



UGANDA NATIONAL EXAMINATIONS BOARD
CONTINUOUS ASSESSMENT OBSERVATION CHECKLIST
535 PHYSICS
Senior 3, Term 1

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:	Refraction, Dispersion, and Colours.
Learning Outcome(s):	Determine the refractive index of glass.
Subject Competency (SC):	Carries out an investigation to determine the refractive index of glass.
Generic Skill (GS):	Cooperation and self-directed learning.
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 refractive index of glass, 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 cooperation & self-directed learning while carrying out an investigation to determine the refractive index of glass, the learner:

- ☐ Works effectively in diverse teams while determining the refractive index of glass.
- ☐ Interacts effectively with others while determining the refractive index of glass.
- ☐ Takes responsibility for own learning while determining the refractive index of glass.
- ☐ Works independently with persistence in determining the refractive index of glass.
- ☐ Manages goals and time.

Level 1 Indicators	
SC	GS

Level 2: Manipulation

Subject Competency (SC): Following instructions from the teacher, video clip, peer, manual, etc., to carry out an investigation to determine the refractive index of glass, 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 cooperation & self-directed learning while carrying out an investigation to determine the refractive index of glass, the learner:

- ☐ Works effectively in diverse teams while determining the refractive index of glass.
- ☐ Interacts effectively with others while determining the refractive index of glass.
- ☐ Takes responsibility for own learning while determining the refractive index of glass.
- ☐ Works independently with persistence in determining the refractive index of glass.
- ☐ Manages goals and time.

Level 2 Indicators	
SC	GS

Level 3: Precision

Subject Competency (SC): Carrying out an investigation to determine the refractive index of glass independently but 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 cooperation & self-directed learning independently while carrying out an investigation to determine the refractive index of glass, the learner:

- ☐ Works effectively in diverse teams while determining the refractive index of glass.
- ☐ Interacts effectively with others while determining the refractive index of glass.
- ☐ Takes responsibility for own learning while determining the refractive index of glass.
- ☐ Works independently with persistence in determining the refractive index of glass.
- ☐ Manages goals and time.

Level 3 Indicators	
SC	GS

Level 4: Articulation

Subject Competency (SC): Carrying out an investigation to determine the refractive index of glass 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 cooperation & self-directed learning correctly and innovatively while carrying out an investigation to determine the refractive index of glass, the learner:

- ☐ Works effectively in diverse teams while determining the refractive index of glass.
- ☐ Interacts effectively with others while determining the refractive index of glass.
- ☐ Takes responsibility for own learning while determining the refractive index of glass.

- ☐ Works independently with persistence in determining the refractive index of glass.
- ☐ Manages goals and time.

Level 4 Indicators	
SC	GS

Level 5: Naturalisation

Subject Competency (SC): Carrying out an investigation to determine the refractive index of glass 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 refractive index of glass, the learner:

- ☐ Works effectively in diverse teams while determining the refractive index of glass.
- ☐ Interacts effectively with others while determining the refractive index of glass.
- ☐ Takes responsibility for own learning while determining the refractive index of glass.
- ☐ Works independently with persistence in determining the refractive index of glass.
- ☐ Manages goals and time.

Level 5 Indicators	
SC	GS