects is evident. **(1)**	**2**		
10. Keeping journal	Record of chronological occurrence of activities.	**1**		
TOTAL		**25**		

ASSESSMENT RUBRIC

Task	**Maximum score**	**Scores range**	**Performance level**	**Description**
Making models of a plant cell and an animal cell as observed under a light microscope.	25	24-25	4	Exceeding Expectation
		19-23	3	Meeting Expectation
		11-18	2	Approaching Expectation
		0-10	1	Below Expectation

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GRADE 8 SCHOOL BASED ASSESSMENT

INTEGRATED SCIENCE PROJECT SCORE SHEET

S.N	Name of Learner	Learner's Score
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