

Nature of internee engagement during internship

PART 2



Regional Institute of Education

(National Council of Educational Research and Training)

Bhubaneswar -751022, Odisha

Name KHYATI SINGH

Std. 5th Sem Div. B.Sc. B.Ed Roll No. 17

Subject Skill class.

JUMBO
Ex-Book

Scholar
Gold

Name of the teacher - Ananya Karmakar
Sub - Science
Topic - 1st law of motion.

The teacher started the class by writing the topic on the board and putting up a chart. The contents of the chart were good & interesting. The font of the content in the chart was quite small which made it difficult for the ~~the~~ student sitting ^{on} other somewhere other than the first bench ~~difficult~~ to see. She went through the chart quite fastly and the student teacher interaction could be better if she was a bit slower. The classroom management could be better as the students were not sitting in an ordered manner and were not attentive. Voice modulation could have been better as it was not audible to all the students. The pace of the class could have been a bit bit slower. ~~The~~ More interesting and attention ~~do~~ catching TLM could be used for concept clarity.

Name of teacher - Khirud Chandra Sabar.

Subject - Science.

Time - 30 min.

Topic - Friction.

The teacher started the class by reciting a story which made the class quite interesting. He made the students perform the activities. He used the blackboard properly to explain the concepts and ~~pro~~ numericals. He gradually proceeded the class clearing the doubts and explaining the doubts to the again & again.

The teacher was a bit nervous but, a confident appearance ~~was~~ could have made the class better alongside helping in classroom management. The evaluation or assessment could also ~~be~~ be added making it more interactive for the students.

Name of the teacher - Kabir Srivastava

Subject - Science

Topic - Gravitation

Time - 50 min.

The class started with ~~an~~ good engaging speech. The ~~at~~ class was basically taken by a lecture method. The ~~the~~ class was not much interactive as the teacher kept on speaking, with little TLM. The evaluation was good as he gave problems & later explained them.

He directly pointed a student and asked her to dance for him, which felt rude and should have been avoided. He avoided the students and did not acknowledge their doubts. The class went on for more than double the time limit. ~~The~~ Time management of the class could have been better. While writing on the board, he should have maintained an angle of 45° as he often blocked the board.

Date | 26/11/21

Page |

Name of the teacher - Anubita Kumari

Subject - Science.

Topic - Characteristics of particle of matter.

Time - 30 min.

The class started by asking the students to arrange themselves & sit in a proper manner. The 5E model was followed throughout the class. The teacher ~~used~~ made ^{the students to perform} a good number of activities & experiment in the class. The class was interactive. She was a bit soft with ~~her~~ her voice. The voice modulation should be taken care of. The board was used properly and evaluation was also done creatively by bringing out charts & pluck cards and making the students come on the stage to solve the charts & questions on the pluck card. 🍀

Name of teacher - Arindam Halder

Subject - Science

Topic - Atoms and molecules.

The start of the class was very interesting and engaging. The voice modulation was great.

He started the class with story telling.

He very smoothly proceeded the class by connecting each topic one by one.

The board was used properly. The classroom and time management was good.

The evaluation process was carried by conducting a quiz. The quiz was conducted successfully with great enthusiasm in the students.

He also cleared all the doubts of very nicely by giving enough time to every student who had doubt of any sort. The handwriting was legible but could be improved.

Name of teacher - Kade Mardi

Subject - Science

Topic - Second Law of motion

The teacher started the class with a story which brought him all the attention of the students. The class was involving & interactive. He used the inductive approach. He also used the white board properly & managed the time. He also focused on the students clarity of concept. He solve a good number of questions on the board & explained all of them in good details. The voice modulation could be taken care of as the teacher was speaking with a low voice at times. He was little under confident at the starting but slowly became confident as the class proceeded.

Name of teacher - Jayant Rituraj

Roll no - 13

Subject - Science

Time - 30 min

Topic - Matter.

The teacher started the class by telling a story which engaged all the students. Explanation of every topic was taken care of. He used colourful markers for illustration which made it more interesting to ^{watch} ~~see~~ the board. Whiteboard was judiciously used. Class was very well managed. Time management was good.

It would have been better if he spoke a little bit slower as he was not clearly audible at few instances. The activities were mostly done by boys and instruction was not audible to all. The ~~duration~~ ~~part~~ evaluation part was missing totally. He was a bit nervous but as the class proceeded he picked up eventually.

Name of teacher - Bikas Kumar

Roll No - 11

Subject - Science

Time - 30 min

Topic - Pollution

The teacher started the class by trying to make connection with the previous knowledge of the class and gradually he moved forward with the topic of the class. He used TLM like chart. He also used the board properly. His voice modulation was good and he had good confidence.

He should have engaged the class in a more interesting way instead of directly asking questions. Some part of the topic could have been explained ~~more~~ elaborately. The board was used properly but the hand-writing was not that good. He also scolded students which should be avoided.

REGIONAL INSTITUTE OF EDUCATION (NCERT)
BHUBANESWAR – 751022



एन सी ई आर टी
NCERT

SCHOOL INTERNSHIP PROGRAMME



JAWAHAR NAVODAYA VIDYALAYA,
TARBHA, SONEPUR(O)-767016

Activity – 8
Action Research

16

Prepared by:

Name: Bandana Sahu
Roll No: 09 (Science)

CERTIFICATE

This is to certify that the Action Research titled,

Title: *"Facing difficulty in making diagrams and writing terminologies in Biology of Class VIIIth students."*

It is a genuine and bona fide work prepared by:

Name - *Bandana Sahu*

Class - B.Ed. 2nd Year

During the academic session 2022-2023 under our guidance and supervision. This action research is for the partial fulfillment of the requirements of the degree of Bachelor of Education, RIE Bhubaneswar (NCERT), Utkal University.



Principal
J.N.V. Jambha, Sunder
ODISHA 751015

APPENDIX-7

REGIONAL INSTITUTE OF EDUCATION (NCERT), BHUBANESWAR-751022
FORMAT FOR ACTION RESEARCH
B.Ed

1. Personal Information:

2. Name and address of Cooperating School: JNV, TABHA SONEPUR

3. Name of the Student Teacher: Bardana Sahu

4. Roll No with Science /Arts: Science

Body of the Action Research Report

1. Title of the Action Research:

2. Analysis and Description of the Action Research Problem:

3. Objectives and Action Hypothesis:

4. Designing Intervention/s

5. Implementing Intervention/s

6. Evaluating Intervention/s


7. Analysis of the Result

8. Reflection and Decision

9. References

10. Appendix

Bardana Sahu
Signature of the Student Teacher


Signature of the Supervisor/ Head Teacher
PRINCIPAL
JNV Tarbha Sonapur
ODISHA 757016

PERSONAL INFORMATION:-

- Name and address of Cooperating School : JNV, Tarbha
- Name of the student teacher: Bandana Sahu
- Roll Number: 09
- Stream: Science

BODY OF THE ACTION RESEARCH :-

1. TITLE OF THE ACTION RESEARCH:

"FACING DIFFICULTY IN MAKING DIAGRAM AND WRITING TERMINOLOGIES IN BIOLOGY" of some students of class VIIIth A.

2. Analysis and Description of the Action Research problem:-

- I conducted an action research for the purpose of improvement in making diagrams in biology and understanding its important terminologies among some children.
 - I had been assigned a task of copy correction of class 8 students in PWT-2 (Periodic Written Test-2) and I got to know that some students have issues in making diagrams and they are creating mistakes while writing the important terminologies of biology. Then I had seen their previous assessment records and their class notes. From that I came to know that some students are poor in making diagrams and understanding the important terminologies of biology.
- So, I planned this research for the purpose of

encouraging students to understand the importance of terminologies and making diagrams in biology and also to make them curious towards the "BIOLOGY SUBJECT". We conducted this research among class ~~VIII~~ students who are facing such problems.

3. * OBJECTIVES:

The objectives of action research is to understand what is happening in a specific classroom and to determine what might be improve students learning in that setting.

- To aware the student about the importance of Biology.
- To motivate each and every student to learn Biology.
- To develop curiosity and interest towards the learning of Biology.
- To develop respect towards Biologists and their contributions in the field of Biology.
- To develop concern towards the different types of animals and plants.
- To develop scientific attitude, scientific temper and critical thinking among the students.
- To protect and conserve biodiversity.
- To understand the importance of Biology and connect it to the real life world.
- To develop problem solving attitude among learners along with scientific look.
- To understand all living being on the earth emerged from one being to another which inculcates "oneness" of all living beings.

ACTION HYPOTHESIS

⊙ My hypotheses regarding this issue are as follows:-

- ◆ Student might face difficulty in understanding biological concepts.
- ◆ There might be some defects in student's hand (PwD candidate).
- ◆ Student might be facing problem to cope up and connected with the subject teacher.
- ◆ Student may have lack of interest to study biology.
- ◆ Students may requires individual attention.
- ◆ There might be lack of guidance in art class.
- ◆ Student may possess negative attitude towards certain topics of Biology.
- ◆ There might not be proper use of Teaching learning material by the teachers.

4. DESIGNING INTERVENTIONS:-

⊙ The planning steps of interventions are as follows:-

STEP-1: After found out the problem I talked to the subject teacher.

STEP-2: I observe the responses and activities of each and every student in the class

STEP-3: Then I designed the strategy and conduct the experimental assessment of the students.



STEP-4:

Discuss with the subject teachers after designing strategy and conduct experimental assessment.



STEP-5:

Remedial for the students those who are facing difficulties in making diagrams and writing terminologies.



STEP-6:

Proceed for the implementation of the action research.

5. IMPLEMENTING INTERVENTIONS:

Execution of the planned interventions are described below:-

Step-1

- After correcting the PWT-2 (periodic written Test-2) exam copies I talked to the subject teacher and found out the problems which are related to making diagrams in biology and understanding the important terminologies of this subject.
- The problems that I discussed with the subject teacher are as follows:-

(30) Shayam - white - returning from school saw a large
ward to move a heavy box. He brought - heavy
bars and asked that he ~~because~~ push heavy
is shayam and brought bag in put box new
work box.

(31) (a) The bad fishes are body changed and uncharal
(b) The bad mine for mecauet usual. High with
Puck.

(c) ~~minim~~ - powder is sprinkled over cotton to
chemical. Pow-rc the push is - cotton

Section-13
Yes, deforestation is associated with global warming because when human being
is animal plant is called ~~is~~ global warming.

24. endemic species

PART-II

Qs) Both A and oil is The cooking is mother fine start fine
is the (LPL) Liquefied Petroleum Gas.

8

$$\text{Caloric value} = \frac{1,80,000}{60 \text{ kg}} = 60,000$$

amount of heat and energy

STEP-2:-

- I took regular classes according to the split up syllabus with Constructivistic lesson planning.
- After completion of certain important topic i checked the notebook of each and every students how they are drawing the diagrams and writing the terminologies.
- After observing the responses and activities of each and every student i found that some students are drawing the diagrams and writing the concepts very nicely and some are poor in drawing diagrams and writing terminologies.

For Example :- While teaching the topic "Reproduction in animals" I found out some students are very poor in making diagram of male and female reproductive system and also in writing the terminologies such as:- Spermduct, Vasa deferentia, testis, Oviduct / fallopian tube, uterus, ovary, vagina and ovum etc.



STEP-3:-

- Then I designed the strategy and conduct the experimental assessment of the students.
- After observing all the students I planned to take remedial classes regularly for the students who needed extra guidance in above mentioning problems.
- Importance of remedial Education :-
 - The goal of remedial education is to provide extra assistance to students who, for whatever reason, have fallen behind the rest of the

the class in various areas.

- The objectives of remedial education are to provide support and attention according to the needs and interests of the students and to organize and design individualized educational programmes to improve their backwardness in various subjects.

For this reason, I had chosen remedial education as an effective tool to solve this problem.

STEP-4:

- Then I discussed about my strategies with subject teacher and he helped me for implementing it. With the cooperation of subject teachers I talked with other subject teachers to take the remedial classes regularly for certain period of time.
- With the cooperation of teachers, I successfully took the remedial classes regularly for several days.
- The subject teacher helped / guided me for implementing the strategy in following ways:-
 - He provided a variety of incentives to cater to the interests of the students.
 - He helped how to work on organization and how to develop study habit among students.
 - He explained me the ways of tutoring.
 - Guided to deal with student's behavioural problems.

- He explained me about various teaching strategies which are helped me in remedial classes.

STEP-5:-

- I took remedial classes by taking 15 students of class VIIIth who are facing such problems and to implement our strategy.

- The strategies for improvement in ~~making~~ diagram and terminologies are as follows:

TIME PERIOD	ACTION TO BE TAKEN TO IMPROVE DIAGRAM & IMPORTANT TERMINOLOGY IN BIO.		TOOLS USED	
Day 1 to Day 3	<u>DIAGRAM</u>	<u>TERMINOLOGY</u>	<u>DIAGRAM</u>	<u>TERMINOLOGY</u>
[Topic:- Sexual Reproduction in flowering plants]	Teacher used colourful chalks to draw diagram of flower while teaching sexual reproduction in plants, so students get motivated to draw neat diagram and clear diagram.	Teacher applied different strategies to explain the terminologies effectively while teaching this subject. • The important words are:- - <u>Androecium</u> & <u>Gynoecium</u> <u>pollen grains</u> , <u>pollination</u> , <u>fertilisation</u>	<ul style="list-style-type: none"> • Colourful chalks • Charts • Flower (Real object) 	<ul style="list-style-type: none"> • Word puzzles related to this topic. • Games of repetition of words.

TIME PERIOD	ACTION TO BE TAKEN TO IMPROVE DIAGRAM & IMPORTANT TERMINOLOGY IN BIOLOGY		TOOLS USED	
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Day 4 to Day 6

[Topic - Sexual Reproduction in Humans]

DIAGRAM	TERMINOLOGY	DIAGRAM	TERMINOLOGY
Teachers used appropriate teaching learning material (TLM) to explain male and female reproductive system using ICT-integrated pedagogy and other methods.	<ul style="list-style-type: none"> - Teachers played the games of puzzles and missing letters so that they can understand the concept effectively. - Terms are - <u>fallopian tube</u> <u>Vasa differantia</u> <u>uterus</u> etc. 	<ul style="list-style-type: none"> - ICT videos - power point presentation - audio-visual aids. 	<ul style="list-style-type: none"> - puzzles - game of missing letters.

Day 7 to Day 9

[Topic - Heart structure]

<ul style="list-style-type: none"> - Teacher showed 3D visualisation model clip to explain the structure of Heart. - ICT integrated pedagogy followed by the teacher. 	<ul style="list-style-type: none"> - Teacher played the game of cross words in class to explain different terminology. - played online quizzes - Terms are <u>Atrium</u> 	<ul style="list-style-type: none"> - Model. - ICT. - Games of find and complete the puzzle. - Coloured Chalk 	<ul style="list-style-type: none"> - Quizzes - Cross words.
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TIME PERIOD	ACTION TO BE TAKEN TO IMPROVE DIAGRAM & IMPORTANT TERMS IN BIOLOGY		TOOLS USED	
	DIAGRAM	TERMINOLOGY	DIAGRAM	TERMINOLOGY
	- Teachers used coloured chalk to explain the diagram	<u>Ventricle</u> , <u>aortic</u> , <u>aorta</u> , <u>veins</u> → <u>arteries</u> etc.		
Day 10 to Day 12 [Topic - Human Respiratory system]	- Teachers shows models and other TLMs to demonstrate human Respiratory system. - Teacher showed an ICT video to explain the functioning of human Respiratory system. - Teacher used Coloured Chalk to explain Diagram	- Teacher played online Kahoot and quizzes to the students for the improvement of their word power. Important terms are: <u>Lungs</u> , <u>Trachea</u> , <u>Bronchioles</u> , <u>Brochio</u> , <u>alveoli</u> , <u>Larynx</u> , <u>pharynx</u> , <u>nose</u> and <u>nasal cavity</u> etc.	- Models - Charts - ICT clips	- Kahoot - quizzes - Word games

TIME PERIOD	ACTION TO BE TAKEN TO IMPROVE DIAGRAM & IMP. TERMS IN BIOLOGY		TOOLS USED	
	DIAGRAM	TERMINOLOGY	DIAGRAM	TERMINOLOGY
Day 12 to Day 15 (Human digestive system)	<ul style="list-style-type: none"> - To explain this topic teacher shows a model of digestive system along with charts to the students - Teacher clearly elaborate the diagram using ICT videos. - calls student to front to draw diagram 	<ul style="list-style-type: none"> - Teacher used online quizzies and Kahoot application so that student can understand the terminologies effectively. The terms are:- <u>pancreas</u>, <u>stomach</u>, <u>oesophagus</u>, <u>pharynx</u> etc 	<ul style="list-style-type: none"> - Model - charts - ICT video - puzzle game. - to 	<ul style="list-style-type: none"> - quizzies - Kahoot - puzzle game.
Day 16 to Day 18	<ul style="list-style-type: none"> - To explain the transportation in humans teacher used model of kidney and charts. 	<ul style="list-style-type: none"> - Teacher plays the game of missing letters and puzzle to explain the 	<ul style="list-style-type: none"> - Model - charts - Coloured Chalk 	<ul style="list-style-type: none"> - game of missing letters and puzzle

TIME PERIOD	ACTION TO BE TAKEN TO IMPROVE DIAGRAM & IMP. TERMS IN BIOLOGY		TOOLS USED	
Topic - (Structure of Human excretory system)	DIAGRAM	TERMINOLOGY	DIAGRAM	TERMINOLOGY
	<ul style="list-style-type: none"> - Teachers also used ICT videos and power point presentation to explain the diagram effectively. - Teachers calls each student to front and asks them to draw the diagram - Teachers use coloured chalk 	<ul style="list-style-type: none"> concept effectively. - The important terminologies are: - <u>Ureter</u> <u>Urethra</u> <u>Kidney</u>, <u>nephrons</u> etc. 		
Day 19 to Day 20	<ul style="list-style-type: none"> - Teachers used ^{clay} models to demonstrate the cell structure - Teachers used 	<ul style="list-style-type: none"> - Teachers played cross word and missing words to explain the terminology 	<ul style="list-style-type: none"> - ICT - Chart - Clay model of cell 	<ul style="list-style-type: none"> - Quizzes - Kahoot - puzzle game - games of missing letter.

TIME PERIOD	ACTION TO BE TAKEN TO IMPROVE DIAGRAM & IMP. TERMS IN BIOLOGY		TOOLS USED	
	DIAGRAM	TERMINOLOGY	DIAGRAM	TERMINOLOGY
[Topic - Structure of cell]	Ict integrated pedagogy to describe the cell structure.	- Teachers used quizzies and kahoot games to explain the important terms such as:- <u>cell wall</u> , <u>nucleus</u> , <u>chromosomes</u> , <u>DNA</u> , <u>chloroplast</u> , <u>Ribosomes</u> etc.		
Day 22 to Day 24 Topic - Types of	- Teachers used microscope to show the different types of microorganisms and used charts to show structure of Bacteria, fungi, protozoa,	- Teachers used different strategies to explain some important terminology. - The terminologies are:- <u>Bacteria</u> <u>Algae</u>	- Microscope - chart - Models - PPTs - pictures	- Quiz - game of puzzle and missing letters. - cross words.

TIME PERIOD	ACTION TO BE TAKEN TO IMPROVE DIAGRAM AND TERMINOLOGY		TOOLS USED	
	Diagram	Terminology	Diagram	Terminology
	algae, virus etc. - Teacher also use ICT pictures to explain the diagram to the students	- <u>spirogyra</u> - <u>fern</u> - <u>Amoeba</u> - <u>paramecium</u> - <u>salmonella</u> <u>Typhic</u> - <u>Aspergillus</u> etc.		
Day 25 to Day 27 (Types of bones in human)	- Teacher used toy based pedagogy to explain the types of bones and joints present in human body. - Teacher demonstrate toy based model to show different types of bones and joints of our body.	- Teacher uses puzzle games like word puzzle & cross words to explain some important terms such as :- <u>Skull</u> , <u>Forearm bone</u> <u>Rib</u> , <u>Wrist</u> , <u>Thigh bone</u> , <u>Knee cap</u> , <u>vertebrae</u> etc.	- Toy skeletons - Charts - Models - ICT videos and pictures	- puzzle game - Quiz - word game - Missing letter game.

TIME PERIOD	ACTION TO BE TAKEN TO IMPROVE DIAGRAM & IMP. TERMS IN BIOLOGY.		TOOLS USED	
Day 27 to Day 30	DIAGRAM	TERMINOLOGY	DIAGRAM	TERMINOLOGY
	- Appreciate the students who draw neat and clean diagram in class as well as in notebook.	- Appreciate the student who properly labeled the diagram using different terminologies	-	-

6. EVALUATING INTERVENTIONS:-

- The evaluation of the problem was done by practising of the diagram and terminologies at home in which students showed gradual improvement. The problem not only improved, the student level of making diagram and writing and understanding the terminologies but also helped in increasing their interests in the biology subject.
- The record helped the teachers as well as the students to compare their performances with other fellow students.

DATA COLLECTION FOR PRE-Test :

- CLASS:- VIIIth
- MARKS - 10
- SECTION:- 'A'
- SCHOOL:- JNV, Tarbha, Sonapur
- SAMPLE:- 15 students
- TOPIC:- Sexual Reproduction in Humans
[diagram of male and female reproductive system with the proper labeling by using appropriate terminologies] - Each diagram carries 5 marks.
- Pre Test:-

→ First of all, I taught some important topics of Biology using various strategies to class VIII 'A' students. After that I conducted a test on the topic "Sexual Reproduction in Human". And in that exam students have to draw the male and female reproductive system with proper labeling by using appropriate terminologies.

Teachers evaluate the students and found that most of the students fail to draw the diagram and write the terminologies properly.

DATA COLLECTION FOR POST-TEST

- CLASS - VIIIth
- SECTION:- 'B'
- SCHOOL:- JNV, Tarbha, Sonapur
- SAMPLE - 15 students

TOPIC:-

Circulatory system of Humans.

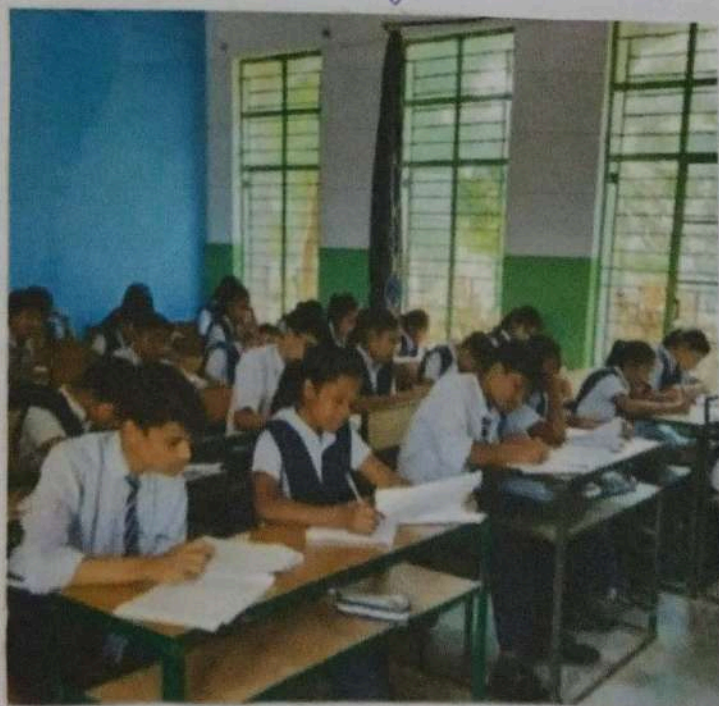
[diagram of Heart structure with the proper labeling by using appropriate terminologies]-

MARKS - 10

• About post Test:-

After implementing all the interventions (planned strategy) i again conducted a test on the topic "Circulatory system in humans" among class "VIII A" students. The test carries 10 marks and I wanted to find out whether the students are able to making diagrams and writing terminologies or not.

I evaluate the students and found out that most of the students performed better in the test and they draw the diagram neatly and labelled with proper terminologies.



S. No.	Name of the Students	Marks obtained		Percentage (%)	
		Pretest (10)	Posttest (10)	Pretest (%)	Posttest (%)
1	ASUTOSH NAIK	4	10	40	100
2	KESHABA BISHI	3	9	30	90
3	RAHUL NAG	0	6	0	60
4	SABITRI SUNA	5	9	50	90
5	SUNITA NAIK	5	9	50	90
6	KARAN SAHU	4	9	40	90
7	SWAGAT PADHAN	3	8	30	80
8	SATKRUPALINI BHOI	2	8	20	80
9	PRANGNYA KUMURA	1	8	10	80
10	PRACHI P. PADHAN	5	9	50	90
11	SUNITA NAIK	2	8	20	80
12	PIYUSH PADHAN	2	8	20	80
13	PRAGNYA KUMURA	5	7	50	70
14	RAJARAM BEHERA	5	6	50	60
15	PRABHAS KV. MEHER	7	8	70	80

Total → 53 122 35.3% 81.3%

REGIONAL INSTITUTE OF EDUCATION (NCERT)
BHUBANESWAR- 751022



SCHOOL INTERNSHIP PROGRAMME

JAWAHAR NAVODAYA VIDYALAYA
DARBHANGA, PACHARHI, PO, RAIYAM, BIHAR- 847337



Topic:

Observation of classes of Regular
Teachers


Prepared By :

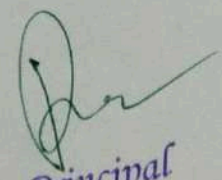
RAHUL KUMAR DUBEY

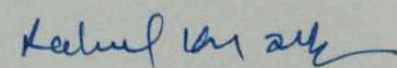
Roll no: 32

B.Ed. (SOCIAL SCIENCE)

Session: (2021-2023)


Signature of supervisor/
mentor teacher


Principal
Jawahar Navodaya Vidyalaya,
Pacharhi, Darbhanga (Bihar)


Signature of student-teacher

Appendix-2
REGIONAL INSTITUTE OF EDUCATION (NCERT), BHUBANESWAR
B.Ed.

OBSERVATION OF LESSONS DELIVERED BY REGULAR TEACHER

1. Name of the Student Teacher: RAHUL KUMAR DUBEY
2. Roll No: 32 Class: Arts/ Science Arts
3. Name and Address of the Cluster/ Centre: DARBHANGA, BIHAR
4. Name and Address of the School: J.N.U PACHRHI, DARBHANGA
5. Name of the Regular Teacher: MR. BHANUWAT PRASAD
6. Subject Taught: HINDI PC 1/2: 1
7. Topic: शिक्षण 8. Class: X 9. Date: 26-09-22
8. Lesson plan/ teacher note prepared : Yes/No
9. Approach (es) followed Constructivist/Behaviuristic.

Details of the observation (a separate sheet may be used)

Learning points	Sequential Learning Activities		Suggested Alternate/ Additional Activities and teaching-learning materials	Reasons for suggesting alternate/ Additional activities and teaching - learning materials
	Teacher activities	Student responses & reactions		
	Introductory /Engagement phase			
	Presentation phase Exploration, Explanation and elaboration			
	Evaluation phase			

- Reflection and feedback of student-teacher

Signature of Institution Supervisor

Signature of Student Teacher

<p>learning points</p> <ul style="list-style-type: none"> • water resources • process to save the water • Banyade snige Parigotana 	<p>sequential learning activities</p> <p>Teacher activities</p> <p><u>Introductory phase</u></p> <p>Teacher intend the class with smile and ask the question -</p> <p>Why do we need for water resources</p> <p>Teacher said -</p> <p>When the resources decrease then we think about the need of new resources</p> <p>Teacher and student discuss about the problem of water in</p>	<p>Student responses & reactions</p> <p>student responses answer of this question according to him about ty.</p>	<p>suggested Alternatives Activities</p>	<p>Reasons for suggesting alternate water / Add.</p>
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different country.

Presentation phase
(exploration, explanation and elaboration)

Teacher explains in detail about the availability of water in different part of india and world

Teacher discussed about the water cycle

Teacher discussed the morden and

student carefully listen to the teacher

Teacher use sea water as a TLM

Ancient ways to save water.

• meanwhile, the teacher told about the 'Bahya-udeshiya Parigrajana' and discussed Nehru's efforts in building the dam

student asked about the damage caused by building a dam.

Teacher show the related graph on smart Board

Evaluation Phase

Teacher ask question

—

Reflection and feedback of student-teacher

- voice was clear and loud
- proper use of TLM
- use of smartboard
- student participated in learning teaching process
- This lesson was linked to various topics and its various aspects were discussed.

REGIONAL INSTITUTE OF EDUCATION
BHUBANESWAR



A Multifaceted Experience...
**REFLECTION ON CO-
CURRICULAR ACTIVITIES**



SUBMITTED BY
KRITTIKA BHATTACHARYA
ROLL NO.-13(SCIENCE)
B.ED. 3RD SEM

Dumay

Principal
J.N.V. Gopalpur, Birbhum (WB)

2022-24



INTRODUCTION

School internships are pivotal experiences in the journey of aspiring educators. These opportunities allow student teachers to bridge the gap between theory and practice, providing them with real hands-on experience in classroom settings. My own school experience has been a transformative journey, offering valuable insights into teaching. It was a holistic experience that allowed me to engage in various co-curricular activities that enriched my teaching journey. In this reflection I am going to share my experiences on several co-curricular activities experienced by me. Participating in co-curricular activities has provided me with many dimensions of teaching experience and understanding of student-teacher relations.

INDEPENDENCE DAY

Participating in the Independence day celebrations was an honour and a poignant experience. It allowed me to experience the deep-rooted patriotism and unity that permeates our nation on this significant day.

Participating in the Independence day evoked a range of emotions:

- a) Patriotism → The sense of patriotism was palpable in the air. Witnessing the unfurling of the tricolor flag and singing the National Anthem alongside students and colleagues filled me with immense pride and gratitude.
- b) Unity → The celebration brought together people from various backgrounds, transcending differences and fostering a sense of togetherness.

c) Respect for Freedom Fighters :

It was a humbling experience to reflect on the sacrifices made by our freedom fighters to secure our independence.



Interacting with Students

As part of celebration, I had the opportunity to interact with students from different grade levels. It was heartening to see their enthusiasm and understanding of the significance of Independence Day. Engaging in discussions about the importance of freedom and responsible citizenship was both enlightening and inspiring.

It reinforced my belief in the power of unity, patriotism and the responsibility we all share in preserving the hard-earned freedom of country.

This experience during my school internship has left an indelible mark on my heart, serving as a reminder of the privilege and responsibility that come with being an educator in India.



हिन्दी दिवस

HINDI DIWAS

Hindi Diwas is celebrated in India to commemorate the date 14 September 1949 on which a compromise was reached - during the drafting of the constitution of India - on the languages that were to have official status in the Republic of India.

Participating in Hindi Diwas celebrations was a culturally enriching experience. It allowed me to understand, learn and experience many aspects of Hindi language.

Several short activities were conducted for over two weeks in Hindi language including interhouse competitions.

Activities included →

- 1) Poster making competition
- 2) Sulekh lekhan
- 3) Story writing
- 4) Book exhibition
- 5) Extempore competition.
- 6) Essay writing.
- 7) Muktava competition
- 8) Question making competition

The participation in these activities allowed me to →

1) Cultural Awareness

It deepened my appreciation for India's linguistic diversity and the importance of preserving and promoting languages.

2) Student Engagement

Engaging students in activities like Hindi poetry recitation and essay writing helped me connect with them on a cultural level, fostering a sense of pride in their language.

INTER-HOUSE SINGING COMPETITION

The inter-house singing competition was a part of the CCA activities of Wednesday.

This competition was a highlight of my internship, teaching me several valuable lessons.

I got the opportunity to judge the show. It was really difficult to take decisions and to choose a position as each one of the students was outstanding in their performances.

We the RIE interns had to select 1st, 2nd and 3rd positions from both junior and senior houses.

The songs selected by the students had a variety of range. Some sang folk songs and some sang classical songs.

The interhouse singing competition inculcated several values amongst students like →

1a) Teamwork →

Coordinating with students from different houses required teamwork and collaboration. It was heartening to witness students from diverse backgrounds harmonizing together.

1b) Confidence Building →

Encouraging students to showcase their musical talents helped build their self-confidence, reinforcing the idea that education goes beyond academics.

TEACHER'S DAY

Being a part of the Teacher's Day celebration, on 5th of September, I felt highly privileged. Students of class XI had put up a huge celebration with a great dinner and cultural programme.

Being a part of Teacher's Day celebrations was a humbling experience. It taught me :

a) Teacher-Student bond →

The special bond between teachers and students was evident on this day. It highlighted the impact teachers have on their student's lives.

b) Gratitude →

The outpouring of gratitude from students reminded me of the significance of teaching and the responsibility it carries.

ORGAN DONATION DAY

The organ donation day was very much inspiring and opened a new dimension of learning among students. I was privileged to offer speech on this day about organ donation day.

Participating in organ donation day activities was both educational and inspiring. It underscored:

(a) Social Awareness: It emphasized the importance of raising awareness about critical social issues like organ donation, allowing students to see the broader impact of education.

(b) Life Lessons:

Discussing organ donation with students sparked meaningful conversations about compassion and the value of giving.

CONCLUSION

Participating in these co-curricular activities during my school internship at Jawahar Navodaya Vidyalaya, Srirubham was a multifaceted experience that enriched my teaching journey. It reaffirmed the idea that education extends beyond textbooks and classrooms. These activities fostered cultural awareness, teamwork, confidence, gratitude and social consciousness among students, which are essential aspects of holistic education.

6-OUTREACH^{Fr}




A

Science Center visit Report
On
Regional Science Center, Bhubaneswar

Submitted in partial fulfillment for the Course curriculum of
Bachelor of Education (Science)
In Department of Education (Science)





17-10-19

Submitted to:
Prof.(Mrs) Gowrama.I.P.
Head of Department
Department of Education

Submitted By:
Koyel Rana
B.Ed(Sc).Roll No-14
1st year 1st Sem

Coordinated by
1. Sandeep Kumar
2. Amlesh Kumar


29.10.19

Department of Education
Regional Institute of Education
DM School Road, Unit-9, Bhubaneswar, Odisha

OBJECTIVES

Science center is a learning environment which aims to increase positive attitudes towards science by hands on experiment. The mission of the environment is to develop basic skill for science and keep in interest alive .Also educational tour have following aspect as-

1. Effective Learning

Learning is the process of acquiring new knowledge or modifying the existing knowledge, behaviors, skills, values, or preferences. Learning is more effective when it comes through experiences. Using the knowledge acquired to gain an understanding of programs, policies, services and procedures that impact society's systems

2. Personal Development

Educational Tour offers the perfect informal setup for discussion, dialogues and experiences which helps in developing various life-skills, such as team building, time management etc. to enhance one's reach and impact in society. To focus on self-awareness in a personal as well as a professional context.

3. Deepen Social and Historical Knowledge

Educational tour exposes students to different lifestyles, places, people and era. When on educational tour students broaden the understanding of every aspect of the place and its people. Students gain first hand experiences and which allows teachers to expand the topic which is not possible during the normal class.

4. Develop Critical Thinking

There are several studies suggest that educational tour stimulates student's reasoning skills.

5. Respect for Culture

When students travel to different geographies they are exposed to ideas, customs and social behavior of other societies. This may be through various experiences like Homestay Style of Trekking or participating in community work in different geographies. These activities make students to able to indulge in culturally different situations, and dealing with them appropriately.

6. Enhances Perspective

To have a better understanding of issues related to socio-economic factors, poverty, substance abuse, interpersonal relationships, community violence, social injustice, mental health problems etc. Gaining access to appropriate resources to deal with such issues.

7. Effective Communication

To develop communication skills to effectively participate in society's aspects and contribute for the betterment of individuals. Few other benefits are to focus on all kinds of practice skills related to the destination for the field trip. Using these skills for the upliftment of members in society. To integrate multiple social work practices and theories to apply general knowledge in different situations. With an understanding of these educational tour objectives, it becomes easier for students to focus on learning experiences in field tours. It allows them to have an understanding about the importance of educational tours and their benefits.

ACKNOWLEDGMENT

In the first instant, I would like to thanks our tour coordinator Dr.sandeep Kumar and Mr. Amlesh Kumar for the valuable guidance and advice. They inspired us greatly to work as a team coordinator.

He has supported every team member of group in various critical situations. We would also like to thanks to the principal Dr.P.C.Agarwal and head of the department Prof.(Mrs) Gowrama.I.P. of Regional Institute of Education who has arrange this study tour and such a good arrangement and Whole journey.

Besides above, I would like to thanks to Director and all faculties Dr.H.K.Satpathy and Mr.Gangadhar Sahoo(Das) of Regional science center to provide us such a wonderful opportunity which help us to analysis critical situation in a best possible way.

Last but not least, I would thank for all group members for their coordination and cooperation

Thanks & regards

*Koyel Rana
B.Ed(Sc).Roll No-14
1st year 1st Sem*

Events and Activities

On the 14th September, 2019, students of the Regional Institute of Education in the branch B.Ed(Sc) 1st Semester accompanied by Mr.Amlesh Kumar went to a trip to the Regional Science Centre, which is located at Acharya vihar, on the Pandit Jawaharlal Nehru Marg at Bhubaneswar, Odisha..It is well connected to the city and it took nearly 15 to 20 minutes to reach the Museum. The Museum is open to visitors from 10 am to 7 pm in summers whereas in winters it is open from 10 am to 6 pm. This science center is spread over an undulated land scape of an area of 8 acres .it houses as many as 84 interactive exhibits which include exotic plants and gardens of cactus that hold a number of cacti species. The interactive exhibits enable tourists to actively participate in the learning process of discovering the under lying principles on which these exhibits function.

There is a mathematics gallery in the science center that aims at unraveling the magical world of mathematics and its applications in daily life. This gallery also inculcates awareness among tourists about the contribution of the Indian mathematicians during the Vedic period.

The motion gallery of the science center enlightens the tourists about the various concepts of motion and its all pervading effect on the universe..The numerous interactive exhibits showcased in this section depict the motion of various entities ranging from molecules to the celestial planetary motion.

The most interesting section of the museum is the gallery of the fun sciences .Both the kids were highly elated on interacting with the exhibits of this gallery. Its showcase exhibits such as the vortex, jumping disc, antigravity mirrors and many other such fun elements. The regional science center provides a very interactive learning experience to the visitors to gain knowledge by actually experiencing the phenomenon and discovering that why things happened the way they do.

At the **Regional Science Centre**, students were taught about the motion through its showcase exhibits. Students also watched the mathematics gallery through its showcase exhibits. After watching the Motion gallery and Mathematics gallery, we all students and our teachers went to see a 3D picture. They showed us 30 min of two short videos.



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CONVERSION OF MOTION

Related Theory

When a body changes its position with respect to the surrounding objects, it is said to be in motion.

Motion of a body may fall within the category of any one of the following types:

- 1. Rectilinear Motion. 2. Curvilinear motion. 3. Rotary motion or circular motion

Body moves along straight-line is called rectilinear motion.

Body moves along curved line is called curvilinear motion.

Body moves along a circular path is called rotary or circular motion.

By help of mechanical device motion can be converted from one state to another state.

⇒ **Newton's 1st Law** The first law of motion states that an object will not change its speed or direction unless an unbalanced force (a force which is distant from the reference point) affects it.

... **Examples of Newton's 1st Law** If you slide a hockey puck on ice, eventually it will stop, because of friction on the ice.

WITH NO OUTSIDE FORCES
THIS OBJECT WILL
NEVER MOVE



WITH NO OUTSIDE FORCES
THIS OBJECT WILL
NEVER STOP



Newton's first law of motion, also known as the law of inertia, states that an object at rest will stay at rest and an object in motion will stay in motion with the same speed and direction unless acted upon by unbalanced force.

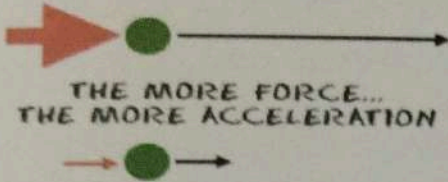
OBSERVATION:-In my observation I found that all display is an example of Newton's 1st Law of Motion is ubiquitous in everyday life.

APPLICATION: - Basketball player. Airplane, Car rest or in motion.

Conclusion: An object will move in a straight line or a given direction at constant speed unless or until another force acts upon the object, causing a change in speed and or direction.

Newton's second law of motion pertains to the behavior of objects for which all existing forces are not balanced

$$F = ma$$



The second law states that the acceleration of an object is dependent upon two variables - the net force acting upon the object and the mass of the object. The acceleration of an object depends directly upon the net force acting upon the object, and inversely upon the mass of the object. As

the force acting upon an object is increased, the acceleration of the object is increased. As the mass of an object is increased, the acceleration of the object is decreased.

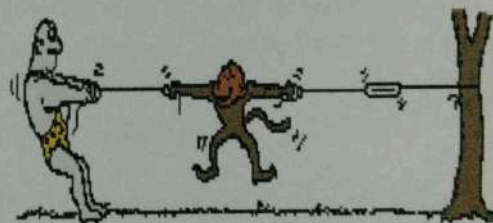
OBSERVATION:-In my observation I found that all display is an example of Newton's 2nd Law of Motion is ubiquitous in everyday life.

APPLICATION: - airplane, solid rocket engine etc

Conclusion:-Newton's 2nd Law provides the explanation for the behavior of objects upon which the forces do not balance. The law states that unbalanced forces cause objects to accelerate with an acceleration that is directly proportional to the net force and inversely proportional to the Mass.

These two forces are called action and reaction forces and are the subject of Newton's third law of motion.

⇒ **Newton's third law is:** For every action, there is an equal and opposite reaction. The statement means that in every interaction, there is a pair of forces acting on the two interacting objects.



Observation: - In my observation I found that all display is an example of Newton's 3rd Law of Motion is ubiquitous in everyday life.

Application: - Rocket and other projectile device Gas Balloon, walking on ground

Conclusion:-1. Newton's third law is probably the most famous of his Law

2. The third Law at first seems simple, but is a very important

3. Every time we interact with our surroundings we feel the third Law

CRANK AND ROCKER

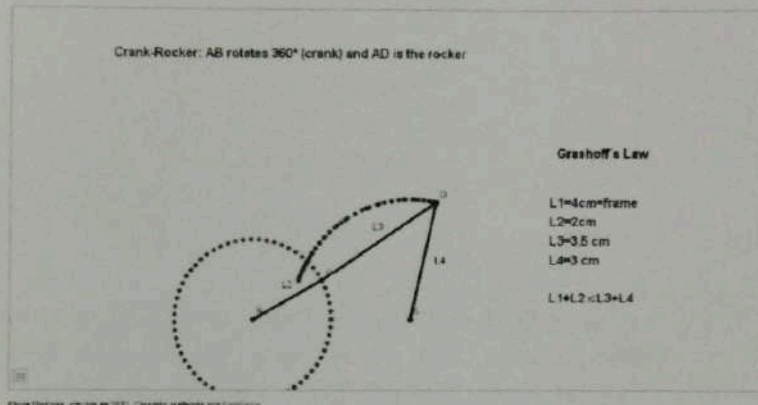
RELATED THEORY

Crank: A side link which revolves relative to the frame is called a **crank**.

Rocker: Any link which does not revolve is called a **rocker**. **Crank-rocker mechanism:** In a four bar linkage, if the shorter side link revolves and the other one rocks (i.e., oscillates), it is called a **crank-rocker mechanism**.

In crank-rocker mechanisms the rocker oscillates between two limiting angles (In general, the crank is the input and rocker is the output). The positions of the mechanism when the rocker is at a limit position are called the dead-centre positions of the four-bar.

Crank-Rocker



OBSERVATION: - Machines and mechanisms are used wherever it is necessary to replace human work. Many machines require devices that should exhibit certain movements prescribed by technology of working processes. By choosing proper link lengths and coupler point location, useful curves can be found, which were formalized by applying geometry to the analysis and synthesis of machines.

APPLICATION: - engines, machine tools, agricultural machineries, packaging and automatic machineries,

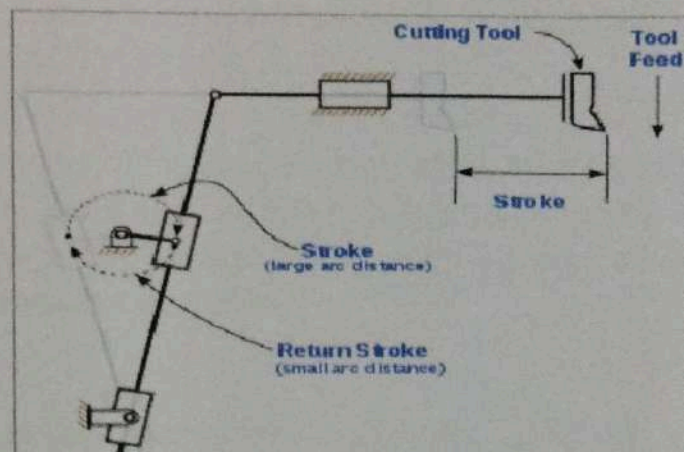
CONCLUSIONS

Use of simulations helps to deepen and broaden understanding of mechanical linkages and, specifically, Grashoff's law; by changing the length of links, users observe the different configuration of the mechanisms. Prepared simulations may be very useful to help the less gifted students to better understand kinematic problems of mechanisms.

QUICK RETURN MECHANISM

A **quick return mechanism** is an apparatus to produce a reciprocating motion in which the time taken for travel in return stroke is less than in the forward stroke. It is driven by a circular motion source (typically a motor of some sort) and uses a system of links with three turning pairs and a sliding pair.

Quick return is a common feature of tools in which the action is performed in only one direction of the stroke, such as shapers and powered saws, because it allows less time to be spent on returning the tool to its initial position.



OBSERVATION: A quick return mechanism is a mechanism that converts rotary motion into reciprocating motion at different rate for its two strokes. when the time required for the working stroke is greater than that of the return stroke, it is a quick return mechanism. It yields a significant improvement in machineing productivity.

APPLICATION: Quick return mechanisms are found throughout the engineering industry in different machines:

- Shaper
- Screw press
- Power-driven saw
- Mechanical actuator
- revolver mechanisms

CONCLUSIONS:

It is confirmed that quick return motion may increase the efficiency of the machine tool because it can reduce the rotation angle for the return stroke. It is evident that experiment met the objective in order to study the kinematic motion of the slider in its path.

TIMING GEAR

Timing Gear is a component of an internal combustion engine which is connected by a chain, gears, or a belt to the crankshaft on one end and the camshaft on the other. It is marked with tiny increments all around its perimeter which correspond to degrees of timing from the straight-up timing position of the camshaft and crankshaft. These marks assist the individual who is tuning up the engine to set the timing to the determined optimal timing degrees of the camshaft and engine designers

OBSERVATION:*In my observation I found that the gear train with two to one reduction through which the crankshaft drives the camshaft and thus controls valve timing in a four stroke cycle internal combustion engine.*

APPLICATION-*Timing gear are used on Otto cycle or 4 stroke engines and the purpose is to open the inlet valve/s at the end of the power stroke close them at the end of the exhaust stroke. Timing gears are any gears sized so that one gear is in a certain position relative to the other gear at particular intervals. While timing gears are used in many mechanical devices the term is most often used in car engines*

CONCLUSION:*It has excellent excel in the control and regulation systems still standing before them a wide field or application. It has slippage less torque and motion.*

Slider-crank mechanism. *Slider-crank mechanism*, arrangement of mechanical parts designed to convert straight-line motion to rotary motion, as in a reciprocating piston engine, or to convert rotary motion to straight-line motion, as in a reciprocating piston pump.

Working of crank mechanism :

A **crank** is an arm attached at a right angle to a rotating shaft by which reciprocating motion is imparted to or received from the shaft. It is used to convert circular motion into reciprocating motion, or vice versa. ... Attached to the end of the **crank** by a pivot is a rod, usually called a connecting rod (conrod).

There are many but the most common few are :

Hand pump

Rotary or Reciprocating Engine

Oldham's coupling

Elliptical trammel etc.

SCOTCH YOK MECHANISIM

The **Scotch Yoke** (also known as **slotted link mechanism**^[1]) is a reciprocating motion mechanism, converting the linear motion of a slider into rotational motion, or vice versa. The piston or other reciprocating part is directly coupled to a sliding yoke with a slot that engages a pin on the rotating part. The location of the piston versus time is simple harmonic motion, i.e., a sine wave having constant amplitude and constant frequency, given a constant rotational speed.

OBSERVATION: In my observation I found that scotch yok mechanism is a simple mechanism, the rotary motion of pin convert into linear motion.

APPLICATION: It is used to help of making double hack jaw, reciprocating pump, beam engine and two make toys

CONCLUSION: The scotch mechanism convert the linear motion of a slider into a rotational motion, or vice versa.

RACK AND PINION:

A **rack and pinion** is a type of linear actuator that comprises a circular gear (the pinion) engaging a linear gear (the rack), which operate to translate rotational motion into linear motion. Driving the pinion into rotation causes the rack to be driven linearly. Driving the rack linearly will cause the pinion to be driven into a rotation.

APPLICATION: in a rack railway, the rotation of a pinion mounted on a locomotive or a railcar engages a rack between the rails and forces a train up a steep slope.

A generating rack is a rack outline used to indicate tooth details and dimensions for the design of a generating tool, such as a hob or a gear shaper cutter.^[1]

RECIPROCATING MOTION:

7

Reciprocating motion also called reciprocation, is a repetitive up and down or back and forth linear motion. The piston moves in a reciprocating motion, which is converted into circular motion of the crankshaft, which ultimately propels the vehicle or does other useful work.

OBSERVATION: A depicts a mechanism utilized as a system that converts the reciprocating linear motion of an automobile engine into rotary motion.

APPLICATION: Linear drives an assembles for winding, spooling reciprocating, positioning and indexing linear motion. Eliminate complex control system from linear application.

MOTION IS RELATIVE:

The statement that motion is relative is an important concept in physics. The meaning behind this statement is that the motion of an object is relative to either the frame of reference of the observer, or to another distinct frame of reference. This is important because the observed motion may appear different depending on which frame of reference it is being observed from. Because of this, relative velocity must be used to explain movement within a certain frame of reference. An example of this would be a person riding on a bus who we will call Bob. People on the bus observing Bob sitting in his seat, would observe that Bob is not be moving relative to the movement of the bus. However, these same people can observe that Bob is moving relative to an object located outside the bus.

*Examples are:-

- ✓ If two cars are moving with same velocity parallel to each other. The observer in one of the car will observe that the other car is stationary with respect to his car.
- ✓ If two trains crosses each other, it seems to be that the other train is moving with very high velocity. This is due to the relative velocity which is the sum of the velocity of the observer train and the other train.

OBSERVATION: +

Basically we know we are rest on the earth but I found that all objects are moving around.

CONCLUSION: Relative motion is the calculation of the motion of an object with regard to some other moving object

Thus the motion is not calculated with reference to the earth, but is the velocity of the object in reference to the other moving object as if it were in a static state.

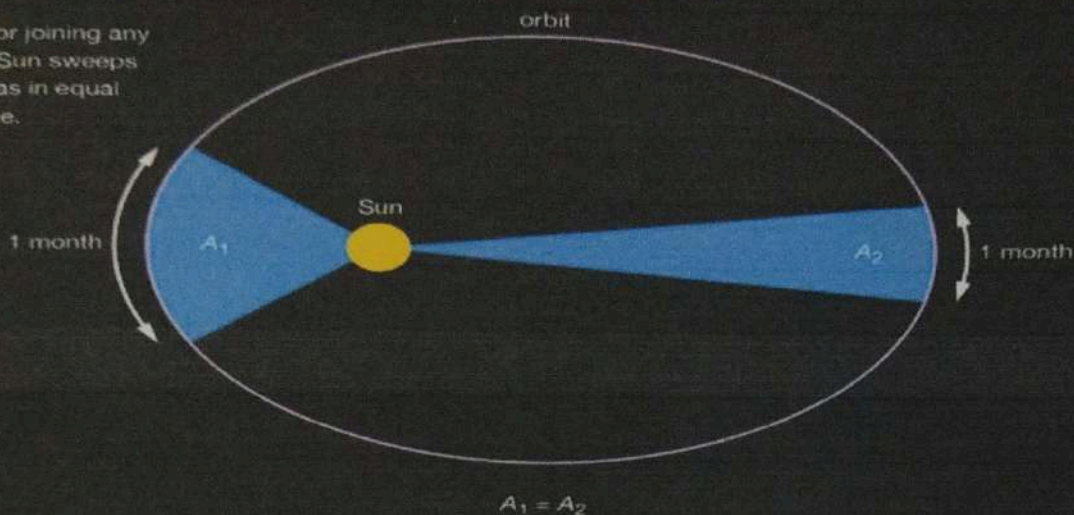
Kepler's three laws of planetary motion can be stated as follows:

- (1) All planets move about the Sun in elliptical orbits, having the Sun as one of the foci.
- (2) A radius vector joining any planet to the Sun sweeps out equal areas in equal lengths of time.
- (3) The squares of the sidereal periods (of revolution) of the planets are directly proportional to the cubes of their mean distances from the Sun.

Kepler's laws of planetary motion

Second law

A radius vector joining any planet to the Sun sweeps out equal areas in equal lengths of time.



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Kepler's laws of planetary motion

Third law

The squares of the sidereal periods (P) of the planets are directly proportional to the cubes of their mean distances (d) from the Sun.

$$P \times P = k (d \times d \times d)$$

$$P^2 = kd^3$$

$$\frac{P^2}{d^3} = k$$

where k is a constant

planet	period (P , year)	period squared	mean distance (d , AU)	mean distance cubed	P^2/d^3
Mercury	0.24	0.06	0.39	0.06	0.99
Venus	0.62	0.38	0.72	0.38	1.02
Earth	1.00	1.00	1.00	1.00	1.00
Mars	1.88	3.53	1.52	3.51	1.01
Jupiter	11.86	140.66	5.20	140.61	1.00
Saturn	29.46	867.89	9.58	879.22	0.99
Uranus	84.01	7057.68	19.20	7077.89	1.00
Neptune	164.80	27159.04	30.10	27270.90	1.00

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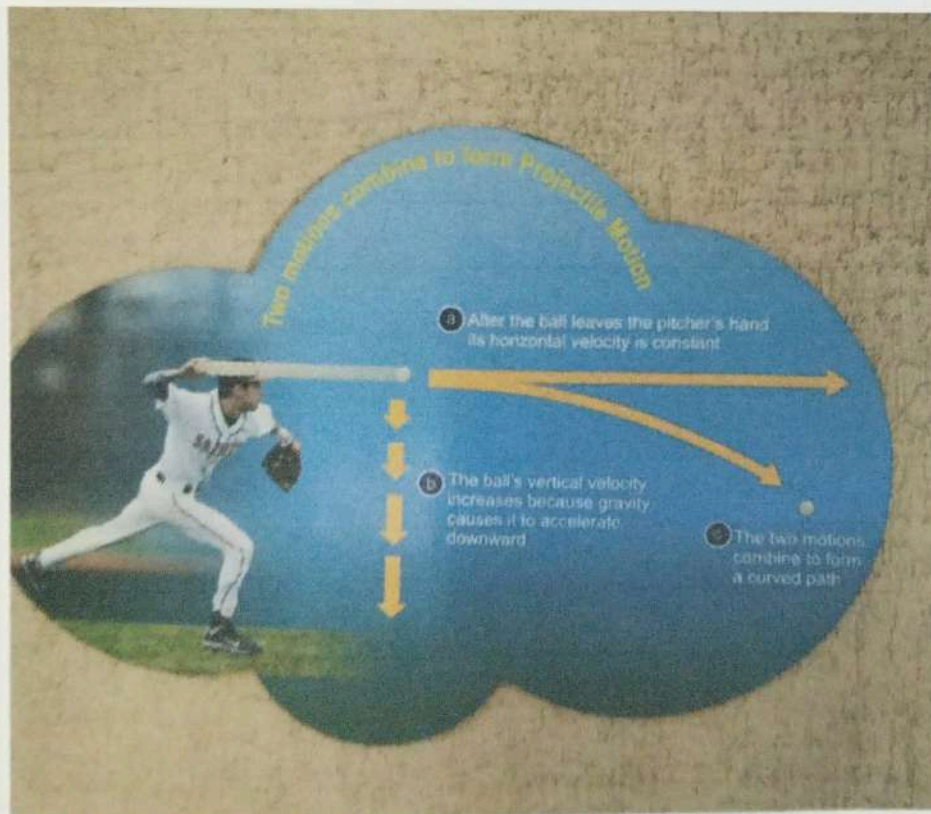
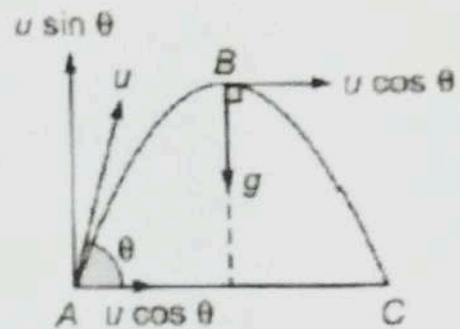
Kepler's second law:- Kepler's second law of planetary motion. A radius vector joining any planet to the Sun sweeps out equal areas in equal lengths of time.

Kepler's third law :- Kepler's third law of planetary motion. The squares of the sidereal periods (P) of the planets are directly proportional to the cubes of their mean distances (d) from the Sun

Projectile Motion

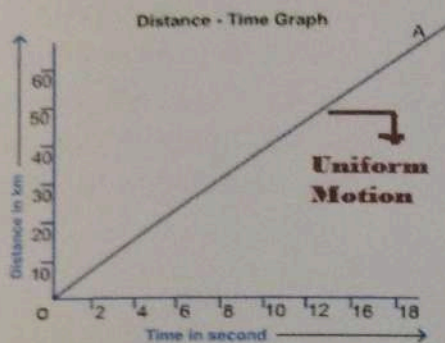
Projectile refers to an object that is in flight after being thrown or projected. In a projectile motion, the only acceleration acting is in the vertical direction which is acceleration due to gravity (g). Equation of motion, therefore, can be applied separately in X-axis and Y-axis to find the unknown parameters.

Some examples of Projectile Motion are Football, A baseball, A cricket ball, or any other object. The projectile motion consists of two parts – one is the horizontal motion of no acceleration and the other vertical motion of constant acceleration due to gravity. The projectile motion is always in the form of a *parabola* which is represented as: $y = ax + bx^2$



Uniform Motion

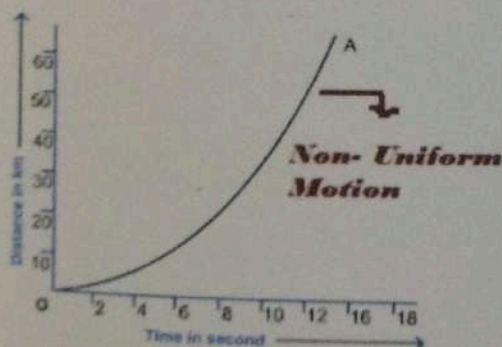
A body is said to be in uniform motion if it travels equal distances in equal intervals of time, no matter how small these time intervals may be. If we draw distance time graph for uniform motion then it will be straight line. For better understanding we can take an example, a car is running at a constant speed say 20 meters per second, will cover equal distances of 20 meters, every second, so its motion will be uniform



More examples of Uniform motion are: Movement of hands of a watch, Rotation and revolution of the earth, Movement of the blades of a ceiling fan etc.

Non-Uniform Motion

A body is said to be in a non-uniform motion if it travels unequal distances in equal intervals of time. For example, if we drop a ball from the roof of a tall building, we will notice that it will cover unequal distances in equal intervals of time. Like, 5 meters in the 1st second, 15 meters in the 2nd second and so on. Thus, a freely falling ball will covers smaller distances in the first '1 second' and larger distances in the later '1 second' intervals. Therefore, we can say that the motion of a freely falling body is an example of a non-uniform motion. The distance-time graph of the non-uniform motion is a curved line. Non-Uniform motion is also known as accelerated motion.



More examples of non-uniform motion are: Oscillation of pendulum, the motion of a train, a person jogging in the park etc.