

Final Lesson Plan :-

School: Henry Demizio H.S. Academy

Subject: Physical Science

Class: VIII

No of Students present:

Topic : Metal and Non-metal

Time: 45 minutes

Day's Lesson: Metal and non-metal

Teacher's name : Madhwima Deb

:- General Objectives :-

1. To arouse interest for Physical Science among students.
 2. To develop reasoning and thinking ability among students.
 3. To promote scientific attitude among students.
 4. To develop appreciation for scientific literature.
 5. To prepare students for the future in the light of past and present.

→: Behavioural Objectives : →

1. Students will discuss concept of metals.
 2. Students will explain concept of non-metals.
 3. Students will learn physical properties of metals and non-metals.
 4. Students will identify chemical properties of metals and non-metals.
 5. Students will recognise uses of metals and non-metals.

-: Teaching Aids :-

Description	Context to use
i) Chalk, duster, pointer, and writing board	will be used during presentation.
ii) Chart	Characteristics of metals.
iii) Line model	To show metals and non-metals

-: Major Instructional Material :-

1. Concept of metals.
2. Concept of non-metals.
3. Physical properties of metals and non-metals.
4. Chemical properties of metals and non-metals.
5. Uses of metals and non-metals.

-: Preparation :-

1. What is car made up of?
2. What kind of material is iron?
3. What is pencil made up of?
1. What kind of material is graphite?

-: Announcement :-

Today we will discuss on the topic of 'Metals and non-metals'

:- Presentation :-

Learning Items	Teachers behaviour	learners behaviour	learning outcome
(i) Concept of metals:-			
	1. What are metals? Materials that are hard, shiny, good conductor of heat, malleable, etc. are called metals.		Students have understood concept of metals.
	2. Give some examples of metals.	Copper, iron, aluminium, magnesium etc.	
(ii) Concept of non-metals:-	3. What are non-metals?	Materials that are not hard, dull in appearance, bad conductor of electricity are called non-metals.	Students have learnt concept of non-metals.
	4. Give examples of non-metals.	Sulphur, Oxygen, Carbon di Oxide etc.	
(iii) Physical characteristics of metals and non-metals:-			
a. Malleability:	5. What is malleability?	The property of metals by which they can be beaten into thin sheets is called malleability.	
	6. Which materials show the property of malleability?	Metals.	

Learning Items	Teachers behaviour	learners behaviour	learning outcome
b. Ductility:	7. What is ductility?	The property of metals by which they can be drawn into wire are called ductility.	Students have understood Physical properties of metals
	8. Give few examples of metals who are used for ductility.	Aluminium, copper are used to make wires.	
c. Sonorous:	9. What is meant by Sonorous?	Materials that produce sound on beating are called sonorous.	and non-metals.
	10. Which kind of materials are sonorous in nature?	No material other than metals are sonorous.	
	11. Using which property do we, ring bells?	Sonorous.	
d. Hardness:	12. Which materials are hard in nature?	Metals.	
	13. Which metal is liquid in room temperature?	Mercury.	

Learning Items	Teachers behaviour	Learners behaviour	Learning Outcome
(iv) Chemical properties of metals and non-metals :-			
a. Reaction with Oxygen :	14. What do metals produce reacting with oxygen? 15. Whose oxides are basic in nature? Metals. 16. Whose oxides are acidic in nature? Non-metallic oxides.	Metallic Oxide. Metals. Non-metallic oxides.	Students have learnt chemical properties of metals and non-metals.
	17. Name metals that do not react with oxygen at high temperature.	Silver and gold.	
b. Reaction with water:	18. What is produced when metals react with H_2O ?	Hydroxides, Oxides and hydrogen gas.	
	19. How do non-metals react with H_2O ?	Generally non-metals do not react with H_2O .	
C. Reaction with acids and bases:	20. How metals react with acids?	Metals produce salts and hydrogen.	

Learning Items	Teachers behaviour	Learners behaviour	Learning outcome
21. How non-metals react with acids?		Generally non-metals do not react with acids.	
22. How does metals react with bases?		Metals generally don't react with bases.	
23. Name some metals that do react with base.		Aluminium, lead, Zinc etc.	
(V) Uses of metals and non-metals:-			
24. Which materials are used in making purple coloured solution which is used in wounds?		Non-metals.	Students have understood uses of metals and non-metals.
25. Which materials are used to make crackers?		Non-metals.	
26. Which materials are used in making automobile?		Metals.	

-: Use of writing board :-

Writing board will be used to write theories, example for better understanding of students.

-: Application :—

1. Explain how metals react with acids and bases?
2. What is ductility? Give example of some metals that possess ductility.
3. How metals react with H_2O ?
4. Write uses of metals.
5. Write physical characteristics of metals.

-: Assignment : -

1. Write difference between metals and non-metals.

-: Reference:-

S.Chand's book of Science,

By - S.chand

~~Examined~~

~~29/1/2021~~

"abita

Surf
29/1/22

FINAL LESSON PLAN

School-Hemant Deorio Academy
Class- VII
No. of the Students Present - 12
Time- 40 min
Date- 29/11/2022
Teacher's Name- Savanista Patil

Sub- Science
General Sub- Life Science
Topic- Reproduction in Plants
Lesson Unit
Unit-1 Vegetative Propagation in Plants
Unit-2 Asexual Reproduction of Plants
Unit-3 Sexual Reproduction in Plants
Day's Lesson- Vegetative Propagation in Plants (unit-1)

General objectives

- ① To arouse interest among students for life Science.
- ② To develop thinking, reasoning and solving power of students.
- ③ To develop appreciation of scientific literature among the students.
- ④ To develop appreciation of scientific attitude among the students.
- ⑤ To prepare the students for the future in the light of the past and present.

Behavioural objectives

- ① Students will explain about the concept of reproduction in plants.
- ② Students will discuss about the modes of reproduction in plants.
- ③ Students will recognize about the vegetative propagation of plants.
- ④ Students will solve about the natural vegetative propagation of plants.
- ⑤ Students will discuss about the advantage and disadvantage of vegetative propagation.

Teaching Aids

Description

- ① Black board, chalk, Duster and Pointer.
- ② Chart- Different vegetative parts of plant.

Context of use

- (1) Will be used when required for writing.
- (2) It will be used to generate the concept regarding class.

Major instructional Material

- ① Concept of Reproduction in Plants
- ② Modes of Reproduction in Plants
- ③ Vegetative Propagation of Plants
- ④ Natural vegetative Propagation of Plant
- ⑤ Advantage and Disadvantage of vegetative propagation.

Preparation

- ① What fruits do you eat?
- ② What is inside the fruit?
- ③ After eating the fruit, if seeds are dropped, what happens when the seed germinates?

- ④ What will happen if a branch of rose or marigold is cut and buried this in the ground?
 ⑤ In this way, what is the process by which a seed-less seedling and a plant from the branch of a tree is prepared is called?

Announcement

Today we will discuss on the topic 'Vegetative Propagation in Plant'.

Presentation

Learning items	Teacher's Behaviour	Learner's Behaviour	Learning outcome
① Concept of Reproduction in Plant:			
To Produce its kind is a characteristic of all living organisms.	① What is reproduction?	① The production of new individuals from their parents is known as Reproduction.	Students have learnt about the concept
The production of new individuals from their parents is known as reproduction. Plant reproduction is the creation of new plants by one or more parents.	② What is reproduction in plants?	② Plant reproduction is the creation of new plants by one or more Parent Plants.	of Reproduction
Plants, Most Plants have roots, Stems and leaves. These are called the vegetative parts of a plant. After a certain period of growth. Most plants bear flowers. We eat the fruits and usually discard the seeds. Seeds germinate and form new plants. Flowers perform the function of reproduction in plants. Flowers are the productive parts.	③ What are the different vegetative parts of plant?	③ Roots, Stems and leaves.	in plants
	④ What are the productive parts of plant?	④ Flowers.	
	⑤ How many types of reproduction in plants?	⑤ 3 types.	Students have learnt about the
	⑥ What are the 3 types of reproduction in plants?	⑥ vegetative propagation, Asexual reproduction, sexual reproduction.	Modes of Reproduction
② Modes of Reproduction in Plants:			
There are several ways by which Plants Produce their off Spring. These are categorised into three types - (i) vegetative Propagation (ii) Asexual Reproduction (iii) Sexual Reproduction. In asexual reproduction Plants can give rise to new plants without seeds, whereas in sexual reproduction new	⑦ What is vegetative propagation?	⑦ Reproduction is through the vegetative parts of the plant, it is known as vegetative propagation.	in Plant.

Learning items	Teacher's Behaviour	Learnings Behaviour	Learning outcome
Plants are obtained from seeds. In vegetative Propagation, new plants are obtained from roots, stems and leaves.	③ How many types of vegetative Propagation? What are they?	③ Vegetative Propagation are mainly two types - ① Natural vegetative Propagation ② Artificial vegetative Propagation.	Students have learnt about the vegetative propagation.
<u>Q? Plants:-</u> It is a type of asexual reproduction in which new plants are produced from roots, stems, leaves and buds. Since reproduction is through the vegetative parts of the plant, it is known as vegetative propagation. Vegetative Propagation are mainly two types (i) Natural vegetative propagation (ii) Artificial vegetative Propagation.	④ What are the organs of vegetative Propagation? ⑩ Which is grown by vegetative propagation by stem?	④ The Roots, stems, leaves and nodes. ⑩ Rose, Potato etc.	of Plants
<u>④ Natural vegetative Propagation of Plants:-</u> Natural vegetative Propagation are mainly three types (i) By roots (ii) By Stems (iii) By leaves	⑫ Which is grown by vegetative Propagation by leaves? ⑬ What is vegetative bud?	⑫ Bryophyllum. ⑬ A part from flower buds, there are buds in the axil of leaves which develop into shoots. These buds are called vegetative buds.	Students have learnt about the Natural vegetative Propagation of Plants.
curl a branch of rose or champa with a node. This piece of branch is termed a cutting. Bury the cutting in the soil. A node is a part of stem at which a leaf arises. Water the cutting every day. After a few days roots come out and new leaves arise. A part from flower buds there are buds in the axil of leaves which develop into shoots. These			

Learning items	Teacher's Behaviour	Learner's Behaviour	Learning outcome
buds are called vegetati- ve buds. A bud consists of a short stem around which immature overlapping leaves are present. Vegetative buds can also give rise to new plants. Potatoes, ginger, turm- eric etc are propagated thro- ugh the stem of plants in the process of vegetative propa- gation.	(1) Write the one advantage of vegetative propagation?	(1) Plant produced by vege- tative propagation take less time to grow and bear flowers and fruits earlier than those produ- ced from seeds.	Students have learnt about the natural vegetative propagation of plant.
Roots of some plants can also give rise to new plants. Sweet Potato and Dahlia are example. Bryophyllum has buds in the margins of leaves. If a leaf of this plant falls on a moist soil each bud can give rise to a new plant.			
<u>(2) Advantage and Disad- vantage of vegetative Propa- gation:-</u>	(5) Write the one disadvan- tage of vegetative propagation?	(5) Does not produce new variety.	Students have learnt about the Advantage and disadvan- tage of vegetative propagation.
Advantage of vegetative Propa- gation are:-			
(i) Plants produced by vegeta- tive propagation take less time to grow and bear flowers and fruits earlier than those produced from seeds.			
(ii) The new plants are exact copies of the parent plant as they are produced from a single parent.			
<u>(iii) Disadvantages of vegetati- ve reproduction are:-</u>			
(i) Does not produce new vari- ety.			
(ii) Leads to overcrowding around the parent plant. (iii) very little possibility of dispersal.			

USE OF Blackboard

Important term, facts of Reproduction of plant Modes of reproduction, and vegetative propagation will be written and drawn on the black board for better understanding of the students.

Application

- ① What is Reproduction in Plants?
- ② What is vegetative Reproduction?
- ③ What are the advantages of vegetative propagation?
- ④ What is vegetative bud?
- ⑤ What are the disadvantage of vegetative Propagation?

Assignment

- ① How do the plants like Sugarcane, Potato and Rose Reproduce when they cannot produce seed?

Reference

Lakhmir Singh's Science for class VII

By

Lakhmir Singh
Manjit Kaur

Examined
29/11/2022

Approved
29/11/22

final lesson plan

School - Henry David Academy Hl's School	Subject - Social Science
Standard - VIII	Area - Civics
Present -	Topic - Public facilities
Time - 40 minutes	Unit-I - Public facilities meaning & types
Date - 29/11/2022	Unit-II - Importance & Need of Public facilities
Teacher - Niha Majumder	Unit-III - Water as a part of fundamental Right
	Today's lesson - unit-I - Public facilities meaning and types

General Objectives

- ① To develop the scientific and social attitude among the students through the study of civics
- ② To generate civic sense among the students through the study of civics
- ③ To develop the sense of ideal citizenship among the students
- ④ To develop the sense of nationalism among the students
- ⑤ To enable the students to understand national and international relations

Behavioural Objective

- ① The students will discuss the meaning of Public facilities
- ② The students will identify the main objectives of Public facilities
- ③ The students will discuss the types of Public facilities
- ④ The students will discuss water as an important Public facility
- ⑤ The students will discuss Importance and need of Public facility

Teaching Aids

Description

Context of use

① Usual classroom aids - blackboard, Duster, Chalk, Pointer.

① These items will be used as required

② Specific aids - Picture to show types of facilities and a Model to demonstrate,

② Picture and Model will be shown and explained for better learning of the students

Major Instructional Materials

① Meaning of Public facilities

② Main objectives of Public facilities

③ Types of Public facilities

④ Water as an important public facility

⑤ Importance and need of Public Facility

Preparation

① What are the needs of a human being

② What do Transport and Hospitals provide us?

③ Who provides us these facilities?

④ What does the toilet in between the city known as?

⑤ If we sum up all the facilities provided to us. It is known as -

Announcement

So, Today we will discuss about meaning and types of Public facilities.

Presentation

Learning items	Teacher's Behavior	Learner's Behavior	Learning outcome
Meaning of public facilities - Public facilities are service provided by the government to its citizens without having basic need fulfills, a person cannot stay on earth, cannot live peacefully. Some of the important facilities includes health care facilities, transport facilities, infrastructure facilities, sanitation facilities etc. The important characteristics is that once it is provided, its benefit can be provided by many people e.g. a school in a village which enables many kids to get education.	① What are facilities? ② What are public facilities? ③ Who provide these facilities? ④ Name some of the Public facilities. ⑤ Write an example of sharing benefit of Public facilities.	① Anything that are provided for have learnt the needed demands the meaning of Public facilities. ② Facilities provided by the government ③ Government facilities ④ Health facilities, transport facilities ⑤ One school can provide education to all	The students have learnt the meaning of Public facilities
Main objectives of Public facilities - Public facilities are the facilities which are provided by the government to meet the basic needs of the people. The main objective is to provide these public facilities to citizens and business to manage social and economic activities more smoothly.	⑥ whom does the government provides these facilities? ⑦ what can be managed by the institution of Public facilities? ⑧ Why Public facilities are being provided?	⑥ Citizens ⑦ Social and economic activities ⑧ To meet the basic needs of the people	

Learning items	Teacher's Behaviour	Learner's Behaviour	Learning outcome
Types of Public facilities — Government provides many public facilities which in turn satisfy the basic needs of a human being. Some of them are — Infrastructure — It includes public roads, bridges, highways, dams and electricity in India.	⑨ Name some types of Public facilities.	⑩ Infrastructure The students have learnt the types of Public facilities.	The students have learnt — sanitation, health etc.
Sanitation — It is an important aspect of public facilities. It must be planned to create a cleaner environment. Major sanitation facilities are public toilets, hazardous waste management etc.	⑪ what does the Sanitation include?	⑫ Public toilets, waste management	
Public transport — Transportation is one of the main aspects of life. It includes railways and buses, airlines etc. However air connection is still a problem.	⑬ What comes under public transport?	⑭ Railways, buses etc.	The students have learnt this
Health care facilities — It includes hospitals, healthcare centres etc. It should be provided at a regular pace for better human lives.	⑮ What does the Health care include?	⑯ Hospitals, health centres	Water is an important public facility
water as an important public facility — first, water should be available in public water treatment facilities. The Canal should be constructed to make water available for agriculture use. The government should also purify the drinking water and treatment facilities to ensure that harmful particles are removed from industries.	⑰ What should be constructed to make water available for agriculture?	⑱ Canal	
			The students have learnt the importance and need of Public facilities

Use of BlackBoard

To write the name of the chapter and its units to elaborate the types of Public facilities

Application

- ① Define Public facilities
- ② Name some essential public facilities
- ③ Why water is considered as an important Public facility?
- ④ Write the role of transportation in our life.
- ⑤ Why do we need public facilities?

Assignment

- ① List some more public facilities and give examples.

Reference

① Social Science - Madhuban Publication

② Public Administration - M. Laxmi Kant

Examined

21/11/2022

*Sunita
21/11/22*

Final Lesson Plan

p. 1

School - Barjala H.S School
 Standard - VI
 Present - 11/12/22
 Time - 50 min
 Date - 06/12/22
 Teacher - Kanali Nath

Subject - English
 Area - Poem
 Topic - 'Desert Animals'
 Today's Lesson - 'Desert Animals'

General Objectives

- (i) To help the pupils to form their skill of listening, speaking, writing in English.
- (ii) To help the pupils enrich their vocabulary.
- (iii) To enable them to express orally and in writing what they will learn.
- (iv) To create the sense of affection towards English language.

Behavioural Objectives

- (i) The students will discuss the gist of the prose.
- (ii) The students will impart loud reading of the prose correctly.
- (iii) The students will write down the meaning of the words.
- (iv) The students will explain it about Desert.
- (v) The students will discuss about Gerbils.
- (vi) The students will explain about Desert animals.
- (vii) The students will answer the questions.

Teaching Aids

Description

- ARD*
- Sheet ad
- (i) Blackboard, duster, chalk, book.
 - (ii) Model and chart showing the lesson.
 - (iii) Pointer

Content of Use

- (i) Will be used during presentation and explanation of the lesson.
- (ii) Will be shown while discussing the lesson.
- (iii) Will be used to show content of chart and model.

Major Instructional Materials

- (i) Gist of the prose
- (ii) Word Reading
- (iii) Vocabulary
- (iv) Explanation
- (v) Question and Answer.

Preparation

To introduce the students to them towards the lessons, the following questions will be asked:-

- (i) Which animal can live without water?
- (ii) Which state lacks water?
- (iii) Which animal lives in the desert?
- (iv) Where can we see cactus?
- (v) Where is the desert in India?

Announcement

So today we will learn about the prose 'Desert Animals'

Presentation

Learning Items	Teacher's Behaviour	Learner's Behaviour	Learning Outcomes
<u>Gist of the Lesson</u>			
Desert is a place with no water means the desert is dry and the lesson regarding the gist of 'Desert Animals' is all about the prose.	The teacher will tell the students the lesson regarding the gist carefully.	The students will listen carefully the gist dictated by the teacher.	The students have learnt the gist of the prose.

Learning Items	Teacher's Behaviour	Learner's Behaviour	Learning Outcome
Different methods they use to adjust with its harsh life.			
<u>Loud Reading</u> Deserts are the driest ... dust cannot pierce through.	The teacher will impart All the students will follow the teacher to loud reading.	The students will follow the teacher to impart loud reading correctly.	
	The teacher will ask some of the students to impart loud reading, one by one.	The selected students will impart the loud reading one by one and rest of the students will follow them.	
<u>Vocabulary</u>			
<u>Wored Meaning</u>	Teacher will ask or help the students to find out meaning of words.	The students will answer and write down the meaning of words and	The students have learned the meaning of words and enriched their vocabulary.
1) Survive - Live			
2) Scorching - Very hot			
3) Pebbles - Stony			
4) Harmless - Non-violent			
5) Pithorous - Spiteful			
6) Forage - Search for food.			
7) Amusing - Enjoyable			
8) Swallow - Consume			
9) Suspicious → Questionable			
10) Moisture - Dampness			

Learning Items <u>Explanation</u>	Teacher's Behaviours	learner's Behaviour	Learning Outcomes
Desert Animals story will throw light on the life of desert animals. Moreover it explains how they use different unique ways for adapting to the harsh atmosphere.	The teacher will explain the selected portion of the lesson and ask questions to the students.	The students will listen to the teacher carefully and will answer and answer the following questions.	The students have understood and will answer the question.
In the deserts, It begins by telling us how deserts are the driest places on earth.	① Which are the driest places in the deserts?	* Deserts.	
to develop their capacity to adapt. For instance, gerbils spend the hottest part of the day in their underground burrows.	② For how long do the animals remain dry without rain?	* Sometimes for months or even years.	The students have learnt about the deserts.
Similarly, to get water in their mouth, the darkling beetles catch cool underground drops of moisture.	③ Which place remains at Desert.	* Gerbils.	
Moreover, the Rocky deserts of America have 'Rattle Snake'.	④ Who catches drops of moisture on their legs?	* Darkling beetles.	The students have explained about the Gerbils.
Another animal living in the desert is a mongoose. Further, there are camels who have long shaggy coats for keeping warm in	⑤ What is the minimum length of snake?	* 15 cm.	
	⑥ Most of the snakes are what?	* Harmless.	

Learning Items	Teacher's Behaviour	Learner's Behaviour	Learning Outcomes
winter and shorter. tidier coats in the summer for keeping heat. Further, it explains their ability to survive for many days without food and water.	(8) Who can kill a human being with just one bite?	* Poisonous snakes make	The student have under- stood about the rattlesnake.
There are two different kinds of camels in the mows?	(9) What is rattlesnake & Rattler? also called?		
desert 'the Dromedary' (10) Who has two humps? (It has only single hump) and 'Bactrian Camel' (It has two humps).	(10) Who cannot hear the rattles?	* Bactrian Camel * Through vibrations	The students have learnt about the
People usually think that camel's hump is a storage container and it stores water in it. But actually, humps are full of fat. This fat feeds the animal when they have nothing to eat. They can use this fat to fill their stomach for days.	(11) Who are voles? (12) How do rattlesnakes kill their prey?	* A small plant- eating rodents * With venom	Voles.
	(13) Who kills their prey with venom?	* Rattlesnake.	The students have under- stood about
	(14) Who like to hunt together?	* Mongoose.	desert animals.

To use of Blackboard
will be judiciously
for the following purpose

- (i) To write down word meaning — survive, searching,
harmless, amusing etc.
- (ii) To write down the questions and answers.

Application

- (1) How do darkling beetles catch drops of moisture?
- (2) How do snakes hear things?
- (3) How many different kinds of snake are there?
- (4) How do camels get moisture?
- (5) Why are deserts so thinly populated?

Home Assignment

- (1) Give one example how the desert animals survive in harsh conditions.

References

- (1) History of English literature
- (2) Oxford Dictionary.
- (3) <https://www.vedantu.com>.

Examined

06/12/2022

Learned
for
06/12/2022

ଅନ୍ତର୍ଭାବକାଳିତା

ଲିଙ୍ଗକୁଳ-ନାମ : ଶ୍ରୀଜନାଥ କୁମାର (କୁମାର) ଏବଂ କଣ୍ଠ କିମ୍ବା କଣ୍ଠକାଳି

ଦେଖିବାରୀ : 'ଆମୁମ'

ପରିଧି : 'ଯ'

ପରିଚୟି :

ବୟାସ : ୫୦ ଇମ୍ବିଲ୍

ଜର୍ଣ୍ଣିଧି : ୦୮.୦୨.୨୦୨୨

ଅନ୍ତର୍ଭାବକାଳିତା ନାମ : ଅନ୍ତର୍ଭାବକାଳି

ବିଷୟ : ହିତକାଳ

କର୍ତ୍ତାକାଳିତା : ଅନ୍ତର୍ଭାବକାଳି

ବିଷୟକାଳିତା : କର୍ତ୍ତାକାଳି, ବାହ୍ୟକାଳି କାମକାଳି ବା ଅନ୍ତର୍ଭାବକାଳି

ପରିଧି : 'କୁଳକାଳି' କିମ୍ବା 'କାମକାଳି' କାମକାଳି

ପରିଚୟ : 'କାମକାଳି' କାମକାଳି

ବିଷୟ : 'କାମକାଳି' କାମକାଳି, କାମକାଳି

କର୍ତ୍ତାକାଳିତା : 'କାମକାଳି' କାମକାଳି

ବିଷୟକାଳିତା : 'କାମକାଳି' କାମକାଳି

ଅନ୍ତର୍ଭାବକାଳିତା

୧. ହିତକାଳ କାମକାଳି କାମକାଳି - କାମକାଳି କାମକାଳି କାମକାଳି

୨. ହିତକାଳ କାମକାଳି କାମକାଳି - କାମକାଳି କାମକାଳି କାମକାଳି

୩. ହିତକାଳ କାମକାଳି କାମକାଳି - କାମକାଳି କାମକାଳି କାମକାଳି

୪. ହିତକାଳ କାମକାଳି କାମକାଳି - କାମକାଳି କାମକାଳି କାମକାଳି

୫. ହିତକାଳ କାମକାଳି କାମକାଳି - କାମକାଳି କାମକାଳି କାମକାଳି

ଅନ୍ତର୍ଭାବକାଳିତା

୧. କାମକାଳିର ଉତ୍ସାହ ଉତ୍ସାହ ଉତ୍ସାହ

୨. କାମକାଳିର ଉତ୍ସାହ ଉତ୍ସାହ ଉତ୍ସାହ

୩. କାମକାଳିର ଉତ୍ସାହ ଉତ୍ସାହ ଉତ୍ସାହ

୪. କାମକାଳିର ଉତ୍ସାହ ଉତ୍ସାହ ଉତ୍ସାହ

୫. କାମକାଳିର ଉତ୍ସାହ ଉତ୍ସାହ ଉତ୍ସାହ

ଅନ୍ତର୍ଭାବକାଳିତା

୧. ଅନ୍ତର୍ଭାବକାଳିତା

କାମକାଳ, କାମ, କାମକାଳ, କାମକାଳି

କାମକାଳ, କାମକାଳ, କାମକାଳି

୨. ଅନ୍ତର୍ଭାବକାଳିତା

କାମକାଳ, କାମକାଳ, କାମକାଳି

କାମକାଳ, କାମକାଳ, କାମକାଳି

୩. ଅନ୍ତର୍ଭାବକାଳିତା

୪. ଅନ୍ତର୍ଭାବକାଳିତା

୫. ଅନ୍ତର୍ଭାବକାଳିତା

୬. ଅନ୍ତର୍ଭାବକାଳିତା

କୁଳ-କାମକାଳିତା

୧. କୁଳକାଳ

୨. କୁଳକାଳ-କାମକାଳ

୩. କୁଳକାଳ-କାମକାଳ

୪. କୁଳକାଳ-କାମକାଳ

୫. କୁଳକାଳ-କାମକାଳ

ଓন্দোর

- ଅନ୍ଧାରା ପତ୍ରିଙ୍ଗ କଥା କେବେ ରୁଦ୍ଧ ହେଉ ଫୁଲାଣା କାହିଁ ?
 - ଅନ୍ଧାରା ପତ୍ରିଙ୍ଗର ଶିଖ କେବେ ?
 - ପତ୍ରିଙ୍ଗର ଉତ୍ତରାଂଶ୍ଚ କେବେ ?
 - ପତ୍ରିଙ୍ଗର କରମିଟି - ଯେତେ କଥା କହିବା ପାଇଁ କିମ୍ବା ?
 - ନୀଳାର୍ଥ, ବିନ୍ଦୁ, କାନ୍ଦି କେବେ କଥା କହିବା ?

ପ୍ରମାଣନ୍ଦିତ

ଶ୍ରୀମଦ୍ଭଗବତ

ବିଭାଗ-ବିଭାଗ-ର୍ତ୍ତୁ

- ⑥ लिंगार्थि अवाक् :-

Digitized by srujanika@gmail.com

③ Transfer

१८५३-१८५४

② សាខាកិច្ចការណ៍

ଶ୍ରୀମତୀ

- * ଅଭିନ୍ଦିତ ରେହାରୁଙ୍କ କ୍ଷେତ୍ରରେ -
 - * କଣ୍ଠରୁଙ୍କ ଅଭିନ୍ଦିତ ମୂଳ୍ୟ ଅଭିନ୍ଦିତ ରେହାରୁଙ୍କ କ୍ଷେତ୍ରରେ ?
 - * ରେହାରୁଙ୍କ କ୍ଷେତ୍ରରେ - → ଅଭିନ୍ଦିତ ରେହାରୁଙ୍କ କ୍ଷେତ୍ରରେ ଅଭିନ୍ଦିତ ରେହାରୁଙ୍କ କ୍ଷେତ୍ରରେ ଅଭିନ୍ଦିତ ରେହାରୁଙ୍କ କ୍ଷେତ୍ରରେ ଅଭିନ୍ଦିତ ରେହାରୁଙ୍କ କ୍ଷେତ୍ରରେ ?
 - * ରେହାରୁଙ୍କ କ୍ଷେତ୍ରରେ - → ଅଭିନ୍ଦିତ ରେହାରୁଙ୍କ କ୍ଷେତ୍ରରେ ଅଭିନ୍ଦିତ ରେହାରୁଙ୍କ କ୍ଷେତ୍ରରେ ?

② କାନ୍ଦିଲାର
ପାତାର ଜାମିହି-

କାନ୍ଦିବିରୁ ପାଇଲା
ଅଳ୍ପକିମ୍ବା ତାହା ।

ଶବ୍ଦମୂଳର

ଶବ୍ଦମୂଳ	ଶବ୍ଦମୂଳ	ଶବ୍ଦମୂଳ	ଶବ୍ଦମୂଳ
<p>କିମ୍ବନ-ବିଷୟବିମ୍ବନ- ପିଲ୍ଲାଗାତ କୁଣ୍ଡଳିମୁଦ ଲୁହାକୁଣ୍ଡ ଅସୀରିନ ଜୀବିତରେ ଅନୁକାଳ କାଳିରୁ କାଳରେ ଫଳକ କାଢ଼ି, କିନ୍ତୁ କୁର୍ବା-ପାତାରିକୁ ଅନ୍ତରୁ ପ୍ରେସ୍, ପିଲ୍ଲାଗାତିକୁଣ୍ଡ ଶୁଣିରିଛି ଅନ୍ତରୁକୁଣ୍ଡ ଲାଙ୍ଘାକୁଣ୍ଡ ଲାଙ୍ଘାକୁଣ୍ଡରେ ଏବୁରୁ ଆଚାରରେ ଅନୁକାଳ ପାତା, କିନ୍ତୁ କାଳରେ ପାତା ଅନ୍ତରୁକୁଣ୍ଡ ଅନ୍ତରୁକୁଣ୍ଡ</p>	<p>ଶବ୍ଦମୂଳ କାଳରେ କାଳରେ କାଳରେ ଅସୀରିନ ଲୁହାକୁଣ୍ଡ ଅସୀରିନ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ</p>	<p>ଶବ୍ଦମୂଳ କାଳରେ କାଳରେ କାଳରେ କାଳରେ</p>	<p>ଶବ୍ଦମୂଳ କାଳରେ କାଳରେ କାଳରେ କାଳରେ</p>

ଶବ୍ଦମୂଳ କାଳରେ

କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ
କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ
କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ
କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ
କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ
କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ
କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ କାଳରେ

ଶବ୍ଦମୂଳ

1. ପିଲ୍ଲାଗାତ କାଳରେ କାଳରେ କାଳରେ ?
2. ପିଲ୍ଲାଗାତ କାଳରେ କାଳରେ ? କାଳରେ ?
3. ପିଲ୍ଲାଗାତ କାଳରେ ? କାଳରେ ? କାଳରେ ? କାଳରେ ? କାଳରେ ?
4. ପିଲ୍ଲାଗାତ କାଳରେ ? କାଳରେ ? କାଳରେ ?

ବାକିତ୍ତର

1. ପିଲ୍ଲାଗାତ କାଳରେ ? କାଳରେ ? କାଳରେ ? କାଳରେ ?
2. କାଳରେ ? କାଳରେ ? କାଳରେ ? କାଳରେ ?

ଅନୁକାଳ

2020 ମେଘାଶମାତ୍ରାନ୍ତର ପରିପ୍ରକାଶନ (୨୦୨୦ 2020) S.C.E.R.T. ISBN No- 978-9-83-950954-

Page no - 72-73

ଅନୁକାଳ କାଳରେ ? କାଳରେ ? କାଳରେ ?

05/12/22

ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା - ୧

ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା - ଲତାମତ୍ତୁ ପ୍ରକଳ୍ପ ପାଇଁ -
ଶାଖାକ୍ଷେତ୍ର ପରୀକ୍ଷା
ପାଇଁ - ଆମ
ଅଧ୍ୟାତ୍ମ - ୩
ପ୍ରଦୀପିତା -
ଆମର - ୫୦ ମିନିଟ୍
ଡାକ୍ଟର - ୦୨-୩୨-୨୦୨୨
ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା - ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା

ବିଷୟ - ରାତର
ଅନୁଷ୍ଠାନିକ - ୩
ପରୀକ୍ଷାକ୍ଷେତ୍ର - ମହିଳାଙ୍କ-ମହିଲା
ପାଇଁ - "ମହିଳା ପାଇଁ ... ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା"
ପାଇଁ - "ମହିଳା ପାଇଁ ... ମହିଲା ପାଇଁ"
ପାଇଁ - "ମହିଳା ପାଇଁ ... ଜୟନ୍ତୀପାଇଁକାନ୍ତକାନ୍ତି"
ଅନୁଷ୍ଠାନିକ - ପାଇଁ - "ମହିଳା ପାଇଁ ...
ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା ମହିଲାଙ୍କ-ମହିଲାଙ୍କାଙ୍କ"

ଆମରଙ୍କ-ପରୀକ୍ଷା :-

୧. ବୃଦ୍ଧମାତୃତ୍ୱ ପାଇଁ ଆମରଙ୍କ ପରୀକ୍ଷା ପାଇଁ, ଅଧ୍ୟାତ୍ମ, ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା ପାଇଁ ଆମରଙ୍କ ପରୀକ୍ଷା,
୨. ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା ପାଇଁ ୩ ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା ପାଇଁ ବ୍ୟକ୍ତି ହେବା,
୩. ଆମରଙ୍କ ପ୍ରଦୀପିତା ପାଇଁ ୩ ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା ପାଇଁ ହେବା,
୪. କିମ୍ବାଚାରୀଙ୍କ ପାଇଁ, ବ୍ୟକ୍ତି, ଲିଙ୍ଗମାନ ପ୍ରାଚୀନତାର ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା ପାଇଁ ହେବା,
୫. ରମ୍ଭା ପାଇଁ ପାଇଁରେତ୍ରିତେ ? ପାଇସକ୍ରମିକୁ ଆମରଙ୍କ ପରୀକ୍ଷା ପାଇଁ ହେବା,

ଅନୁଷ୍ଠାନିକ-ପରୀକ୍ଷା :-

୧. କିମ୍ବାଚାରୀଙ୍କ ପାଇଁ ୩ ବିଷୟାଳୀ ହେବା,
୨. କିମ୍ବାଚାରୀଙ୍କ ପାଇଁ ୩ ବିଷୟ ପାଇଁ ବ୍ୟକ୍ତି ହେବା,
୩. ଆମରଙ୍କ ପାଇଁ ୩ ବିଷୟ ପାଇଁ ବ୍ୟକ୍ତି ହେବା ଏବଂ ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା ପାଇଁ ବ୍ୟକ୍ତି ହେବା,
୪. କିମ୍ବାଚାରୀଙ୍କ ପାଇଁ ୩ ବିଷୟ ପାଇଁ ବ୍ୟକ୍ତି ହେବା ଏବଂ ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା ପାଇଁ ବ୍ୟକ୍ତି ହେବା,
୫. କିମ୍ବାଚାରୀଙ୍କ ପାଇଁ ୩ ବିଷୟ ପାଇଁ ବ୍ୟକ୍ତି ହେବା ଏବଂ ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା ପାଇଁ ବ୍ୟକ୍ତି ହେବା,

ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା

<p><u>ବିଷୟ</u></p> <p>ଅନୁଷ୍ଠାନିକ, ପାଇଁ, ପାଇସକ୍ରମିକୁ, ବିଷୟାଳୀ ହେବା, ଏବଂ ବିଷୟାଳୀ ହେବା,</p>	<p><u>ବ୍ୟକ୍ତି</u></p> <p>ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା ପାଇଁ ବ୍ୟକ୍ତି ହେବା ଏବଂ ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା ପାଇଁ ବ୍ୟକ୍ତି ହେବା,</p>
--	---

ଅନୁଷ୍ଠାନିକ-ପରୀକ୍ଷା

୧. ଆମରଙ୍କ ପାଇଁ ୩ ବିଷୟାଳୀ ହେବା,
୨. ଆମରଙ୍କ ପାଇଁ ୩ ବିଷୟ ପାଇଁ ବ୍ୟକ୍ତି ହେବା,
୩. ଆମରଙ୍କ,
୪. ଆମରଙ୍କ ପାଇଁ ବ୍ୟକ୍ତି ହେବା ଏବଂ ଅନୁଷ୍ଠାନିକ ପରୀକ୍ଷା ପାଇଁ,
୫. ଆମରଙ୍କ ପାଇଁ, ବିଷୟାଳୀ ହେବା -

ଅମ୍ବାଜନ

2. କୁଳ ରାଜ୍ୟ ପାଇଁ କିମ୍ବା ଅନ୍ୟଭାବ କି ?
 3. ଆଜି ତାଙ୍କ କିମ୍ବା କିମ୍ବା କାହାର କାହାର ?
 4. କୁଳ ରାଜ୍ୟ କିମ୍ବା କାହାର ?
 5. କୁଳ ରାଜ୍ୟ କିମ୍ବା କାହାର ?
 6. କୁଳ ରାଜ୍ୟ କିମ୍ବା କାହାର ?

मन्त्रिमंडल

‘ବୀରମନାନ୍ଦ’ କିମ୍ବା ‘ବୀରମନ’ ଏକ ପାତ୍ର ହେଲା (କଥାରେ)

<u>ပုဂ္ဂန်များ</u>	<u>ပုဂ္ဂန်များ</u>	<u>ပုဂ္ဂန်များ</u>	<u>ပုဂ္ဂန်များ</u>
သို့ -	→ ၁၇၀°		
၁၇၀° -	→ ၁၈၀°		
၁၈၀° -	→ ၁၉၀°		
၁၉၀° -	→ ၂၀၀°		
၂၀၀° -	→ ၂၁၀°		

ပုဂ္ဂန်များ :-

အပေါ်တွင် ပုဂ္ဂန်များ ဖြစ်တဲ့ အကျဉ်းချုပ် အား လုံး၊ ပုဂ္ဂန်များ အား လုံး၊ အပေါ်တွင် ပုဂ္ဂန်များ ဖြစ်တဲ့ အကျဉ်းချုပ် အား လုံး၊

၁. အပေါ်တွင် ပုဂ္ဂန်များ ဖြစ်တဲ့ အကျဉ်းချုပ် အား လုံး ဘူး ၅၈° -
၂. အပေါ်တွင် ပုဂ္ဂန်များ ဖြစ်တဲ့ အကျဉ်းချုပ် အား လုံး ဘူး ၁၁၀° -
၃. ၁၇၀° မှာ ပုဂ္ဂန်များ ဘူး ?
၄. ပုဂ္ဂန်များ အား လုံး ၃၆၀° ?
၅. ဒါမူးကုန်တော်မှာ ပုဂ္ဂန်များ အား လုံး ဘူး ?

၁. "ဒါမူးကုန်တော်မှာ ပုဂ္ဂန်များ အား လုံး ဘူး" မှာ ပုဂ္ဂန်များ အား လုံး ဘူး ?
၂. ဒါမူးကုန်တော်မှာ ပုဂ္ဂန်များ အား လုံး ဘူး ?
၃. ဒါမူးကုန်တော်မှာ ပုဂ္ဂန်များ အား လုံး ဘူး ?
၄. ဒါမူးကုန်တော်မှာ ပုဂ္ဂန်များ အား လုံး ဘူး ?

အား လုံး

၁. "သို့ မှာ ပုဂ္ဂန်များ အား လုံး" - ၁၇၀° အား လုံး အား လုံး

၂. S.C.E.R.T. "သို့ မှာ ပုဂ္ဂန်များ အား လုံး" (၂၀၂၀) Page no - 67 - 70 .

Examined
05/12/2022

Examined
05/12/2022

BHAVAN'S TRIPURA COLLEGE OF TEACHER EDUCATION



NARSHINGARH, AGARTALA, TRIPURA

SUBJECT : ASSESSMENT FOR LEARNING

NAME OF THE TRAINEE : DEBARPITA DEB

ROLL NO. : 20

NAME OF THE UNIVERSITY : TRIPURA UNIVERSITY

ACADEMIC SESSION : 2021-23

SEMESTER : 2ND

COURSE : B.ED

PAPER : C9

DATE OF SUBMISSION : 03 - 06 - 2022

CONTACT NO. : 9863019219

Debarpita Deb
17/06/22

Debarpita Deb
SIGNATURE
03 - 06 - 2022

Assessment for learning (C9)

1. How can students use the assessment as a learning tool and teacher uses it as a support for learning?

Answer: Assessment in education is best described as an action "to determine the importance, size, or value of." Assessment is a process by which information is obtained relative to some known objective or goal.

By assessment, we mean the processes and instruments that are designed to measure the learner's achievement, when learners are engaged in an instructional programme of our own or another. Sometimes, as teachers, we assess our classes as learning spaces and thus our teaching of them.

Assessment is a key component of learning because it helps student ~~learn when~~ Students are able to see how they are doing in a class, they are able to determine whether or not

they understand the course material. Assessment also help motivate students. If students discover that they are doing poorly, they may begin to work harder. For example, Rahul is a chemistry student. He just attempted his first and exam in class. He earned 56%, he needs 79% to pass the class. The low exam score lets Rahul know that he did not successfully learn the material and that he must try something new in order to earn a better score.

On the other hand assessment helps the teacher just as it helps the students frequent assessment allows teachers to see if their teaching has been effective. If they found that the majority of the students are having problem to score minimum to pass the exam,

they will change the way they teach.
for example, Mrs Gyita a 12th grade biology
teacher after finishing the unit one cell
division. She gives a 50 point multiple choice test.
Upon grading the exam she realized the
average class grade was 68% far below the
cut off line for passing. Mrs Gyita could
easily see that no students didn't fully
learn cell division. This tells her that she
needs to revisit the unit on cell division.

This is how we can see how assessment
helps both the students and the teachers
in completing their course. By this they
both can work on their weakness. During
this time if they see that this method is not
working, they can both change the learning
and teaching method.

2. What is Problem-Solving and why it is important?
What are problem solving solving strategies

Solving problems means means making choices.
Typically, effective problem-solving skills result in
"happier, more confident and more independent"
individuals. It is important in child development
because confident, capable children usually
grow into confident, capable adults.

Problem Solving is the ability of students
to make choices, interpret, formulate, model and
investigate problem situations, select and use
technical functions and communicate solutions
effectively.

Importance of problem solving for
children:

One crucial aspect of problem-solving is
to identify a problem at its earliest stage so
that one can prevent it from escalating into

Something more serious. For example, if children have a dispute with a playmate, they need to learn about the importance of sharing and taking turns. This kind of knowledge is necessary in order for children to develop healthy relationships with others.

Furthermore, problem solving plays a vital role in children's cognitive development. It encourages creativity because it allows kids to view situations from different perspectives. Sometimes creative solutions are better than more obvious ones when addressing problems.

There are many reasons why problem solving skills are essential for kids. When children can effectively face and address conflicts, they exercise their imaginations, creativity, critical thinking skills, and logic in order to address a difficult situation. Overtime children

who are given opportunities to practice their problem solving skills will grow more confident in their abilities.

Children who lack academic motivation are less likely to succeed in school, while possessing strong problem-solving skills will encourage them to engage more in the learning process.

Showing a picture or a diagram of the problem can help us illustrate the situation. Some basic things or strategies we can use to solve all kinds of problems are as follows:

1. Define the problem: Taking the time to define a potential challenge can help us identify certain elements to create a plan to resolve them.
2. Break the problem into smaller pieces: Breaking the problem into smaller pieces allow us to focus on resolving each smaller piece of the problem individually which may be manageable.

- 3) Work backwards:- Sometimes the best way to solve a problem is to work backwards to solve it. This can be helpful if we need to recreate specific events to locate the root.
- 4) Use the past experiences: Take time to relate, if we have encountered a similar situation to our current problem in the past, if yes we can adapt those solutions to the problem we are currently trying to solve.
- 5) Consider the trial and error approach: If the problem has multiple solutions and we are trying to find the best one, using trial and error approach may be useful. By making a list of several potential solutions and then try one by one.

6) Ask our peers for help: Getting opinions from our peers can expose us to new perspectives and unique solutions.

So this is how, using the above mentioned strategies we can solve any of our problems.

(3) Write the features of Standardized Test. Prepare a blueprint of assessment of class VII on 100 marks.

Ans: A Standardized test refers to a test that follows the same pattern and is uniformly given to each student. The main aim of Standardized test is to ensure uniformity at every level.

features of Standardized tests are as follows:-

- (1) Standardized test are practical
- (2) Standardized testing results are quantifiable
- (3) Standardized tests are scored via computer, which frees up time for the educator
- (4) Since scoring is completed by computer, which it is objective and not subject to educator bias or emotions.
- (5) Standardized testing provides a longitudinal report of student progress.

(6) Standardized testing allows educators to compare scores students within the same school and across schools.

Line No.	Chapters	Knowledge Based			Understanding Based			Application Based			Skill Based			Marks	%
		VSA	SA	LA	VSA	SA	LA	VSA	SA	LA	VSA	SA	LA		
1.	Nutrition in Plants	A1		D1			C1				B1			10	10%
2.	Nutrition in Animals			C2				D2	B2		A2			10	10%
3.	Fibre to fabric		B3			A5	B4	C4		D3		C3	10	10%	
4.	Heat	A4								C5	D5	04	10	10%	
5.	Acids, Bases and Salts		B5			A5		D6	A6		B6		10	10%	
6.	Weather, climate and adaptation			C6									10	10%	
7.	winds, storms and cyclones	A7			D7		B7				C7		10	10%	
8.	Physical and Chemical changes		B8					D8	A8		C8		B9	10	10%
9.	50%					A9		C9			D9			10	10%
10.	Respiration in Organisms				D10		B10			C10		A10		100	100%
		3	6	6	2	3	6	9	12	2	2	6	4	100	100%
														Percentage	
														25%	
														30%	
														27%	

$$\begin{aligned}
 (A) 1 \times 10 &= 10 \\
 (B) 2 \times 10 &= 20 \\
 (C) 3 \times 10 &= 30
 \end{aligned}$$

25%

30%

27%

Percentage

4. What are the different measures of Variability?

Discuss them in brief.

Measures of central tendency - mean, median and mode - provide central value or typical representative of a set of scores as a whole. Through these measures we can represent the characteristic or the quality of the whole group by a single number. By comparing such typical representatives of different sets of scores, we can compare the achievement of two groups. These representative numbers merely give us an idea of the general achievement of the group as a whole.

The tendency of the attributes of a group to deviate from the average or central value is known as dispersion or variability.

When we talk about the measures of variability or dispersion, our first target is to find out simply the expected range of dispersion

4. What are the different measures of Variability?

Summarize them in brief.

Measures of central tendency - mean, median and mode - provide central value or typical representative of a set of scores as a whole. Through these measures we can represent the characteristic or the quality of the whole group by a single number. By comparing such typical representatives of different sets of scores, we can compare the achievement of two groups. These representative numbers merely give us an idea of the general achievement of the group as a whole.

The tendency of the attributes of a group to deviate from the average or central value is known as dispersion or variability.

When we talk about the measures of variability or dispersion, our first target is to find out simply the expected range of dispersion.

or variation above and below the average or central value for the given data.

The different types of measures of variability are as follows:

1. Range (R): Range is the simplest measure of variability or dispersion. It is calculated by subtracting the lowest score in the series from the highest. But it is very rough measure of the variability of a series. It takes only extreme scores into consideration and ignores the variation of individual items.

2. Quartile Deviation: It is computed by the formula

$$Q = \frac{Q_3 - Q_1}{2}$$

Where Q_1 and Q_3 represent the 1st and 3rd quartiles of the distribution under consideration.

The value of $Q_3 - Q_1$ is the difference or range between the 3rd and 1st quartiles. It is called interquartile range.

(iii) Average Deviation (AD) : It is the simplest measure of variability that takes into account the fluctuation or variation of all the items in a series.

$$AD = \frac{\sum |x|}{N}$$

Where $x = X - M$ = deviation of the raw score from the mean of the series and $|x|$ signifies that in the deviation values we ignore the algebraic signs +ve or -ve.

(iv) Standard Deviation (SD) : Standard deviation of a set of scores is defined as the square root of the average of the squares of the deviations of each score from the mean.

Symbolically we can say that

$$SD = \sqrt{\frac{\sum(X-M)^2}{N}} = \sqrt{\frac{\sum x^2}{N}}$$

where,

x : Individual Score

M : Mean of the given set of Scores

N : Total No. of the Scores

x = Deviation of each score from the

mean.

Standard deviation is regarded as the most stable and reliable measure of variability as it employs the mean of computation. It is often called root mean square deviation and is denoted by the Greek letter Sigma (σ)

Group-B

2. Write the criteria of a good evaluation test.

Commonly accepted criterias of good evaluation tests are:-

1. Validity - The degree or extent to which a tool actually, accurately, efficiently and infallibly measures what is supposed to measure.
Validity may be of low, high or moderate degree.

2. Reliability - The consistency or stability of scores obtained by the same individual under re-examination and variable examining conditions.

3. Objectivity - Elimination of personal judgement and bias factor from the scoring.

4. Adequacy - A good test will be long enough and balanced enough to judge the objective widely i.e. cover maximum Syllabus.

5. Discriminating power - It should be able to classify and differentiate between students based on their aptitude and achievement shown in the test.

6. Usability / Practicability - Ease of administering, ease of interpretation, usage of scores, economical etc.

3) Find out the mode for the following frequency distribution

Score	40-44	45-49	50-54	55-59	60-64	65-69
F	3	3	4	6	6	14

Score	70-74	75-79	80-84	85-89	90-94
F	9	8	2	4	1

Soln :-

Class	F	CI
40-44	3	39.5 - 44.5
45-49	3	44.5 - 49.5
50-54	4	49.5 - 54.5
55-59	6	54.5 - 59.5
60-64	6	59.5 - 64.5
65-69	14	64.5 - 69.5
70-74	9	69.5 - 74.5
75-79	8	74.5 - 79.5
80-84	2	79.5 - 84.5
85-89	4	84.5 - 89.5
90-94	1	89.5 - 94.5

$$\text{Mode} = L + \left[\frac{F - F_1}{2F - F_1 - F_2} \right] x_i^o$$

Here,

$$L = 64.5$$

$$F = 14$$

$$F_1 = 6$$

$$F_2 = 9$$

$$i^o = 5$$

$$\text{Hence, Mode} = 64.5 + \left[\frac{14 - 6}{2 \times 14 - 6 - 9} \right] \times 5$$

$$= 64.5 + \frac{8}{13} \times 5$$

$$= 64.5 + \frac{40}{13}$$

$$= 67.5769$$

$$= 67.58$$