

AUGUST 2023
EBS 323
METHODS OF TEACHING PRIMARY
SCHOOL SCIENCE
2 HOURS

Candidate's Index Number
Signature:

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
SCHOOL OF EDUCATIONAL DEVELOPMENT AND OUTREACH
INSTITUTE OF EDUCATION

COLLEGES OF EDUCATION
FOUR-YEAR BACHELOR OF EDUCATION (B.ED)
THIRD YEAR, END-OF-FIRST SEMESTER EXAMINATION, AUGUST 2023

17TH AUGUST 2023

METHODS OF TEACHING PRIMARY
SCHOOL SCIENCE

9:00 AM – 9:40 AM

This paper consists of two sections, A and B. Answer ALL the questions in Section A and TWO questions from Section B. Section A will be collected after the first 40 minutes.

SECTION A
(40 MARKS)

Answer ALL questions in this Section.

For items 1 to 20, each stem is followed by four options lettered A to D. Read each item carefully and circle the letter of the correct or best option.

1. Which one of the following is **not** a field of Applied Science?
 - A. Engineering
 - B. Forestry
 - C. Pharmacy
 - D. Physics
2. The scientific knowledge which is based on evidence and which could be replicated by other investigators working at different places is termed
 - A. empirical.
 - B. replicable.
 - C. systematic exploration.
 - D. verifiability.
3. Which one of the following is **not** a suitable similarity between Science and Technology?
 - A. Both create or solve human problems.
 - B. Both are reproductive.
 - C. Changes occur only gradually in one of them.
 - D. They are closely interwoven.

4. Personal competencies include the following soft skills **except**
- A. being culturally and gender insensitive.
 - B. being flexible and capable of adjusting to novel situations.
 - C. encouraging a love for learning.
 - D. establishing high but achievable expectations.
5. Which one of the following statements is an advantage of reflective teaching?
- A. Develops the quality of teaching.
 - B. Learners stay focused and think critically.
 - C. Promotes co-operation between the teacher and learners.
 - D. Students' achievements are well monitored.
6. Teaching aids that help the learner to acquire knowledge through the auditory senses are known as aids.
- A. activity
 - B. audio
 - C. audio-visual
 - D. visual
7. All the following words are synonymous with formative evaluation **except**
- A. feedback.
 - B. final outcome.
 - C. improvement.
 - D. ongoing.
8. Which one of the supposed written objectives satisfies the acronym **SMART**?
- A. By the end of the lesson, the pupil should be able to list four organs of the human digestive system.
 - B. By the end of the lesson, the pupil should be able to mention the organs of the digestive system.
 - C. The pupil should be able to identify organs of the digestive system.
 - D. The pupil should be able to mention at least four organs of the human digestive system.
9. The standard procedure in the presentation of instructional materials and the content of activities during a lesson presentation is called teaching
- A. approach.
 - B. method.
 - C. strategy.
 - D. style.
10. Displays on a large piece of manila card that is designed to be shown to a class or a group during a lesson are referred to as
- A. charts.
 - B. diagrams.
 - C. models.
 - D. pictures.
11. The phrase " To develop scientific literacy in learners" is an example of
- A. behavioural objective.
 - B. goal.
 - C. instructional objective.
 - D. learning objective.

12. Which one of the following is **not** a major level of knowledge? knowledge
- A. Conceptual
 - B. Factual
 - C. Procedural
 - D. Strategic
13. The ability to convert learned responses into habitual actions with proficiency and confidence is termed
- A. adaptation.
 - B. complex overt response.
 - C. mechanism.
 - D. origination.
14. Which one of the following is **not** a constructivist theory?
- A. Knowledge is constructed from (and shaped by) experience.
 - B. Learning is a personal interpretation of the world.
 - C. Learning is an active process.
 - D. Learning needs to focus on overall concepts and isolated facts.
15. The plan, which ensures that the content of the syllabus provided by a certain period; for instance a term; is taught within that period is called
- A. expanded scheme of learning.
 - B. lesson notes.
 - C. lesson plan.
 - D. scheme of learning.
16. The pre-determined level of knowledge, skill and/or attitude that a learner attains by a set of education is referred to as
- A. content standards.
 - B. exemplar.
 - C. indicator.
 - D. strands.
17. A body of skills that teachers at all levels should seek to develop in their learners are
- A. core competencies.
 - B. plenary.
 - C. reflection.
 - D. starter.
18. Which one of the following is **not** a behaviourist?
- A. B. F. Skinner
 - B. Ivan Pavlov
 - C. Jean Piaget
 - D. Thorndike
19. The support and guidance which clearly explains the expected outcomes of an indicator and suggests what teaching and learning activities could take, to support the facilitators/teachers in the delivery of the curriculum is
- A. content.
 - B. exemplar.
 - C. learning indicator.
 - D. performance indicator.

20. The option that depicts the deductive learning approach is
- A. Hypothesis---> Observation---> Theory---> Confirmation.
 - B. Observation---> Theory---> Hypothesis---> Confirmation
 - C. Theory---> Confirmation---> Observation----> Hypothesis
 - D. Theory---> Hypothesis---> Observation---> Confirmation

For items 22 to 30, write the appropriate responses in the spaces provided.

21. The process of placing a collection of objects or events in categories based on similar characteristics is termed
22. Assessing the result of an experiment and finding conclusions or inferring conclusions from the experiment to determine whether the results confirm one's prior predictions or not is referred to as
23. Teaching is to be considered in terms of various steps, the different steps constituting the process are called the
24. The description of a process that attempts to modify behaviour through the use of positive and negative reinforcement is termed as
25. The psychology of learning which emphasizes human cognition or intelligence as a special endowment enabling man to form hypotheses and develop intellectually is known as
26. The ability of a learner to discriminate between relevant and irrelevant information can be classified as domain.
27. The method of teaching that involves a technique in which a teacher challenges his/her class with problems (questions) that stimulate creative thinking and lead to the development of new ideas among the learners is
28. The combination of all the teaching aids that are necessary to enable the learner to engage in a specified useful activity is known as
29. The description of the underlying behaviours for teaching, learning and assessment. In simple terms is called
30. The method of learning science which is organized with structured learning activity and governed by rules with a specific goal and an element of fun which may involve competition is known as

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SECTION B
[60 MARKS]

Answer THREE questions in all; Question 1 and any other TWO questions.

1. With reference to the information provided below, that is:

Strand: SYSTEMS

Sub-strand: THE HUMAN BODY SYSTEM

Content standard: Recognise that different parts of the human body work interdependently to perform a specific function.

Indicator: Explain that the external parts of the human body work interdependently to perform a function.

Performance Indicator: Learners engage in various activities and explain how the various parts of the body contribute to undertake the activity successfully.

You are to prepare a **30-minute** lesson plan for Basic Stage **three** Learners of a class size of 45 learners using the **daily lesson plan template**.

(30 marks)

- 2.
- a. Explain **three** reasons why science is taught at the Basic School. (3 marks)
 - b. Explain **two** importance of classroom assessment. (4 marks)
 - c. Enumerate and explain any **four** pedagogical implications to teaching and learning process in science. (8 marks)
- 3.
- a.
 - i. Who is a Good Learner? (2 marks)
 - ii. List **four** qualities of a good learner. (4 marks)
 - b. With the aid of a diagram explain inductive learning. (6 marks)
 - c. Mention **three** teaching competencies expected of a science teacher. (3 marks)
- 4.
- a. What is Activity Method? (3 marks)
 - b. Give **two** reasons why teachers ask questions. (4 marks)
 - c. State and explain **four** reasons why a science teacher uses teaching aids in teaching. (8 marks)
- 5.
- a. Identify a difference between Classroom Management and Behaviour Management. (4 marks)
 - b. State and explain **three** reasons why a science teacher should be capable of managing science lessons. (6 marks)
 - c.
 - i. What is Delivery Activity? (2 marks)
 - ii. Mention **three** limitations of peer teaching. (3 marks)