UGANDA NATIONAL EXAMINATIONS BOARD

CONTINUOUS ASSESSMENT OBSERVATION CHECKLIST

535 PHYSICS

Senior 3, Term 2

Centre/CA No: .... **Year:** ....

Learner's Name: .... **Learner ID:** ....

Instructions to the facilitator:
1. This observation checklist contains **one** competency, which **must** be assessed by the end of this term.
2. Please **tick** against the indicator(s) the learner has exhibited at every level assessed.
3. Record the **number of indicators observed** in the boxes provided at the end of each level for **Subject Competency (SC)** and **Generic Skill (GS)**.
4. Indicate **N/A** if the learner has not been assessed for a particular level(s).

Theme:	Light
Topic:	Lenses and Optical Instruments.
Learning Outcome(s):	Know the properties of converging and diverging lenses, and how they are used in everyday life.
Subject Competency (SC):	Carries out investigations to determine the focal length of lenses.
Generic Skill (GS):	Critical thinking and problem-solving.
Learning Domain:	Psychomotor.

Level 1: Imitation

Subject Competency (SC): Imitating the teacher/peer/video clip/laboratory technician, etc., carrying out an investigation to determine the focal length of lenses, the learner:

☐ States the aim of the experiment clearly, using relevant words.
☐ Identifies the independent variable correctly.
☐ Identifies the dependent variable correctly.
☐ Identifies the controlled variable correctly.
☐ States the hypothesis of the experiment clearly, using relevant words.
☐ Lists all the relevant apparatus/materials required for the experiment.

- Draws/makes correct experimental setup.
- Writes the procedure of the experiment coherently/logically.
- Identifies and writes risks/errors or sources of errors in the experiment to be carried out.
- States the precaution(s)/mitigation(s) to the identified error(s).
- Carries out the experiment/investigation, following the stated procedure.
- Presents/records data in a logical format.
- Records data accurately, based on the instrument used and the required range.
- Carries out data analysis using an appropriate method(s).
- Interprets data correctly.
- Draws an appropriate conclusion, based on the interpretation made.
- Gives appropriate advice/recommendation(s), based on the findings.

Generic Skill (GS): Imitating the teacher/peer/video clip/laboratory technician, etc., demonstrating critical thinking and problem-solving skills in carrying out an investigation to determine the focal length of lenses, the learner:

- Plans and carries out investigations to determine the focal length of a convex lens.
- Sorts and analyses information in determining the focal length of a convex lens.
- Identifies problems and ways forward in determining the focal length of a convex lens.
- Predicts outcomes and makes reasonable decisions in determining the focal length of a convex lens.
- Evaluates different solutions in determining the focal length of a convex lens.

Level 1 Indicators	
SC	GS

Level 2: Manipulation

Subject Competency (SC): Following instructions from the teacher/video clip/ peer/manual, etc., to determine the focal length of lenses, the learner:

Following instructions from the teacher, video clip, peer, science/laboratory manual, etc., to carry out an investigation to determine the focal length of lenses, the learner:

- States the aim of the experiment clearly, using relevant words.
- Identifies the independent variable correctly.
- Identifies the dependent variable correctly.
- Identifies the controlled variable correctly.
- States the hypothesis of the experiment clearly, using relevant words.
- Lists all the relevant apparatus/materials required for the experiment.
- Draws/makes correct experimental setup.
- Writes the procedure of the experiment coherently/logically.
- Identifies and writes risks/errors or sources of errors in the experiment to be carried out.
- States the precaution(s)/mitigation(s) to the identified error(s).

- ☐ Carries out the experiment/investigation, following the stated procedure.
- ☐ Presents/records data in a logical format.
- ☐ Records data accurately, based on the instrument used and the required range.
- ☐ Carries out data analysis using an appropriate method(s).
- ☐ Interprets data correctly.
- ☐ Draws an appropriate conclusion, based on the interpretation made.
- ☐ Gives appropriate advice/recommendation(s), based on the findings.

Generic Skill (GS): Following instructions from the teacher/video clip/ peer/ manual, etc., to demonstrate critical thinking and problem-solving skills in carrying out an investigation to determine the focal length of lenses, the learner:

- ☐ Plans and carries out investigations to determine the focal length of a convex lens.
- ☐ Sorts and analyses information in determining the focal length of a convex lens.
- ☐ Identifies problems and ways forward in determining the focal length of a convex lens.
- ☐ Predicts outcomes and makes reasonable decisions in determining the focal length of a convex lens.
- ☐ Evaluates different solutions in determining the focal length of a convex lens.

Level 2 Indicators	
SC	GS

Level 3: Precision

Subject Competency (SC): Carrying out an investigation to determine the focal length of lenses independently with minimal errors, the learner:

- ☐ States the aim of the experiment clearly, using relevant words.
- ☐ Identifies the independent variable correctly.
- ☐ Identifies the dependent variable correctly.
- ☐ Identifies the controlled variable correctly.
- ☐ States the hypothesis of the experiment clearly, using relevant words.
- ☐ Lists all the relevant apparatus/materials required for the experiment.
- ☐ Draws/makes correct experimental setup.
- ☐ Writes the procedure of the experiment coherently/logically.
- ☐ Identifies and writes risks/errors or sources of errors in the experiment to be carried out.
- ☐ States the precaution(s)/mitigation(s) to the identified error(s).
- ☐ Carries out the experiment/investigation, following the stated procedure.
- ☐ Presents/records data in a logical format.
- ☐ Records data accurately, based on the instrument used and the required range.
- ☐ Carries out data analysis using an appropriate method(s).
- ☐ Interprets data correctly.
- ☐ Draws an appropriate conclusion, based on the interpretation made.
- ☐ Gives appropriate advice/recommendation(s), based on the findings.

Generic Skill (GS): Demonstrating critical thinking and problem-solving skills independently in carrying out an investigation to determine the focal length of lenses, the learner:

☐ Plans and carries out investigations to determine the focal length of a convex lens.
☐ Sorts and analyses information in determining the focal length of a convex lens.
☐ Identifies problems and ways forward in determining the focal length of a convex lens.
☐ Predicts outcomes and makes reasonable decisions in determining the focal length of a convex lens.
☐ Evaluates different solutions in determining the focal length of a convex lens.

Level 3 Indicators	
SC	GS

Level 4: Articulation

Subject Competency (SC): Carrying out an investigation to determine the focal length of lenses correctly and innovatively, the learner:

☐ States the aim of the experiment clearly, using relevant words.
☐ Identifies the independent variable correctly.
☐ Identifies the dependent variable correctly.
☐ Identifies the controlled variable correctly.
☐ States the hypothesis of the experiment clearly, using relevant words.
☐ Lists all the relevant apparatus/materials required for the experiment.
☐ Draws/makes correct experimental setup.
☐ Writes the procedure of the experiment coherently/logically.
☐ Identifies and writes risks/errors or sources of errors in the experiment to be carried out.
☐ States the precaution(s)/mitigation(s) to the identified error(s).
☐ Carries out the experiment/investigation, following the stated procedure.
☐ Presents/records data in a logical format.
☐ Records data accurately, based on the instrument used and the required range.
☐ Carries out data analysis using an appropriate method(s).
☐ Interprets data correctly.
☐ Draws an appropriate conclusion, based on the interpretation made.
☐ Gives appropriate advice/recommendation(s), based on the findings.

Generic Skill (GS): Demonstrating critical thinking and problem-solving skills correctly while carrying out an investigation to determine the focal length of lenses, the learner:

☐ Plans and carries out investigations to determine the focal length of a convex lens.
☐ Sorts and analyses information in determining the focal length of a convex lens.
☐ Identifies problems and ways forward in determining the focal length of a convex lens.

- Predicts outcomes and makes reasonable decisions in determining the focal length of a convex lens.
- Evaluates different solutions in determining the focal length of a convex lens.

Level 4 Indicators	
SC	GS

Level 5: Naturalisation

Subject Competency (SC): Carrying out an investigation to determine the focal length of lenses with ease, the learner:

- States the aim of the experiment clearly, using relevant words.
- Identifies the independent variable correctly.
- Identifies the dependent variable correctly.
- Identifies the controlled variable correctly.
- States the hypothesis of the experiment clearly, using relevant words.
- Lists all the relevant apparatus/materials required for the experiment.
- Draws/makes correct experimental setup.
- Writes the procedure of the experiment coherently/logically.
- Identifies and writes risks/errors or sources of errors in the experiment to be carried out.
- States the precaution(s)/mitigation(s) to the identified error(s).
- Carries out the experiment/investigation, following the stated procedure.
- Presents/records data in a logical format.
- Records data accurately, based on the instrument used and the required range.
- Carries out data analysis using an appropriate method(s).
- Interprets data correctly.
- Draws an appropriate conclusion, based on the interpretation made.
- Gives appropriate advice/recommendation(s), based on the findings.

Generic Skill (GS): Demonstrating cooperation & self-directed learning with ease while carrying out an investigation to determine the focal length of lenses, the learner:

- Plans and carries out investigations to determine the focal length of a convex lens.
- Sorts and analyses information in determining the focal length of a convex lens.
- Identifies problems and ways forward in determining the focal length of a convex lens.
- Predicts outcomes and makes reasonable decisions in determining the focal length of a convex lens.
- Evaluates different solutions in determining the focal length of a convex lens.

Level 5 Indicators	
SC	GS