

MAHAJUBILEE TRAINING COLLEGE

MULLOORKARA - THRISSUR (DT.) Pin: 680 583



ACHIEVEMENT TEST

Year ..2020-2022

Name : ANNA VINO

Reg.No. : MTAUT.PNO02

Optional Subject : PHYSICAL SCIENCE

MAHAJUBILEE TRAINING COLLEGE

MULLOORKARA - THRISSUR (DT). 680 583



ACHIEVEMENT TEST

Year : 2020-2022

Name : ANNA VITO.....

Reg.No. : MTUAT.PN002.....

Optional Subject : PHYSICAL SCIENCE.....

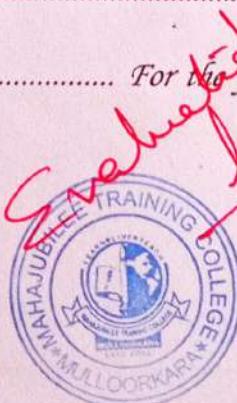
Certified that this is the bonafide record of.....ANNA VITO.....

Reg. No.MTUAT.PN002..... For the year....2020-2022.....

Reshma
FACULTY MEMBER

Date...18/01/2022...

Asst. PROFESSOR IN PHYSICAL SCIENCE
MAHAJUBILEE TRAINING COLLEGE
MULLOORKARA - 680 583



Mr. S. K. S.
PRINCIPAL

Date...18/01/2022...

Rev. Dr. Chacko Chiramel
PRINCIPAL
MAHAJUBILEE TRAINING COLLEGE
MULLOORKARA - THRISSUR

INDEX

SI. No.	Contents	Page No.
1.	INTRODUCTION	3
2.	NEED AND SIGNIFICANCE OF ACHIEVEMENT TEST	4
3.	DEFINITION	5
4.	PREPARATION OF ACHIEVEMENT TEST	5
5.	ACHIEVEMENT TEST-I	11
6.	ACHIEVEMENT TEST-II	43
7.	CONCLUSION	73

ACHIEVEMENT TEST

1. INTRODUCTION

An achievement test is a test aimed to get the data about the student's knowledge or capability in one subject. An achievement test is also a test that can identify the student's strengths and weaknesses in one subject. It is used to measure a pupil's achievement and progression in a specific subject or topic over a set period of time. It helps in evaluating the effectiveness of teaching instructions. It also provides feedback to the students as well as to the teachers. The achievement test has the focus on the realization of objectives of teaching and learning.

An achievement test is an important tool in school evaluation and has great significance in measuring instructional progress and progress of the students in the subject area.

Achievement test scores are often used in an educational system to determine what level of instruction for which a student is prepared. High achievement scores usually indicates a mastery of grade-level material and the readiness for advanced instruction. Low achievement scores can indicate the need for remediation or repeating a course grade.

Achievement test may be of different types on the basis of purpose for which it is administered. The most common type of achievement test is a standardized test developed to measure skills and knowledge learned in a given grade level, usually through planned instruction, such as training or classroom instruction.

2. NEED AND SIGNIFICANCE OF ACHIEVEMENT TEST

- Achievement test are very useful in evaluating and improving the curriculum meant for the students of different grades.
- It gives educational guidance by assessing the capabilities of the students.
- To assess how the students is performing in theory as well as practical.
- Achievement tests enable the parents and teachers to know strengths and weaknesses in the context of their academic achievements as a result of which they can be able to provide special help and guidance to their children.
- To motivate the students to pick up new assignment and works.

3. DEFINITION

An achievement test is one designed to measure a student's grasp of knowledge or his proficiency in certain skills.

It is a systematic procedure for determining the amount a student has learned through instructions.

Achievement test is assigned to measure knowledge, understanding or skills in a specified subject or a group of subjects.

4. PREPARATION OF ACHIEVEMENT TEST

The basis for construction of the achievement test in the traditional classroom was the theory of Bloom's Taxonomy. But now a days educators give importance for constructivist classroom and to the assessment of attainment of mental process so there is weightage for the mental process objective from the theory of Revised Bloom's Taxonomy.

There are several steps involved in the construction of achievement test. They are :

1. Planning of the test
2. Preparation of a design for the test
3. Preparation of the blueprint
4. Writing of items
5. Preparation of the scoring key and marking scheme
6. Preparation of the question wise analysis.

PLANNING OF THE TEST

Planning of the test is the first important step in the test construction. The main goal of the evaluation process is to collect valid, reliable and useful data about the student. The first step involves three major considerations.

- Formulation of the statement of objective
- Formulation of the purpose of the test
- Construction of the test
- Emphasis on course content.

PREPARATION OF A DESIGN FOR THE TEST

After determining the broad scope of the test a design has to be developed in tune with it. The learning outcomes, content, forms of questions, the difficulty levels of items, scheme of options and scheme of sections are the most important factors to be considered in such a design.

i). Weightage to content

This indicates the various aspects of the content to be tested and the weightage to be given to each of these aspects. Suppose a lesson or unit including various aspects of study or subunits had been taught. To test these aspects questions covering all the aspects should be included in the design with due weightage assigned to each aspect in relation to its importance with other aspects.

ii). Weightage to thinking skills

60% weightage may be given to thinking skills used for factual and conceptual attainment. 40% weightage may be given to thinking skills for conceptual generation.

iii). Weightage to form of questions

This indicates forms of questions (objective type, short answer type, essay type) to be included in the test and the weightage to each form of questions. 15 to 20% weightage of total score must be given to objective type questions and upto 20% weightage of the total score given to essay type questions. The height score given to a question is limited to 10% of the total score.

iv). Weightage to difficulty level

The test should cater to the bright, average and

the dull. Discriminating power, that is the ability to discriminate high achievers, average achievers and low achievers is a quality to be maintained by a good test. Test should contain easy, average and difficult questions.

V). Scheme of option

It means the option or choices given to the students to select certain questions. There may be external option and internal option.

VI). Scheme of sections

It means the arrangement of questions into separate divisions.

PREPARATION OF A BLUE PRINT

A blueprint gives the details of the design in concrete terms. Blueprint is prepared as a three dimensional chart indicating the distribution of questions objective wise, content wise, and form wise. Blueprint gives the framework for the test and indicates the broad limit within which the test constructor has to work.

WRITING OF ITEMS

With the precise directive suggested by the blueprint the paper setter writing items according to the requirements. The difficulty level has to be considered while writing items. It should also be checked whether

all the questions included can be answered within the time allotted.

PREPARATION OF THE SCORING KEY AND THE MARKING SCHEME

In order to maintain objectivity, scoring should be made in accordance with a predesigned scheme of evaluation. In the case of objective type items, scoring key is prepared. In the case of short answer and essay type questions marking scheme is prepared. The various value points for responses are determined and marks are allowed to each valuepoint for responses and are determined and indicated.

PREPARATION OF QUESTION-WISE ANALYSIS

In order to avoid all loopholes, the setter prepares a table containing all relevant details of all the items of the test. This is done by making an analysis of each item in terms of content, thinking skills, specific thinking skills, forms of questions, marks and estimated time. This analysis is helpful to check whether all the aspects envisaged in the design and blue print are satisfied by the test in its final form.

MAHAJUBILEE

TRAINING COLLEGE

MULLOORKARA - THRISSUR (DT). 680 583



RECORD OF DISCUSSION LESSONS, DEMONSTRATION LESSONS & CRITICISM LESSONS

Year: 2020-2022

Name

: ANNA V. JO

Reg.No.

: M.T.AUT.PN002

Subject

: PHYSICAL SCIENCE - DISCUSSION, DEMONSTRATION & CRITICISM

Certified that this is the bonafide record of.....ANNA V. JO.....

Reg. No.....M.T.AUT.PN002.....

For the year.....2020-2022

Reshma
FACULTY MEMBER

Date: 5/10/2021
PROFESSOR IN PHYSICAL SCIENCE
MAHAJUBILEE TRAINING COLLEGE
MULLOORKARA - 680 583

Eduwar
PRINCIPAL
5/10/2021

Date: Dr. Chacko Chiramel
PRINCIPAL
MAHAJUBILEE TRAINING COLLEGE
MULLOORKARA - THRISSUR

DISCUSSION LESSONS

DISCUSSION LESSON PLAN -1

I. General Information

Name of the teacher : Anna. Vyo

Name of the college: MJTC Mullukkara

Strength : 1X

Subject : Physics

Unit : Forces in fluids

Duration : 45 min

Topic : Pascal's law

Date : 26/6/2021

II. Curricular Objectives

To understand the concept of Pascal's law through observation, experimentation, discussion and its beneficiaries in daily life.

III Content Overview

Pascal's law and its applications.

Yours
Anna
Vyo
M.J.T.C.
Mullukkara
Kerala
India

IV. Content Analysis

- a). Terms - Force, pressure, closed system, pascal's law, volume, equilibrium weight, work, area.
- b). Facts -
 - Volume of a liquid cannot be changed using pressure.
- c). Concepts -
 - Applied force results in change of shape of a body.
 - Pressure is directly proportional to force and inversely proportional to area of contact.
- d). Law - Pascal's law.

V. Process Analysis

Process skills : observation, Experimenting, discussion, communicating,

Tabulating

- a). Process :
 - Observes experiment related to Pascal's law.
 - Discuss and infer the results
 - Finding examples related to daily life.

VI. Learning Outcomes

- learners can explain Pascal's law and recognise the relation between the related variables.
- learners must be able to find everyday examples related to Pascal's law.

VII. Learning Aids

- Pictures and demonstrations related to Pascal's law
- videos related to Pascal's law.

VIII. Pre-requisites

Students should have previous knowledge about force and pressure.

IX. Expected Products

- science dairy consisting of observation and inference of the experiment.
- science dairy with derivation of Pascal's law.
- Examples related to daily life.

X Classroom Transactions

Activity	Response
<u>Sensitization</u> Teacher enters the classroom with a good smile and students greeted the teacher. Then she asked about previous classes and ready to take a new topic.	Students gets back.
<u>Activity 1</u> Teacher asks a student to push a desk. Due to the effect of his push, the position of the desk changed. So what is this effect of push called. <u>Points to be consolidated</u> The effect that displaces a body is called force.	
<u>Activity 2</u> Teacher fill an empty toothpaste tube completely with water and closed it tightly, two or more holes	

are put at random in the tube with a pin. Press with fingers anywhere on the tube.

Points to be consolidated

Force applied to a closed surface the pressure is equally distributed.

Activity 3

Teacher fills two identical syringes with water and connected them with a plastic tube and setup in their inverted position. A small weight is kept at one syringe end and a push is given in other syringe end. Teacher asked the children to observe.

Points to be consolidated

Relation between applied forces and area of contact.

Activity 4

Teacher shows the video presentation of hydraulic jack used to push vehicles upward and derives a relation of applied force and the effect of force.

Students observing the experiment.

Students watching video.

Points to be consolidated

According to Pascal's law, pressure applied at one end is equal to the effect of pressure at other end.

$$P_x = P_y$$

Since, $P = \frac{F}{A}$

$$\frac{F_1}{A_1} = \frac{F_2}{A_2}$$

$$F_2 = \left[\frac{A_2}{A_1} \right] F_1$$

So the effect of force will be very greater when we reduce A_1 and increase A_2 where A_1 and A_2 are area of 1st and 2nd surface.

Points to be consolidated

- Equation for Pascal's law

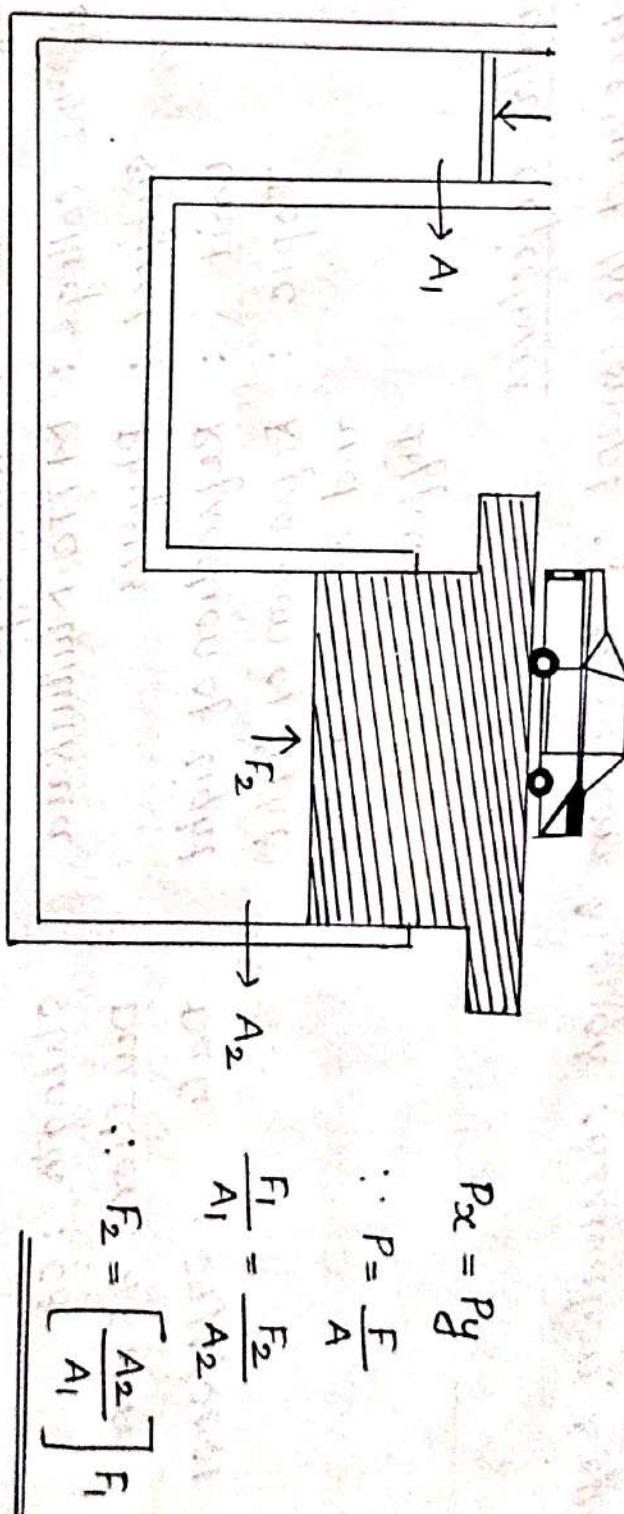
- With 3 variables, the unknown 4th variable can be find out.

XIII Follow up Activities

- Find out more examples related to pascal's law in daily life.

XII Blackboard Summary

Pascal's Law



XIII Reflection

Some learners cannot understand how area of contact play a crucial role in effect of force.

MAHAJUBILEE TRAINING COLLEGE

MULLOORKARA - THRISSUR (DT.) Pin: 680 583



EDU 403:1

SUPW & WORKING WITH COMMUNITY

Year ..2020....2022.....

SemesterIV.....

NameAkhila....Abhitha....George.....

Reg.No.M.T.A.U.T.E.G.D.O.I.....

Optional SubjectEnglish.....

Anaylu
FACULTY MEMBER

Date.....21-3-22.....

PRINCIPAL

Date.....21-3-22.....

INDEX

1. INTRODUCTION

As a part of B.Ed curriculum, EDU 403:1 associating with community, we have to produce some socially useful products from waste materials. socially useful productive work is a purposive productive work and services related to the needs of the child and the community, which will be proved meaningful to the learner. Such work must not be performed mechanically but must include planning, analysis and detailed preparation, at every stage so that it is educational in essence. Adoption of improved tools and materials where available and the adoption of modern technique will lead to an appreciation of the needs of a progressive society based on technology. Students learn to work as a team and to work with skill. SUPW emphasizes the promotion of culture and creativity in school children, SUPW curriculum may also include pottery, clay modelling, papier- rangoli, wall decoration,

2. NEED AND SIGNIFICANCE

The present system of education is still predominantly bookish in character and generally irrelevant to the needs of the society. Gandhiji was against education leading to the search for white-collared jobs. He was of the opinion that if education is based on socially useful productive work, it could be an instrument for personality-development and social transformation. socially useful productive work aims at developing harmonious development of the whole man in his body, mind, heart and spirit.

It bridges the gap between the life, and education, education and work. It makes learning effective and useful. It correlates knowledge with craft and theory with practice. It may help to increase national productivity and to proper articulation between life and education. It enriches the personality to the child and helps him to develop his creative facilities and diverse abilities.

3. LEARNING OUTCOME

- Acquire the requisite competencies in planning and executing socially useful programmes.
- Develop social sensitivity and consciousness and their human sensibilities.
- Seek co-operation and support from local people
- Develop dignity of labour
- Produce products which is useful to society.
- Cleans the promises of college and their own house in future
- Aims to help among the students the habit to work as a community, encourage community thinking
- Help students to solve day to day problems with the community.

4. FOUR ITEMS PREPARED FOR SUPN

(i) Paper Weight

Materials required

- Talcum powder for moulding clay
- Mud ehirat (A traditional lamp)
- Mould it (Fevicyrl clay) for making clay
- Black acrylic paint for painting the tortoise
- Carboard for flattening the clay
- Painting brushes for flattening
- Points to draw hexagons on its shell
- Glittering powder for a beautiful appearance
- Fabric glue for sticking it.

Method

We had sat optionwise for starting the work, they had already given us all the materials for making products such as paperweight and all. Teacher gave