INDEX

Activity-01

Plan and Construct an Achievement Test

Construction of a Good Achievement test

The construction of an objective based test can be divided into the following steps.

1. Planning the test
2. Preparing the blue print
3. Designing questions and editing the question paper.
4. Administering the test
5. Scoring the test
6. Evaluating the test

(1) Planning the test :

The first step in measuring achievement is to establish a clear statement of objectives. After stating the objectives, the teacher is ready to proceed with construction of a test to measure achievement of these objectives. The teacher while planning the test will bear in mind the following aspects :

a. Weightage to objectives which means selection of objectives and allotting marks to each.
b. Weightage to different areas of content.
c. Weightage to different forms of questions (i.e essay type, short answer, objective type)
d. Scheme of options.
e. Sections in the achievement test.

(2). Preparing the Blueprint:

The design of the achievement test is given by means of a three dimensional table of specifications in the form of a blueprint. A blueprint is essentially a three-way grid, with the content spread along the vertical axis and the objectives to be tested along the horizontal axis. The three dimensional chart covers the following

a. Objectives to be tested.
b. Subject matter to be covered.
c. The form of questions.

Objective	Knowledge			Understanding			Application			Skill			Total
Forms of Qns.	E	S	O	E	S	O	E	S	O	E	S	O	
Sub Unit 1	0	2(2)	1(2)										6
Sub Unit 2				5(1)	2(1)			2(1)		1(1)			10
Sub Unit 3				5(1)	2(1)						2(1)		9
Total	0	4	2				0	2	0	1	2	0	25

Note: Figures within the brackets indicates the number of questions and figures outside the brackets indicates marks.

(3) Designing questions:

The next step is to design questions on the basis of the

blueprint. It necessitates the following.

a. Defining the objectives
b. changing the objectives to specifications
c. complete knowledge of the subject matter,

(4) Editing the question paper :

This step consists of the following measures.

1. Assembling the questions on the basis of their form e.g.
   Section A - objective type
   Section B - short Answer
   Section C - Essay Type
2. Instructions to the students : General instructions may be given at the begining of a question paper.
3. Implications to teachers : This facilitates objective testing and scoring.

(5) Administering the test :

The key operation in the measurement of achievement with the test is the actual use of the instrument by students. Poor planning of administrative process can lead to spurious result. This involves predetermining among other things, time of testing, place of testing and giving of instructions.

(6) Scoring key and marking scheme :

A scoring key is prepared for the objective questions, and a marking scheme is made for the essay and short questions. A marking scheme is essential as it indicates.

a. The number of points or steps expected in the answer.
b. The outline of each point or step expected in the answer.
c. The weightage to each of these points or steps.

(7) Standardizing the test :

In evaluating a test, a few questions need to be asked If the scores are extremly high, It may assume that the test was too easy for the class. If the scores seem very low, the test was probably too difficult. It is advisable the question paper before it goes for printing. A review of the question paper necessitates three steps :

a. Question wise analysis (before the test)
b. Critical evaluation of the test (before the test)
c. Item analysis (after the test)

Question wise analysis - helps to know the strength and weakness of the test; to tally the question paper and the blueprint; and to determine the content validity of the test.

Each question is analyzed according to objective, specification, topic, question type and form estimated difficulty level, time needed, and marks allotted.

Critical Evaluation of the test helps weed out any duplication, spelling mistake, ambiguities that may exist in the paper. A qualitative and quantitative assessment of the test should be done.

Item analysis enables the teacher to evaluate the effectiveness of the test items. It helps in determining, the difficulty value of each item; the descriminating power of each item; and the effectiveness of distracters in the given item.

Model Achievement test construction in physical Science

Physical Science

Name of the Teacher : B Venteswarlu
Name of the School : Govt (Boys) High School Cumbum
Standard : VII (B)

Date :

Mark : 50

Time : 2hrs

PART - A

1x20 = 20

I. Choose the correct Answer.

1. Mechanics is a branch of
(a) Chemistry b) Physics c) Electronics d) Statics

2. In natural equilibrium the corner of gravity is
(a) Lowered b) Raised c) Lowered & raised (d) Neither raised nor lowerd

3. An example for an simple machine
(a) Generator b) Reactor c) Diesel engine d) Pulleys

4. In simple machines the mechanical advantage is equal to
(a) Load x power b) Power/load c) Load/power d) None of the above

(5) An example for second order lever is
(a) A pair of scissors (b) wheel barrow c) See-saw d) Forceps

6. In which Doll is titled, it goes to its initial position
(a) Barbie doll b) Agra Doll c) Thanjawur Doll d) None of the above

7. A person is able to lift a stone of 200Kg. wt by applying a force of 10Kg. wt the mechanical advantage is
(a) 200 b) 10 c) 20 d) 2000

8. An example for third order lever is
(a) See-saw b) Bottle opener c) Wheel borrow d) forceps

9. ..... can be reduced by using ball bearings
(a) Surface tension b) friction c) Gravity d) ferce

10. In a single movable pulleys the mechanical advantage is equal to
(a) 1 (b) 3 c) 2 d) 4

II. Fill in the blanks.

11. ..... deals with the study of motion of bodies.

12. The ratio of the mechanical advantage to the velocity ratio is called .....

13. The position of centre of gravity of a body determine the ..... of the body.

14. Polishing and Smoothening of rough Surface reduce .....

15. Staircases and Ghat roads are based on the principle of .....

III Match the following.

16. A funnel with his base on a table - reduce the friction

17. Load x load arm — 1/h
18. Pulley — stable equilibrium
19. Mechanical Advantage — changes the direction of force
20. Lubricant — power x power arm

PART - B

V Answer the following 2×10 = 20

1. Define centre of gravity
2. Why do racing cars are low and their wheels apart?
3. Define efficiency of a single lesson machine?
4. Give new examples of inclined plane?
5. where are ball bearing used?
6. what is simple machine?
7. Mention two disadvantages of friction you noticed from your surround?
8. State the law of levers?
9. Why do we use ball bearing in wheels
10. Find out two factors that affecting friction?

PART - C

2×5 = 10

VI Answer in details.

1. Explain the method to determine the centre of gravity of an irregular lamina with neat diagram.
2. Explain various types of leavers with examples.

Achievement test Blue print

I. Weightage to objectives

S.NO	objectives	Marks	Percentage
1.	Knowledge	6	12
2.	Understanding	17	34
3.	Application	22	44
4.	Skill	5	10
	Total	50	100

Activity - 02

Assessment Practices followed in different School

Types of Assessment

Defining Assessment:

Assessment can be defined as the systematic collection, interpretation and use of information about learning. It gives teachers a better awarness of what pupils know and understand, what their learning experiences enable them to do and what their skills and personal capabilities are.

Principles of Assessment:

The five principles that underpin quality assessment practice specify it should:

- be complementary to and supportive of learning;
- be valid and reliable;
- be fit for purpose and manageable;
- support teachers professional judgement; and
- support accountability

Types of Assessment:

A Range of assessment approaches can be used for different reasons at various stages in the learning sequence.

- Formative assessment - is a range of formal and informal assessment procedures used by teachers:

during the learning process so they can modify teaching and learning activities to improve pupil attainment.

Summative assessment :- comes at the end of a learning sequence and is used to acknowledge, record and report on pupil's overall achievement at a given point.

Diagnostic assessment - is used to identify individual strengths, areas for improvement and to inform next steps.

Evaluative assessment - is concerned with the overarching performance of arrangement in a department, school or system.

Formative approaches to assessment focus on improving learning while summative assessment captures a record of learning at the of a period of study. However, formative and summative assessments are not in opposition; they are interrelated and complementary. The information from formative assessment, supplemented by class tests or tasks, helps to ensure dependable summative assessment.

The quality of assesement is based on the teacher's professional ability to use a range of assessment methods that produce accurate results. good assessment practice involves teachers applying the five principles to every assessment approach they choose.

Purpose of Assessment

Assessment is central to succeful teaching and learning. To determine the effectiveness of a sequence of instruction; teachers need to gauge pupil's progress in understanding what they want them to learn. Assessment is the link between teaching and learning. It is important because without it there no way to anticipate what pupils will actually take from their classroom experiences and this might be quite different from what was intended. Assessment helps teachers find out what has actually taken place in pupils' developing understanding during a sequence of teaching and learning.

Teachers may use a range of strategies that can provide information about pupils' progress, including:

- Teacher observation of pupils engaging in classroom activities;
- Teacher observation of pupils' performances;
- Teacher checking of pupil work;
- pupils checking each other's work and similar forms of peer assessment;
- Questioning to check for understanding;
- End of topic tests;
- Exams; and
- other tasks, projects and assignments.

Curriculum, Assessment, and Accountability in day Treatment and Residential Schools

This study determined school-level curricular, assessment, and accountability policies and practices in private and public day treatment and residential schools for elementary-age children with emotional or behavioral disorders (E/BD). A national random sample of 271 (56.45%) principals and 229 (47.70%) teachers responded to a mail survey. No significant differences existed between teacher and principal reports of school-level curricular, assessment, and accountability policies. However, several statistically significant differences existed in school policies for schools that served students from a single district and those that served students from across a single state or more than one state. Across all schools, teachers and principals indicated a prescribed school curriculum was common. District and state standards and Student Individualized education programs (IEPs) were used to receive information on curriculum of local schools. Approximately two-thirds of all of the schools administered and state assessments and most schools used their state's accommodations guidlines. Assessment results were frequently reported to parents teachers, and used to adjust instruction and curriculum. Implications and suggestions for future research are provided.

Activity - 03

Question paper Analysis of two School Subjects

Rajiv Vidya mission (SSA) A.P

Summative Assessment Test model paper

Time : 2 ½ hrs

Name : .....

Class : VII

Roll NO : .....

Subject : General Science

Academic Standards	A.S.1	A.S.2	A.S.3	A.S.4	A.S.5	A.S.6	A.S.7	Overall Grades
No. of Questions	5	3	2	2	2	3	3	
Grades								

I. Conceptual Understanding :

1. Make a list of food items that contain all compound of food. ?
2. In what way is knitting different form weaving ?
3. While constructing a house, where do we construct ventilators ? why ?
4. write the examples of multiple image formed in your daily life ?
5. Math the following :

(i)	cell	( )	a) Used to open or close a circuit
(ii)	switch	( )	b) safety device used in electric circuit
(iii)	circuit electric current	( )	c) A complete path for the flow of
(iv)	fuse	( )	d) Advice which converts CE in to EE

II. Asking Questions and Making Hypothesis

6. What aspects should you observe to know and predict the weather of your village?
7. Interview eye witness to collect the actual experiences of people affected by a cyclone?
8. Do you agree with van Helmont? If nutrients absorbed by plants from soil is equal to the mass of plant/tree what will happen? think and write your hypothesis?

II. Experimentation and field Investigation

9. Describe the experiment conducted in the class room for the preparation of natural indicators with flowers.
10. Write components of your observation about the Experiment to prove the expansion of air on heating?

IV. Information Skills and projects

11. Distances travelled by a car different instances of time are given in the following table.

Time in minutes	Distance travelled
0	0 Km
10	15 Km
20	25 Km
30	88 Km
40	60 Km

i) what is the total distance travelled by a car ?
ii) what is the total time taken by the car for the journey ?
iii) Is the velocity of the car uniform throughout the journey ?
iv) In which instances of the time did the car travelled larger distances ?
v) what is the distance travelled by the car in first 10 minutes ?

12. write you observations about the usage of electricity based on details of meter readings collected by you from your friend's house ?

V. Communication through drawing and model making

13. Draw the diagram of life cycle of silk worm and name all stages.
14. Draw the electric circuit diagram consisting of a cell bulb and an electric switch.

VI. Appreciation and aesthetic sense and values

15. Prathima said Heat is a form of energy. How do you support her ?
16. How will you help your neighbors in case cyclone approaches your village ?
17. Army people can see their enemies while hiding themselves with the help of periscopes. How do you appreciate the use of periscope for their security ?

VII. Application to daily life and concern to bio-diversity

18. Geethika said, the whole world seems as stopped if there is no electricity. write the reason for her thinking.

19. Imagine that all the houses in your street have elevation with mirrors. Is it difficult for birds to live or fly in that street? why?

20. How can you say saprophytes help us in keeping the environment clean.?

(a) Name the smallest district in Andhra pradesh.

(b) On which direction of Andhra pradesh is Bay of Bengal situated?

(c) How many states are bordering with Andhra pradesh.

(d) which districts are sharing boundaries with your district?

21. Draw a sketch of your village and locate your school in it.

Analysis

1. This is the question paper for class VII for social students given by Rajiv vidya mission.

2. This is a summative assessment.

3. This test paper is made to test the academic standards conceptual understanding Reading and interpreting. The test information skills Responding on social and current issues and questioning Mapping and picture abilities, Appreciation & sensitivity.

Activity - 04

Intelligence test on Students

Math Intelligence Test

Questions and Answers.

1. what is the radius when diameter is 10 ?

A. 50
B. 75
C. 5
D. 10

2. What is the diameter when radius is 20 ?

A. 35 C. 15
B. 40 d. 1

3. Diameter is 10 what is the area of a circle ? Pie= 22/7 ?

A. 58.77 C. 22.00
B. 78.57 d. 19

4. Find the Perimeter of square when - l = 6

A. 44 C. 24
B. 23 d. 104

5. Find area of a square when l = 14

A. 196 C. 298
B. 198 d. 200

6. what is the volume of a cylinder when r = 15, h = 21 ? Pie = 22/7

A) 14851
B) 13851
C) 14850
d) 3444

7. Find area of a rectangle when w = 10 ; h = 400.
   A. 4020
   B. 3021
   C. 4000
   D. 5550
8. Find the Perimeter of rectangle ? when w = 23 and h = 32.
   A. 101
   B. 65
   C. 54
   D. 110
9. Find the perimeter of triangle ? when 1 = 25, w = 37, 5, h = 37.5 ?
   A. 100.1
   B. 99.94
   C. 100.00
   D. 99
10. Find the area of a parrellalogram when its h = 27.6 and l = 37.5 ?
   A. 10.35
   B. 1035
   C. 1005
   D. 2006
11. what is the area of triangle ? when b = 2000, h = 10
   A. 2010
   B. 4020
   C. 1005
   D. 4000
12. what is the perimeter and circumference of circle when r = 84
   A. 528
   B. 825

General Science Intelligence Test

Biology

Q.1. what is the ph value of human blood ?

(a) 40
(b) 7
(c) 0
(d) 8

Ans- a

Q.2. The rarest blood group is ___.

(a) negative
(b) B. negative
(c) AB negative
(d) AB positive

Ans- d

Q.3. The metal present in the haemoglobin is ___.

(a) copper
(b) calcium
(c) iron
(d) Aluminium

Ans- c

Q.4. 'Age of fishes was known as ___.

(a) Devonian
(b) ordovician
(c) crustaceous
(d) Silurian

Ans- a

Q.5. The metal present in the chlorophyll is ___.

(a) calcium (b) Aluminium (c) zinc (d) magnesium

Ans- d

6. The important sugar in honey is ——
(a) Lactose (c) Maltose
(b) fructose (d) Sucrose.
Ans - b

7. The number of chromosome in the human gene is ——.
(a) 23 (c) 46
(b) 48 (d) 24
Ans - 46 (c)

8. Viticulture is related with ——.
(a) Grapes (c) orange
(b) pine Apple (d) strawberry
Ans - a

9. which of the following acid present in vinegar?
(a) citric acid (c) oxalic Acid
(b) Acetic acid (d) Malic Acid
Ans - b

10. The longest and largest bone in the human body is ——.
(a) Spinal cord (c) fibula
(b) Humerus (d) femur
Ans - Femur (d)

Physics General Qs

11. which of the following measurements is not a unit of distance?
(a) Ammeter (c) Parsec
(b) cubit (d) Angstrom
Ans - (a)

12. Which one of the following remains while throwing a ball upward ?

(a) Displacement (c) Acceleration

(b) Kinetic energy (d) velocity

Ans- c

13. Pure water freezes at what temperature ?

(a) 47 F (c) 0 F

(b) 32 F (d) 19 F

Ans- b

14. Which vitamin is abundant in citrus fruit ?

(a) vitamin A (c) vitamin c

(b) Vitamin B (d) vitamin d

Ans-

GK Questions

1. When Jyotiba phule was died ?

A- 28 November

2. which princely state resembled 'Ramarajye' according to Gandhi. ?

A- Mysor

3. Who among the following was propounder of the madhyamika philosophy ?

A- Nagarjuna

A. who called Sree Narayana Guru as the second Buddha ?

A- G. Sankara Kurup.

5. Who started the Sharada Sadan in Bombay?
Ans- Ramabai saraswati.
6. The place Dharanikota in south India is related to which ancient dynasty?
A- Satavahana.
7. The title 'punjab Kesari' was conferred on
A- Lala Lajpat Rai
8. Indian constitution was amended for the first time in
A- 1951
9. Tripitakas are sacred books of
A- Buddhists.
10. During the freedom struggle, Aruna, Aruna Asaf Ali was a major women organizer of under ground activity in.
A- Quit India movement.
11. What metals were known to the people of Indus valley civilization?
A- copper, bronze, silver, gold but not iron
12. who was the founder of yoga philosophy?
A- Patanjali.
13. During whose reign mahayana sect of buddism came into existence?
A. Kaniska
14. What symbol represents nirvana of Gautama Buddha?
A. Bodhi Tree.
15. At which age Gautam Buddha got Nirvana?
A- 35

16. Taxila was the capital of which ancient mahajanapada ?
A- Gandhar.
17. In the Maurya empire, who was the Superintendent of ports ?
A- Karmantika.
18. The vedic deity Indra was the Godless of
A- Rain and thunder
19. The first session of Indian National congress was held under the presidentship of ?
A- W.C. Banerjee.
20. "Vanar sena" which participated in freedom struggle of India was led by ?
A- Indira Gandhi.
21. At which place did the british goverment arrest Gandhiji for sedition for the first time ?
A- Ahmedabad.
22. Who was the first women goveror of an Indian state?
A - Sarojini Naidu.
23. Which of the following is not correctly matched.?
A- M.F. Hussain- Tabla.
24. The concept of 'din-e- Elahi' was founded by which King ?
A- Akbar.
25. Who was the first Indian lady to preside over the congress?
A- Annie Besant.
26. Who wrote the book 'India wins freedom' ?
A- Maulana 'Abul Kalam Azad.

Activity - 05

Survey to find out occupational choices of 9th Class Students

Educational Interest Record (EIR)

EIR was first developed in the year 1965 which was thoroughly revised in 1970, 1975 and 1978 by the author. This Record has been consistently in use in various research studies, Research projects and also proved easy and beneficial for the student of testing - particularly at graduate and post-graduate levels of many university in psychology and education subjects. Guidance workers have also used it and found it useful as a screening device for finding out the educational interests of their clients.

Purpose

Educational interests are defined as one's own pattern of preferences, likes and dislikes preferred in any manner, wisely or unwisely by self or by any other source for a given educational area or subject. Therefore the purpose of present record is to aid students to adjust themselves to their education by making wise choices of the subjects of study. only by making a right choice will each child be able to utilize his educational potentialities to the maximum possible extent.

This record has been successfully used for more than a decade and found suitable at delta

and higher Secondary level. Many research workers later found it also very important and useful for college students and young adults out of schools and colleges.

Description of the EIR

The present Record contains 48 educational subject/activities belonging to seven different educational interest areas. They are-

(1) Agriculture (AG)

The Agriculture interest area include the activities and subjects like Animal Husbandry, Farming, Study of Manures, fruit Preservation, Dairying, Agriculture Extension, Reforms in villages, veterinary Sciences, Rural Sociology, Agricultural Botany etc.

(2) Commerce (CO)

commerce area has been covered through element of commerce Trasport Principles, Typing, commercial Mathematics, Business correspondence, Shorthand, Accountancy, Banking, Shop Management insurance, and foreign Trade etc.

3. Fine Arts (FA)

Fine Arts area of interests is represented by the subjects / activities like Sculptures, Music,

Songs, Toy making, wood craft, Art, Drawing and Painting, Art of Decoration, Dances etc.

(4) Home Science (HS)

Home science area is covered through the subject of General Home Science, Preparation of Home Budget Hygiene, cooking, Home management, Home decoration sewing, Embroidery, Knitting, child care, and musical dance etc.

(5) Humanities (HU)

Humanities area of interest is represented the subjects like Hindi, Logic, History, Geography, Economics, English Literature, Anthropology, philosophy, sociology, Education, Psychology and civics etc.

(6) Science (SC)

Science area includes the subjects like chemistry, physics, Zoology, Botany, Geology, meteorology, Science of Atoms, Mathematics, Surgery, Science of Health, physiology, General Science etc.

(7) Technology (TE)

Technology field of interest is represented by the subject/activities like fitters job, Electric, Mechanical & civil Engineering. welding Engineering Drawing, Radio/TV Engineering, Applied Mathe-

matics, Indian - Technology, General Technology, Science of metals etc.

Thus each of these educational areas (based on School Faculties System) has fourteen subjects on the record, seven on horizontal and seven on vertical side.

Administration

It is a self-administering record and may be administered individually as well as in group. The instructions with examples are given on the front page of the record as follows.

Norms And Interpretation

Scores can be interpreted in two ways quantitatively and qualitatively.

The interest scores can be presented in hierarchical order through the profile (given on the last page of the record) and thus main education interest area, second interest area, third interest area and the least interest area may be understood by counting the frequencies of each education interest area. Percentage for each interest area can also be calculated. This is a qualitative interpretation of the scores.

The order quantitatives method of interpretation is on the basis of classification based on the revised norms as follows.

Classification	Scores
High interest	10 - 14
Above average interest	6 - 9
Average Interest	4 - 5
Below average Interest	2 - 3
Low Interest	0 - 1

A survey to find out occupational chorces of 9th class students.

Name of the Student	Educational choices		occupational chorces	
	Interest	Aspiration	Interest	Aspiration
1. N. Venkateswara Reddy	physics	M.Sc phy	physics	Lecturar
2. P. Siva Ram	Engineer	B. Tech	Math	Engineer
3. K. Swetha	science	Degree	Agriculture	Scientist
4. N. Madhava Reddy	Science	M.B.B.S.	MBBS	Doctor
5. Ch. Raghu	commerce	M. com.	Acclountant	C.A
6. P. Lalitha	Painting	fine Arts	fine Arts	Paintier
7. M. Manisha	Home science	M.Sc	M.Sc	Musical dancer
8. N. Manjula	chemistry	B. Tech.	chemist	Scientist
9. K. Kasi Rao	zoology	M.Sc	zoology	Teacher
10. P. chinna Rao	Botany	T.T.C	Botany	Teacher
11. B. Sneha Latha	Math	M. Tech	Maths	civil Engineer
12. N. Sai	Physics	B. Tech.	physics	Software
13. S. Ameeswari	Physics	M. Tech.	physics	T.V Engineering
14. D. Rajeswari	Telugu	Degree	Telugu	Teacher
15. N. Raju	Arts	B.L	Arts.	Lawer