EPC-2: Disaster Management

Unit No. 1

Introduction to Disaster Management

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Meaning & Concept of Disaster

- The word disaster is derived from French word **desastre,** which means **badaster** or **badstar** in Greek.
- The roots of the word disaster came from the **astrological theme** where they called **destruction of a star as a disaster.**
- It was believed an action due to unfavorable position of planets or the act of God

Definitions of Disaster

- **According to World Health Organization (WHO),** "A disaster can be defined as any occurrence that causes damage, ecological disruption, loss of human life or deterioration of health and health services on a scale sufficient to warrant an extra ordinary response from outside the affected community or area."

Definitions of Disaster

- **According to American Red Cross (ARC),** "A disaster can be defined as an occurrence either nature or manmade that causes human suffering and creates human needs that victims cannot alleviate without assistance“

- **The Oxford English Dictionary** defines disaster as "anything that befalls of ruinous or distressing nature; a sudden or great misfortune, mishap, or misadventure; a calamity"

Definitions of Disaster

- **The Disaster Management Act, 2005** defines disaster as "a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or manmade causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area"

Definitions of Disaster

- **The United Nations defines disaster as** "the occurrence of sudden or major misfortune which disrupts the basic fabric and normal functioning of the society or community“

- A sudden event that causes large scale damage to life, property & social aspects of a nation or society is called as disaster.

Definitions of Disaster

- Thus, these definitions emphasize several features of disasters such as:
  - They usually occur suddenly.
  - Their impact is experienced over a long period.
  - Overcoming the impact of disasters takes a lot of effort.
  - They can be natural or man-made.
  - They lead to sudden disruption of normal life, causing severe damage to life and property
  - The available social and economic protection mechanisms are inadequate to cope.

Relationship between hazard, vulnerability and disaster

- **Hazard** is a potentially damaging physical event.
- **Vulnerability** refers to susceptibility of a place, the extent to which a community's structure, services or environment are likely to be damaged or disrupted by the impact of a hazard.
- **Disaster** is a result of a hazard impacting on a vulnerable population and causing damage, casualties and disruption,

  i.e. ***Hazard × Vulnerability = Disaster***
- When a hazard becomes uncontrolled and damages population and property on large scale, it becomes disaster.

Management

- Management is a process of dealing with or **controlling a situation**. It includes the strategy of **organizing** and **coordinating** the efforts to accomplish some objectives through the application of available resources, such as financial, natural, technological and human.

Disaster Management

- Disaster management is a plan that has been framed strategically and a process that has to be administered and employed to protect critical assets resulting from natural or human made calamities.

Disaster Management

- Disaster Management can be defined as the **organization** and **management** of **resources** and **responsibilities** for dealing with all humanitarian aspects of emergencies, in particular preparedness, response and recovery in order to bring down the impact of disasters.

Disaster Management

- Disaster Management is the discipline of dealing with and avoiding risks. It is a discipline that involves preparing, supporting and rebuilding when natural or human made disasters occur.

Disaster Management

- Disaster management is the prevention of disaster or making arrangement to face it and to attempt to minimize the losses caused due to disaster.
- Disaster management means all such measures that should be taken so that hazards can not become disaster.
- We cannot prevent the coming of many natural hazards, but can reduce their harmful effects through proper management, so that the loss of life and property can be minimized.

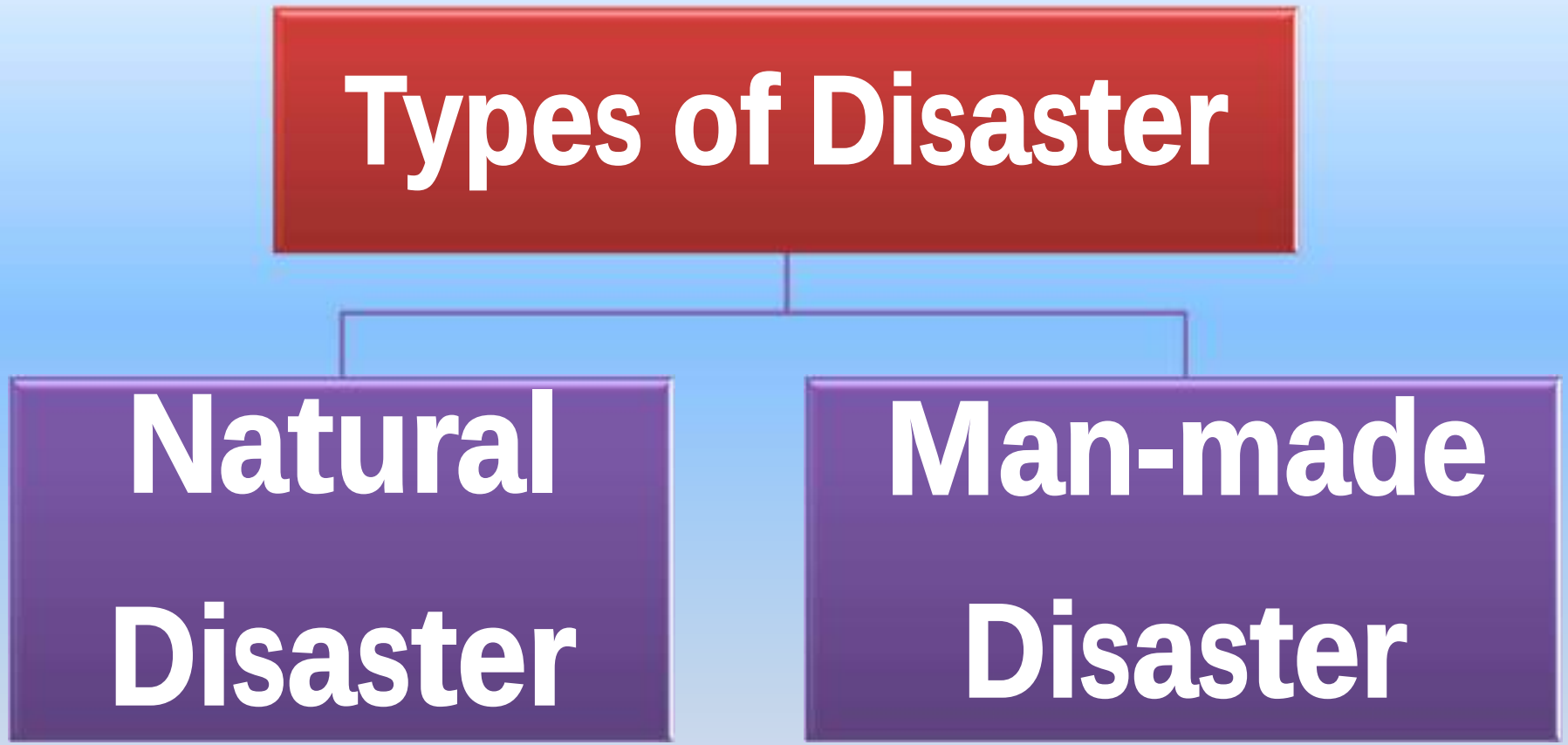
Disaster Management

- Disaster management is a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary for:
  - prevention of danger or threat of any danger
  - mitigation or reduction of risk of any disaster or its severity or consequences
  - capacity building
  - preparedness to deal with any disaster
  - prompt response to any threatening disaster situation or disaster
  - assessing the severity or magnitude of effects of any disaster
  - evacuation, rescue and relief
  - rehabilitation and reconstruction.

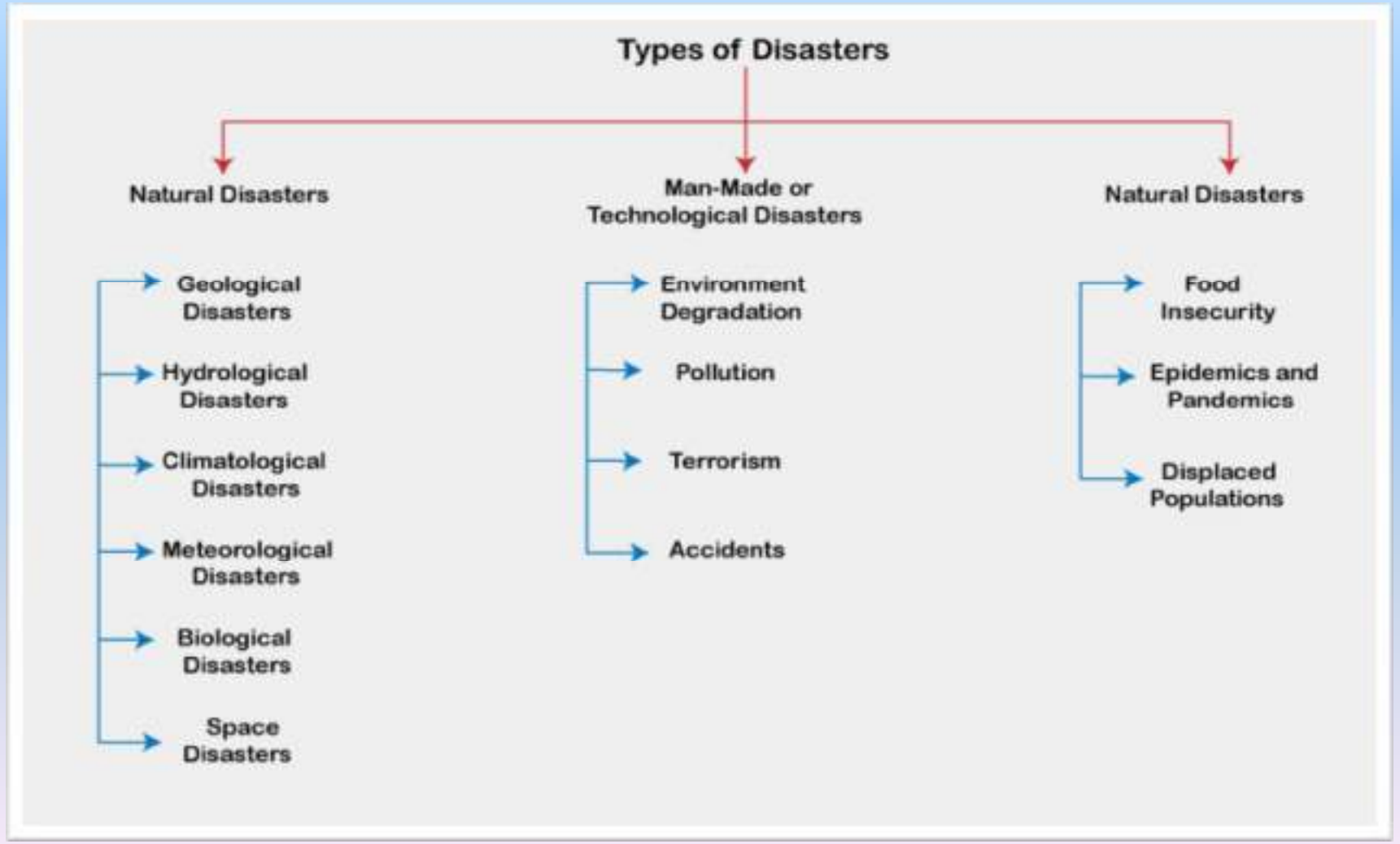
Types of Disaster

- Disasters can be categorized in various ways.
- As per severity, disasters are classified as **minor or major** (in impact as per loss of life).

- The most common way of categorizing disasters is based on the underlying cause or nature of origin as - **natural or man-made**.


Types of Disaster
Natural Disaster
Man-made Disaster

Types of Disaster



Types of Disaster

Natural Disaster

Natural Disaster

- **Natural disasters are those hazardous events which occur naturally.** They are caused by sudden changes in the environment.
- Natural disasters includes:
  - earthquakes,
  - cyclones,
  - volcanic eruptions,
  - forest fires,
  - tornadoes,
  - hailstorms,
  - thunderstorm,
  - very heavy snowfall,
  - very heavy rainfalls,
  - heat and cold waves,
  - floods,
  - Droughts, etc

Common Natural Disasters

Earthquakes

Volcanoes

Tsunamis

Landslides

Hurricanes

Tornadoes

Blizzards

Dust Storms

Floods

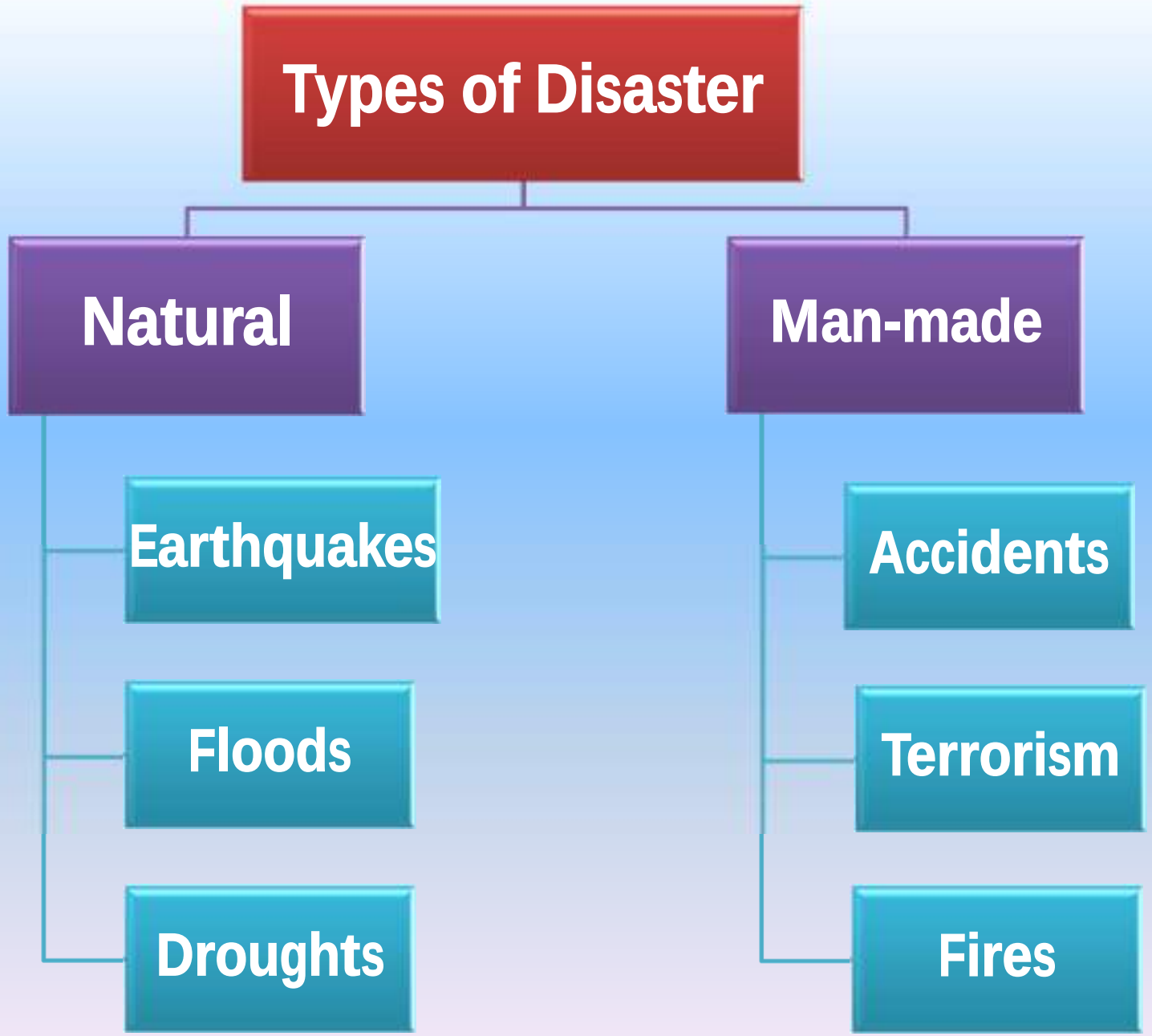
Droughts

Wildfires

Sink Holes

Natural Disaster

- Natural disaster can cause heavy loss of life and damage to physical structures, leading to huge financial losses.
- Every area is susceptible (likely to influenced) to its own set of natural disasters and thus it is important to take preventive measures accordingly. For example, the areas where tectonic plates are too close would be susceptible to earthquakes, whereas areas near volcanic formations would be more likely to suffer from volcanic eruptions.
- Governments must make necessary arrangements to protect people from area-specific natural disasters. This would ensure minimum damage.
- One effective way to reduce the impact of disasters is to use latest technology. For example, infrastructure and buildings can be strengthened to withstand natural disasters by using new construction technology and materials.


Types of Disaster
Natural
Man-made
Earthquakes
Floods
Droughts
Accidents
Terrorism
Fires

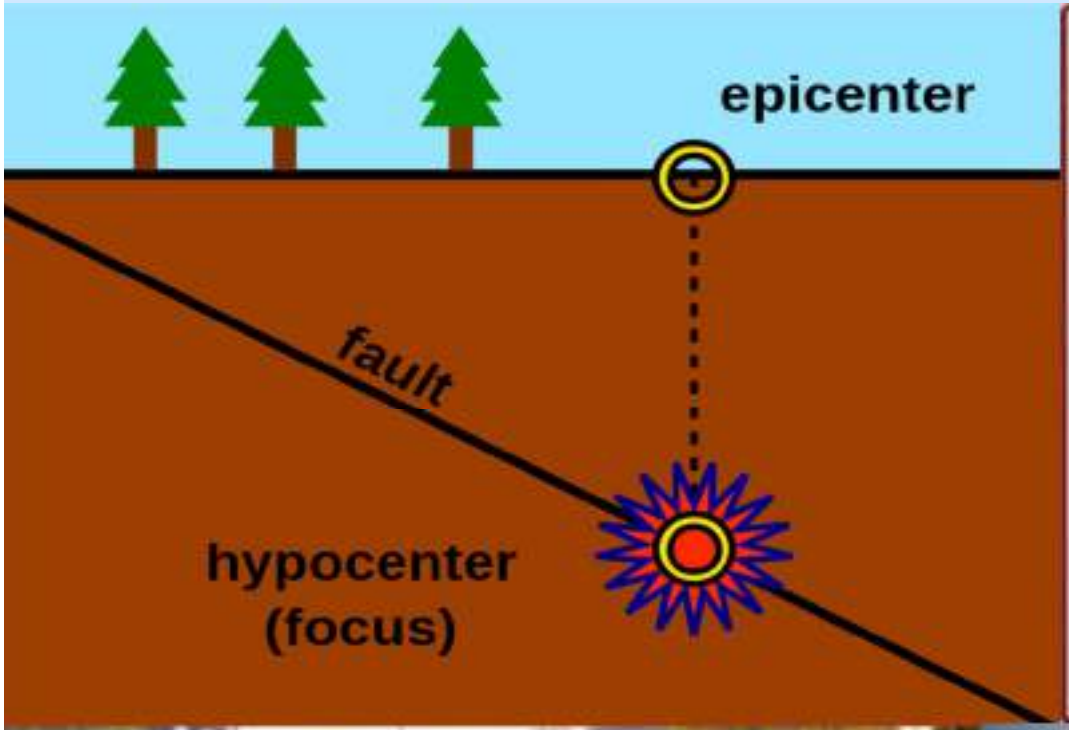
Earthquakes

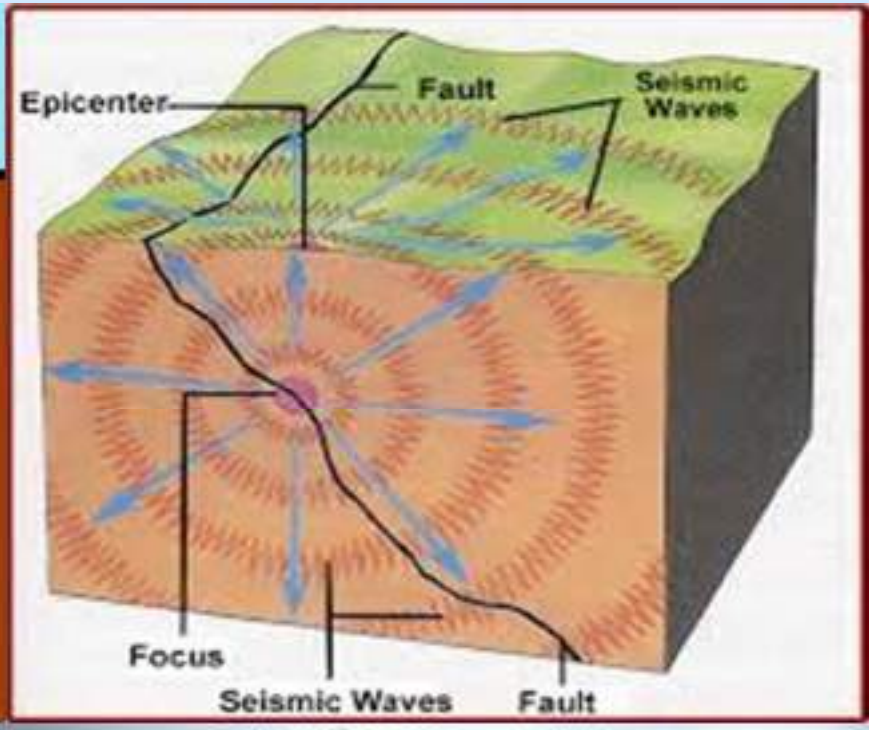
- Earthquakes are caused by a sudden shift or movement deep underground in the Earth's tectonic plates, causing the Earth's crust to shake violently, with vibrations varying in magnitude.
- On the surface, we see this as the shaking of the ground, causing damage to poorly built structures.
- Earthquake is the result of a sudden release of energy in the Earth's crust that creates seismic waves.
- Earthquakes occur unpredictably along fault lines and are capable of killing thousands of people.
- The most powerful earthquakes can destroy even the best built structures.
- Earthquakes can also cause other disasters including tsunamis and volcanic eruptions.
- In the past, seismologists used to estimate earthquake intensity using the Richter scale developed by Charles Richter.
- An American scientist, Charles F. Richter, developed a scale in 1935, based on indices, which could measure the intensity of an earthquake; this scale is called as **"Richter Scale"**.
- The instrument used for measuring the intensity of an earthquake is called a "**Seismograph**".
- However, today, the **moment magnitude scale,** which is an improved version of the Richter scale, is used by seismologists to measure the size of earthquakes in terms of the energy released.

Earthquakes

- An earthquake has a point of origin underground called '**focus**' or **hypocenter**.
- The point directly above the focus on the surface is called the '**epicenter**'.
- Most earthquakes occur on or near the edges of the earth tectonic plates, at cracks in the crust called as "**faults**".
- Earthquakes by themselves rarely kill people or wildlife. It is usually the secondary events that they trigger, such as building collapse, fires, tsunami (seismic sea waves) and volcano.
- It is estimated that nearly 20,000 earthquakes occur every year in the world.
- Many earthquakes occur on the north east cost of Asia. This is at the boundary of two of the earth's tectonic plates. A few countries that are more earthquakes prone are **China, Japan, Russia, Pakistan and India.**
- Many of these could possibly be avoided by better construction, safety systems, early warning and planning.
- Some of the most recent and disastrous earthquakes in recent times are:
  - The 2011 Japanese Earthquake, registering a magnitude of 9.0, triggered a massive tsunami. Over 15,000 people were killed in the disaster.
  - The 2010 Haiti Earthquake, registering a magnitude of 7.0, killed an estimated 100,000-150,000 people.
  - The 2004 Indian Ocean earthquake, the third largest earthquake in recorded history, registered a moment magnitude of 9.3. The huge tsunami triggered by the earthquake cost the lives of at least 229,000 people in 14 countries.
  - The 2001 Gujarat Earthquake, measuring 7.7 on the moment magnitude scale, killed at least 20,000 people.

Earthquakes





Causes of Earthquakes

1) **The earth tectonic plates:** Most of the earthquakes are caused due to movement at the boundary of the tectonic plates below the earth's crust. The slightest movement along the boundary of tectonic plates can cause minor or major earthquake at the epicenter.
2) **Volcanic eruption:** Many times due to volcanic eruption earth's surface get vibrated which results in earthquake.
3) **Pressure of Lava:** The center of the earth contains hot lava, which comprises of minerals and metals in a molten, semi-liquid form. Due to the high temperature, pressure is entered on the rock layer and this pressure can cause raptures (cracks) in the earth's surface.
4) **Mining and deep construction:** Activities such as intensive mining and construction of huge dams can lead to imbalance and pressure on the surface of the earth there by causing earthquakes.
5) **Change in the underground rocks:** Due to the pressure on the underground rocks, these rocks can breaks down which causes vibrations and results in earthquakes.
6) **Nuclear Tests:** Activities like atomic experiments or nuclear tests and mine-blasting can also cause earthquakes.

Effects of Earthquakes

1) **Shaking and Ground Raptures:** One of the common effects of earthquake is shaking of the earth's surface and ground raptures. Ground rapture is a visible breaking and displacement of the Earth surface along the trace of the fault which may be of several meters in the case of major earthquake. Ground raptures is a major risk for large engineering structures such as dams bridges and nuclear power stations. This basically results in more or less severe damage to buildings and other rigid structures. The magnitude of the effects depends on the earthquake magnitude, the distance from the epicenter, etc.

2) **Landslides:** Earthquake can lead to losing of the soil of hills and mountains and causes big landslides. The danger of landslides remains even after the earthquake occurs and can hamper rescue operations.

3) **Fires:** Earthquake can cause fires by damaging electrical power or gas lines. In the case of ruptured (cracked) water mains (Pipe lines) and a loss of pressure in it, it may become difficult to stop the spread of a fire once it has started.

Effects of Earthquakes

4) **Tsunami:** Tsunamis are long sea-waves produced by the sudden or abrupt moment of large volumes of water, including when an earthquake occurs at sea. Tsunami can travel 600 to 800 km per hour depending on water depth. Large waves produced by an earthquake can over-run nearby coastal areas in a matter of minutes. Tsunami can also travel thousands of kilometers across open ocean and cause destruction on large scale.

5) **Floods:** Floods may be secondary effect of earthquakes, if dams are damaged. Earthquakes may cause landslips to river dams, which collapse and cause floods.

6) **Change in water level / direction:** Due to earthquake many times the water level under the earth's surface decreases or increases. It may also cause change in the direction of the flow of rivers.

7) **Loss of human life:** An earthquake may cause injury and loss of human, animal and plant life.

8) **Loss of property**: An earthquake may cause destruction of infrastructure like buildings Bridges, roads, railway tracks and general property damage. It also causes different diseases, lack of basic necessities, economic imbalance, etc.

Floods

- Floods are the most common and frequently occurring natural disaster in all parts of the world.
- Heavy or prolonged rainfall is one of the main reasons of floods.
- A flood is an overflow of water onto land. When the quantity of water flowing in the river increases beyond its capacity, it starts flowing into nearby areas. This area gets submerged, and this leads to loss of life and property.
- Generally, occurrences of floods are more frequent in low-lying lands. People living in the low lying areas have to vacate their houses and seek shelters at higher level.
- Floods present a significant danger with enough force to sweep away massive objects such as houses, cars and trees.
- Flood can occur quickly, or over a long period and may last days, weeks or longer.

Floods

- Sometimes, along with heavy rains, the drainage system gets choked, due to which the water gets logged and find no outlet. The water level then starts rising and submerges the area and caused flood. This was happened in Mumbai, on 26th July, 2005. The damage was as much due to rain as it was due to poor drainage system.
- There is a growing feeling that the incidence and intensity of floods has grown alarmingly over the years. A major cause is the increased encroachment of flood plains because of development and population pressure.
- Among all the natural disasters affecting India, frequent river floods are the most devastating, which cause maximum damages of life and property. Total flood prone areas in India are 40 million hectares, out of which 9.4 per cent falls in Assam. Besides draught, about 90 per cent damages to crops are only due to flood.

Causes of Floods

1) Heavy rain in low-lying area or catchment area.
2) Melting of snow and ice on a large scale due to which the level of water in the rivers increases.
3) Overflowing dams, or a crack in them, or an earthquake in an area where a dam is built can cause heavy flooding.
4) When soil becomes lose due to lack of trees and vegetation and get deposited in the river due to soil erosion, which is caused by deforestation. There is a change in the river-basin due to excessive soil deposits carried by the rain into the river. The river then throws the excess water out of the river-basin.
5) Closing of drainage system, especially in urban areas.
6) Floods are also caused by storms or cyclone or tsunamis created in the sea, which cause huge waves to floods the shore areas.

Effects of Floods

1) Floods cause a lot of destruction to human, animal and plant life. Humans and animals get drowned and trees get uprooted in the flood water.
2) Loss of property: Flood water cause damage to buildings and houses, shops and offices. Goods stores in shops and houses are also spoilt due to flood water.
3) Roads and railway tracks are washed away due to which transport and communication is disrupted.
4) Flood affected areas are an ideal breeding ground for mosquitoes, flies and other insects and there is also a danger of epidemic spreading in such areas.
5) Floods destroy crops on a large scale, this can cause shortage of food.
6) Due to flood water, the upper layer of fertile land is washed away. This makes the land infertile and barren.
7) Soil erosion.

DRAUGHTS

- Inadequate (less) or no rainfall leads to acute shortage of water, which situation is referred to as a draught.
- A drought is an event of prolonged shortage in the water supply, whether atmospheric surface water (sea, ocean, rivers, lakes, etc) or groundwater.
- Drought is unusual dryness of soil, resulting in crop failure and shortage of water for other uses, caused by significantly lower rainfall than average over a prolonged period. Hot dry winds, high temperatures and consequent evaporation of moisture from the ground can contribute to conditions of drought.
- A drought can last for a month or years. Drought is a recurring feature of the climate in most parts of the world.
- The outcome of drought is “famine” that is an acute shortage of food and water, which leads to loss of human, animal and plant life.
- Droughts happen when there is not enough rain for a long period of time.
- Sometimes, a drought takes decades to develop fully, and they are very difficult to predict.

DRAUGHTS

- Unlike other natural disasters, drought happen very slowly over a period of time.
- Environmental phenomena like climate change, increase in temperature and change in the local landscape (deforestation) makes a difference when it comes to droughts.
- Droughts can be very dangerous for people living in area with not enough food or water.
- Deaths can occur from lack of food and water and there are lots of health problems too when there is not enough water, crops, which means there isn't enough food for people.
- It also means that farmers lose money and the area can become very poor. Where a region is very poor, and doesn't have enough food or water, arguments can happen over who should be able to get the limited food, which can escalate into rights and wars.
- Although droughts can persist for several years, even a short, intense drought can cause significant damage and harm the local economy.

Causes of DRAUGHTS

1) **Low level of rainfall:** Little or no rain is one of the major cause of drought. Lower than average level of rainfall over a long period of time can dry the soil and lead to crop failures. Climate disturbance like extremely high temperatures and changes in wind pattern can lead to lower than normal rainfall in an area. Droughts are usually common in places where normal levels of rainfall are generally low.
2) **Dry season:** Droughts are common in areas experiencing long dry seasons. Since humidity level are low during this season, water evaporation rate are high. As a result, water bodies like lakes and rivers dry up completely. Vegetation cover and agricultural crops dependent on these water bodies also die due to the absence of water. Higher temperature during the dry season further promote the evaporation of water and thus worsen the droughts**.**
3) **Human activities:** Human activity can directly trigger exacerbating factors of droughts such as over-farming, excessive irrigation, deforestation, and erosion adversely impacting the ability of the land to capture and hold water.
4) **Geographical location:** Droughts can also be caused due to the geographical location of an area. For a person who lives near a place where most of the water used comes from a river, a draught can be caused due to places upstream not receiving enough water.
5) **Global warming:** Global warming or climate change, is a major factor causing droughts. It is unfortunate that human activities contribute to the emission of greenhouse gases, which in turn cause the abnormal rise of global temperature. This directly contributes to dry conditions, dryer weather and droughts.

Effects of DRAUGHTS

1) It is impossible to live without food and water. There is a large scale loss of human life, animal life and plant life.
2) People, and particularly children suffer from malnutrition.
3) Droughts lead to the drying up of wells, springs, lakes and other sources of water.
4) Depletion (lowering) in the level of groundwater due to less rainfall. It causes the drying up of wells and tube-wells.
5) Drying up of land causes the land to become barren and uncultivable.
6) Sometimes, people hold food illegally, and create artificial shortage of food. They then sell this food at inflated prices and spread insecurity in the society.
7) Industrial growth is adversely affected due to destruction of crops. The agro-based industries are the worst affected. This, in turn, leads to unemployment and large scale migration and regional imbalance.
8) Wildfire risk: Drought conditions increase wildfire risk. As plants and trees wither and die from a lack of rainfall, all of which are associated with drought- they becomes fuel for wildfires, which affect the economy, the environment and the society in many ways.

Effects of DRAUGHTS

- Periods of drought can have significant environmental, agricultural, health-related economic and social Consequences or effects. The effect varies according to vulnerability.
- For example, subsistence farmers are more likely to migrate during drought because they do not have alternative food sources. Areas with population that depend on subsistence farming as a major food source are more vulnerable to drought-triggered famine. Drought is rarely, if ever, the sole cause of famine; socio-political factors such as extreme widespread poverty play a major role. Drought can also reduce water quality, because lower water flows reduce dilution of pollutants and increase contamination of remaining water sources.
- A few common consequences of drought include:
  - Diminished crop growth or yield productions and carrying capacity for livestock
  - Dust storms occur when drought hits an area suffering from desertification and erosion
  - Habitat damage, affecting both terrestrial and aquatic wildlife
  - Malnutrition, dehydration and related diseases
  - Mass migration, resulting in internal displacement and international refugees
  - Reduced electricity production due to insufficient available coolant for power stations and reduced water flow through hydroelectric dams
  - Shortages of water for industrial users
  - Social unrest
  - War over natural resources, including water and food
  - Wildfires, such as Australian bushfires, are more common during times of drought

Man-made Disaster

Man-made Disaster

- These are the hazards that are caused by humans or their action either deliberately or by accident.
- Man-made disasters includes:

- industrial and chemical accident
- road and railway accidents
- aviation disasters
- building collapse
- communal violence
- bomb blasts
- Explosions
- Fires
- accidents,
- electricity failure,
- chemical and nuclear radiation,
- terrorism,
- war, etc

Man-made Disaster

- Some of the disasters can be associated with human activities such as:
  - industrialization,
  - deforestation,
  - urbanization
- This invariably produce air pollution, water pollution those in turn cause **global warming**, **climate change**, **depletion of glaciers**, **depletion of ozone layer**, **increase in ultraviolet radiation, avalanches, flash floods and water-logging in low lying areas**.
- These may be dangerous to life, physical elements or economic components of the environment and the resultant damage could prove disastrous for the whole economy.
- Better technology, sufficient precautions and careful working with technology are the only steps which can prevent or lessen the damage from technology-related disasters.

SPECTRUM MUMBAI

MAN-MADE DISASTERS - 1

CHART NO. 494
www.spectrumchart.com

TRAIN ACCIDENT/DERAIL

AVIATION INCIDENT (Plane crash)

SHIPWRECK (Accident)

TRAFFIC COLLISION (Road accidents)

STRUCTURAL COLLAPSE (Building collapse)

BRIDGE COLLAPSE

WILDFIRES - Human negligence like discarded cigarettes.

SPACE ACCIDENT

ARSON-The criminal setting a fire with intent to cause damage.

Terrorism

- Terrorism is a controversial term with varied definitions. One definition means a violent action targeting civilians exclusively. Another definition is the use or threatened use of violence for the purpose of creating fear in order to achieve a political, religious, or ideological goal. Under the second definition, the targets of terrorist acts can be anyone, including civilians, government officials, military personnel, or people serving the interests of governments.
- Definitions of terrorism may also vary geographically. In Australia, the Security Legislation Amendment (Terrorism) Act 2002, defines terrorism as "an action to advance a political, religious or ideological cause and with the intention of coercing the government or intimidating the public", while the United States Department of State operationally describes it as "premeditated, politically-motivated violence perpetrated against non-combatant targets by sub national groups or clandestine agents, usually intended to influence an audience".[2]

STAGES/ PHASES OF DISASTER MANAGEMENT

- Generally, from the view of normal community, disaster management is an organization, which supports for the community only in relief operation and rehabilitation activities. But apart from the relief operation the main motto of the organization is to visualize the worst situation in prior and plan for the appropriate mitigation measures.
- Disaster Management implies the systematic process of using administrative decisions, organization, operational skills, and capacities to implement policies, strategies and coping capacities of the society and communities to lessen the impact of natural hazards and related environmental and technological disasters.
- These comprise all forms all activities including structural and non-structural measures to avoid (prevention) or to limit (mitigation and preparedness) adverse effects to hazards

STAGES/ PHASES OF DISASTER MANAGEMENT

- The phases of disaster are the sequence in which disaster occurs laying its effects and this makes its management more needed.
- The phases of disaster are broadly classified into three types namely, pre-disaster phase, during disaster phase and post disaster phase.
- There are three key stages of activities in disaster management:
  1) **Before a disaster: to reduce the potential for human, material, or environmental losses** caused by hazards and to ensure that these losses are minimized when disaster strikes;
  2) **During a disaster: to ensure that the needs and provisions of victims are met to** alleviate and minimize suffering; and
  3) **After a disaster: to achieve rapid and durable recovery which does not reproduce** the original vulnerable conditions.

STAGES/ PHASES OF DISASTER MANAGEMENT

STAGES/ PHASES OF DISASTER MANAGEMENT

The three key stages or phases of activities that are taken up within disaster management are:

1) **Pre-Disaster Phase:**

This phase meant before the disastrous event for which the proactive action plan is taken for the reduction of potential impact to the human as well as damage to the environment. This action plan taken before the disaster ensures the losses and damages to the minimal level. This phase comprises of certain systems to be adapted for the reduction of risk in case of disaster they are as follows:

- **i) Prevention:** The misleading concept engulfed to the community is with the term prevention, it doesn't mean that preventing the natural hazard or man-made disaster. This system of prevention is adapted in pre- disaster phase to reduce the intensity of impact and lessen the damage to the environment and human.
- **Ii) Mitigation: The reduction of risk in any disaster includes the vital activities of** reducing the risk to the acceptable level and reducing the scale of impact of disaster to the least level. The system mitigation is put forth for the elimination of root cause and the reduction of vulnerable condition to the minimal level. Further adding, the mitigation measures also aims to reduce the vulnerability level in terms of physical, social and economic threats. Therefore, mitigation involves of varied levels of proactive measures implemented with help the experts like medical professionals, engineers, relief force and other authorized persons. Hence the scale and severity of natural hazards are reduced with the adaptation of various engineering strategies known as Mitigation.

STAGES/ PHASES OF DISASTER MANAGEMENT

- **iii) Preparedness: This system plays a vital role in this phase which involves the** government, vulnerable communities and each and every individual responsibility to enact accordingly to manage the disastrous situations efficiently. This phase of system implements the suitable emergency plans, effective communication to the responders and sensitize the public with mock drill. The system also enhances the layout of rescue operations and evacuations plans from the vulnerable areas to the safest heaven. This system can be success only if there is proper planning, coordination and apportionment of responsibilities with sufficient financial support from the government.
- **iv) Early Warning: This system encrypts the process of monitoring closely the existing** situation and effectively communicates to the community approaching to the vulnerable area. The early warning system shall be activated in different perspective by various departments. The Indian Meteorological Department is one of most sensitive department who provides early warning to the community abruptly in accordance to the weather pattern.
- **v) Disaster Effect: This states an instantaneous event of natural hazard taking place and** affecting the vulnerable elements. The duration of disastrous event directly depends on the type of hazard occurred at the existing level.

STAGES/ PHASES OF DISASTER MANAGEMENT

2. **During a Disaster (Disaster Occurrence): Initiatives taken to ensure that the** needs and provisions of victims are met and suffering is minimized. Activities taken under this stage are called emergency response activities. This is a critical phase to ensure the victim to be responded immediately with a relief force and also provide the victim with the basic needs to minimize the level of pain.

i) Response: This system aims to provide an instantaneous response to protect the life of the victim, enhance the affected population with the support in terms of both mentally and physically. This response system is the aid provided to the victim in limited manner which might be mandate for their survival. The limited aids provided by the response team are first aid to the victim, emergency shelter for the affected community, food and drinking water facilities and transportation of vulnerable refugees to the safe heaven. To the greater extent this also have the capability to provide the temporary repairs to infrastructure damaged in any disasters.

STAGES/ PHASES OF DISASTER MANAGEMENT

3. After a Disaster (Post-Disaster): Initiatives taken in response to a disaster with a purpose to achieve early recovery and rehabilitation of affected communities, immediately after a disaster strikes. These are called as response and recovery activities. This is a reactive phase where the system starts to work only aftermath of any disasters. After the phase of response, the hasty recovery is mandate for the affected community. The relief personnel should ensure that all the affected victims are rescued and provided them with all basic needs. After the calm of disaster, this system must provide the affected community with reconstruction of their houses and rehabilitation support for the affected victim.

i) Recovery: This phase implements the activities to recover the affected victim from the place where the incident occurred. The recovery of fatalities also needed for the operation team to be executed after the disaster. This system aims to ensure that the affected population should restore their lives in all aspects. This activity continues until the systems returns back to the normal.

ii) Rehabilitation: This system includes assisting the affected victim with basic essential needs, temporary public services and also temporary shelter. This system should also be capable of providing short term measure to assist them for the recovery in long term.

iii) Reconstruction: This phase challenges to bring back the community as more resilient by repairing the damaged buildings, reconstruction of retrofitting structures, and other emergency facilities. This system enables the long term development of community in more sustainable manner, so that if the disaster strikes again the loss shall be acceptable and minimal.

UNIT NO. 3 : DISASTER RISK REDUCTION

- **What is DISASTER RISK REDUCTION (DRR)?**

- Disaster risk reduction is the concept and practice of reducing disaster risks through systematic efforts to analyze and reduce the causal factors of disasters.

- Disaster risk reduction (DRR) is a systematic approach to identifying, assessing and reducing the risks of disaster.

- Disaster risk reduction (DRR) is the process of protecting the livelihoods and assets of communities and individuals from the impact of hazards.

- The purpose of disaster risk reduction is to minimize vulnerabilities and disaster risks throughout a society in order to avoid or to limit the adverse impacts of natural hazards, and facilitate sustainable development.

- The hazards can be natural or human derived, and include earthquakes, floods, cyclones, droughts, price spikes, conflict and contagious diseases. DRR limits the negative impacts of these events by working to reduce their size, strength or how often they occur, and building the capacity of the people exposed to these hazards to anticipate, survive, and recover from them.

❖ DISASTER RISK REDUCTION IN SCHOOLS AND COLLEGES:

❖ Schools are densely populated places that may have youths and small children, who are among the most vulnerable groups in society. It has been seen that during disasters schools and school children are the most affected. To reduce this vulnerability, particularly for schools, it is important to have a School Disaster Management Plan.

❖ National Disaster Management Authority, of the Ministry of Home Affairs, strongly feels that there has to be a structural, as well as non-structural intervention, to ensure the safety of the children. Structural intervention would include strict check on the guidelines set up for school buildings, while non-structural would mean educating the staff, teachers, and students about disaster management.

❖ The Ministry insists that every school adopt a school safety programme targeting the educational institutions, emergency officials, teachers, students and even the community at large. Under this programme, the students learn about safety measures, thus becoming future disaster managers, while a disaster resilient society is built by way of educating the community.

❖ Some of the ways and means of educating the child are:

- Building awareness by way of campaigns, rallies etc
- Conducting mock drills for fire disasters and earthquakes
- First aid training
- A clear picture of command and control, so that in case of an emergency there is no chaos
- Use of the fire extinguisher

With terror attacks on schools all over the world, India should also prepare itself for any such eventualities. The schools must take necessary precautions against entry of unknown individuals to schools by issuing an identity card even for the parents. The security checks should be strict. The students may be given some tips as to how to behave in a hostage situation by professional counselors.

AGENCIES FOR DISATER MANAGEMENT AT STATE LEVEL

❖ AGENCIES FOR DISATER MANAGEMENT AT STATE LEVEL:

➢ The Disaster Management Act 2005 provides the legal and institutional framework for disaster management in India at the national, state and district levels. In the National policy of India the primary responsibility of disaster management vests with the State Governments. The Central Government lays down policies and guidelines and provides technical, financial and logistic support while the state and district administration carries out most of the operations in collaboration with central and state level agencies.

➢ The DM Act, 2005 mandates the State Governments, inter alia, to take measures for preparation of state DM plans, integration of measures for prevention of disasters or mitigation into state development plans, allocation of funds, establishment of early warning systems and to assist the Central Government and other agencies in various aspects of DM.

❖ State Disaster Management Authority (SDMA):

•Section 14 of National DM Act 2005 mandates each State to establish State Disaster Management Authority (SDMA).

•At the State Level the SDMA, headed by the Chief Minister, lays down policies and plans for disaster management.

•It is also responsible to coordinate the implementation of the State Plan, recommend provision of funds for mitigation and preparedness measures and review the developmental plans of the different departments of the State to ensure integration of prevention, preparedness and mitigation measures.

•The Maharashtra State Disaster Management Authority was constituted in 2006.

❖ State Executive Committee (SEC):

•In section 20 of NDMA Act there is provision that the State Executive Committee will be formed under the chairmanship (ex-officio) of Chief Secretary with four secretaries to the government of the State of such departments as the State Government my think fit, ex officio, as committee members.

•The Maharashtra State Executive Committee was established in 2006.

•The State Executive Committee shall have the responsibility for implementing the National Plan and State Plan and act as the coordinating and monitoring body for management of disaster in the State.

❖ State Disaster Response Force (SDRF):

•Maharashtra is a multi-disaster prone State. It is vulnerable to natural disasters like floods, cyclones, earthquakes, landslides etc. as well as manmade disasters like fire, building collapses, etc.

•The National Disaster Response Force has been constituted at the National level for effective response to such disasters. It is also the mandate of the NDMA that every state has to become self-sufficient in this regard and constitute a SDRF of their own. Accordingly the proposal for creation of a standalone SDRF was tabled before the Cabinet of Ministers and was unanimously approved.

❖ State Emergency Operation Centre (SEOC):

•This is a facility that will be primarily established at Mantralaya premises at Mumbai.

•To create redundancy in case of emergency, additional EOC could be established and kept as reserve for activation on orders at the Centre for Disaster Management, Pune within this plan period.

•Both the EOCs should be identically functional.

•The EOC at Mantralaya will function 24 X 7 round the year.

•During non-emergency time it will function as a 'Watch and Ward' regime and during emergencies, it should be activated to a full scale within a short timeframe of 2 to 3 hours.

•It will also closely be connected with other agencies who provide early warning.

❖ Regional Disaster Management Centres (RDMCs):

•In order to take care of city administrations in terms of disaster management State government has set up 10 RDMCs in the state.

•These centres are located with 10 Municipal Corporations and provided budget to strengthen the EOCs and purchase SAR materials, organize capacity building trainings for various target groups as well as organize awareness programmes on different disasters in city areas.

❖ District Disaster Management Authority (DDMA):

•At the District level, DDMAs will act as the planning, coordinating and implementing body for DM and will take all measures for the purposes of DM in the respective Districts in accordance with the guidelines laid down by National Disaster Management Authority (NDMA).

•The DDMA, not exceeding seven members, headed by district collector will deal with all disaster management issues at district level including preparedness, mitigation, response and recovery works.

•At the time of emergency the district administration may take help of State administration for relief and rescue operation.

❖ DDMCs and DDMOs:

•Under the Maharashtra Disaster Risk Reduction Programme the State government has appointed Divisional Disaster Management Coordinators (DDMCs) in all divisions and District Disaster Management Officers (DDMOs) in all districts on contractual basis.

•The DDMOs are responsible to District Disaster Management Authorities (DDMAs) and implement the MDRM programme at district level.

•All DDMAs are provided funds by State government for strengthening EOCs, organizing capacity building trainings and public awareness programmes.

•Appointments of DDMOs are part of institutional development of disaster management in the State.

❖ Local Authorities:

•Local authorities like Panchayati Raj Institutions (PRIs), Municipal Corporations, Municipalities, District and Town Planning Authorities are duly associated in disaster management process.

•These bodies will prepare DM Plans following the Guidelines of NDMA, SDMAs and DDMAs and will ensure capacity building of their officers and employees for managing disasters, carry out relief, rehabilitation and reconstruction activities in the affected areas.

AGENCIES FOR DISATER MANAGEMENT AT NATIONAL LEVEL

IQRA COLLEGE OF EDUCATION, JALGAON

UNIT NO. 1

INTRODUCTION TO CHILDHOOD

BY: PROF. IRFAN SHAIKH

SYLLABUS

a) Concept of childhood.

b) Stages of child development.

c) Relation of childhood with family, neighborhood, schools and community.

d) Characteristics of childhood, child development and adolescence.

A) Concept of Childhood:

- Childhood is the state of a child between infancy and adolescence.
- It is the time of person's life when they are a child.
- It is the period when a child starts to play and go to school.
- Some scholars also consider childhood as a span of age ranging from birth to adolescence.
- Childhood generally starts after 2 years of birth and ends at the age of 14 years.
- According to some scholars childhood ranges between ages of 6 years to 12 years.
- But this time period is not rigid and depends upon individual child.

Definitions of Childhood

- According to Oxford dictionary, “Childhood is the state or period of being a child.”
- According to Cambridge dictionary, “Childhood is the time when someone is a child.”
- According to UNICEF, Childhood is the time for children to be in school and at play, to grow strong and confident with love and encouragement of their family and other caring adults.”

B) Stages of Child Development

1) **Rousseau's Classification of stages of Development:** Rousseau has divided the individual's development into four stages as given below:

Stage	Approximate age/ Period	Characteristics
1) Infancy	1 to 5 years	1) Free wondering stage 2) Simple pay things 3) Physical development
1) Childhood	Between 5 to 12 years	1) Development of senses 2) Non-verbal lessons 3) Activity and experience
1) Pre-adolescence	12 to 15 years	1) Period of developing intellect 2) Study of natural sciences 3) Manual work and industrial arts
1) Adolescence	15 to 20 years	1) Sex instructions 2) Moral education 3) Understanding of complex social relationships

2) Jean Piaget's Development Stages: Piaget, a Swiss educator, observed children for about 50 years and wrote more than 20 books on the various aspects of development. He pointed out four stages of development as shown below:

Stage	Approximate age/ Period	Characteristics
1) Sensory motor stage	Birth to 2 years	Manipulation of objects in the environment
1) Pre-Operational stage	Between 2 to 6 years	Child begins to acquire vocabulary
1) Concrete operational stage	Between 6 to 12	Child learns to add, subtract, multiply and divide
1) Formal operational stage	Between 12 to 14	The child begins to think logically

3) Generally Acceptable Stages of Development: Generally there are four basic stages of development as shown below:

Stage	Approximate age/ Period	Schooling Stage
1) Infancy	Birth to 2 years	
1) Early childhood	2 to 6 years	Pre-primary (Nursery, K.G., etc.)
1) Later childhood	6 to 14 years	Primary / Elementary
1) Adolescence	14 to 18 years	Secondary and senior secondary
1) Adulthood	18 and above	

Characteristics of each Stage of Development:

1) Infancy (Birth to 2 years):

❖ Physical Development:

1) Infancy is a period of rapid growth in size and weight.
2) The average length of a new born child is 19 inches and the average weight is 7 pound (3.5 kg).
3) By the time child is about 2 years of age, his weight becomes about 25 pounds (11-12 kg) and overall length about 33 inches.
4) There is rapid growth in the bones and muscles. He starts using his fingers by holding things, sitting, standing, walking and running.
5) The first tooth appears normally at the age of six months. By the age of one year 4 teeth appear.
6) There is rapid growth of nervous system during this period. The brain grows rapidly.

❖ Intellectual/ Mental Development:

1) Intellectual development means the development of language, interest, memory, imagination, understanding, sensation, perception, etc.
2) The child at the birth can only cry as an expression of emotion- pleasure or pain.
3) By the age of one year the child is able to speak few words like – Aa, Baa, Maa, Pa, etc.
4) During first year child just cry if he is thirsty or hungry but after one year he say ‘Mam-Mam’ when he is thirsty.
5) The child in his infancy is interested in only things which are connected with his immediate needs such as hunger and feeding.
6) Slowly an infant becomes interested in bright, jingling and moving toys.
7) In the first month of infancy the sensory development takes place and the child learns to use his senses effectively.

❖Emotional Development:

1) Emotions plays important role in the physical, mental and social development of the child.
2) Emotions of the child are not specific at birth. Child cannot able to show specific emotions like hunger, fear, joy, etc.
3) As the child grows and reaches the age of 2, there is differentiation of emotions.
4) Infants start to show feelings of anger and joy by crying and laughing.
5) They also show emotion of affection/ love for their parents.

❖Social development:

1) The child is not social at birth. He is self-centered. His activities and interest revolves around himself.
2) The child is fully dependent on parents for his needs.
3) Upto 2 year, social relationship of child is restricted to his home only.
4) So in this period family plays an important role in developing social attitudes and behavior.
5) Upto 2 year, the child plays individually and don’t need partner to play.

2) Early Childhood (2 to 6 years):

❖ Physical Development:

1) The physical growth at this period is at a slow rate.
2) The average annual growth in height during this period is 3 inches. At the age of 6 years the height becomes 46.6 inches.
3) The average annual increase in weight is 3 to 5 pounds. At the age of 6, the child has seven times of his weight than at birth.
4) The arms and legs lengthen and hands and feet grow bigger.
5) The child develops variety of motor skills like walking, running, jumping, climbing.

❖ Intellectual/ Mental Development:

1) At the age of 2 or 3, the child learns to speak very short sentences which are usually in the form of repetition of what elders have said.
2) In this period the child becomes curious and asks question such as “what is this?” “why is it so?” “who has done it?”.
3) Day dreaming, fairy tales, fantasy are important parts of this period.
4) The child thinks that his imaginary world is real world.
5) At the age of 5 a child is capable of reasoning and thinking but his reasoning is vague.
6) During this period children are ego-centric.

❖ Emotional Development:

1) From the age 2 to 6 years the child is highly emotional.
2) If the child is not handled properly at this stage he will become an emotionally immature person.
3) The emotions in this period are spontaneous and the child cannot control them.
4) Anger is the most common emotion at this stage. It is aroused when adult's force is used to restrict the freedom of the child.
5) They also show the emotions of joy and affection.

❖ Social development:

1) At the age of 2 to 3, child starts to play with other children.
2) The size of play group increases with the age.
3) He becomes an active member of his group.
4) He shows preference for his friends.
5) At this whole stage, the child is self-centered. When he co-operates he does so at his own interest.
6) Social development in this stage depends much on his relationship with his parents.

3) Later Childhood (6 to 14 years):

❖ **Physical Development:**

1) Later childhood is a period of slow, steady and uniform growth.
2) The child at the age of 12 is about 56 inches in height and 85 pounds in weight.
3) The nose becomes larger and the lower jaw also increases in size.
4) Arms, legs and trunk increases in length and the period of thinness begins.
5) There is rapid and grater muscular growth during this period.
6) The teeth of childhood starts falling and the permanent teeth start growing.
7) During this period growth of nervous system proceeds at a relatively slow rate.
8) The sense organs and motor organs assume complete development.
9) Gender differences influences the physical growth. A girl is taller on an average by half inch and weights more on an average by 3 pounds than a boy.

❖ Intellectual/ Mental Development:

1) This is a period of intellectual development, where new experiences are acquired and applied.
2) By the time the child is 14, his vocabulary is sufficiently rich. He can speak sentences fully well.
3) The favorite topics of discussion are day to day experiences, video games, gadgets, girls, etc.
4) The child tries to put curious questions to his elders and tries to get answers from them.
5) During this period power of observation, reasoning, remembering, recalling, attention and thinking develops.
6) Many concepts such as time, length, distance develops at this period.
7) Interest of child expands during this period. He likes books about travel, science, adventure, mystery, romance and likes to watch movies.

❖ **Emotional Development:**

1) This is a period of emotional stability and control. The child now comes to have a control over his emotions.
2) He gets angry but does not let it be exhibited.
3) He gets frightened but tries to show his courage and bravery.
4) He expresses his affection very modestly and on limited occasions.
5) He does not like to be kissed by elders at this age.
6) He does not like to be nicknamed because it hurts his ego.

❖ Social development:

1) Considerable changes take place during this period in social behavior.
2) At about 6 or 7, the child tends to play in small groups. He seeks playmates and spends most of his time with them.
3) By 11 or12 he likes to take part in team games.
4) The group becomes more important during this period.
5) The child learns to adjust himself in a group. He learns to cooperate with others. He also learns to prefer group interest to self-interest.
6) At about 8 to 10, gender differences are marked. Boys and girls lives and plays in separate groups. Boys usually shows interest in outdoor games like- cricket, football, kabaddi, etc. The girls show interest in indoor games.

4) Adolescence (14 to 18 years):

Adolescence is the most important and critical period of individual's development with which teacher has to deal.

❖ **Physical Development:**

1) The height and weight increases rapidly during this period.
2) The maximum limit with regards to increase in size, weight and height is achieved.
3) Generally, boys are heavier and taller than girls but at about 12 to 14 girls are taller and heavier than boys as they develop earlier than male child.
4) At the end of this period the child reaches at final body shape.
5) The body proportion also develops at different rate and reaches their final size.
6) There is a distinct change in voice among the two sexes. The voice of the boy becomes harsher and the voice of the girl becomes sweet.
7) There is a growth in genital organs. As the boys goes towards a man and the girls goes towards a women.

❖ Intellectual/ Mental Development:

1) Adolescence is a period of maximum intellectual development.
2) During this period the span of attention increases. The power of concentration gets increases.
3) Memory is also developed and it tends to function more logically.
4) Adolescence possesses excessive imagination. Writers, artists, musician, poets, philosophers and inventors are born in this period.
5) Hero-worship is very prominent in this period. Hero for adolescence may be a film-star, a political or religious leader, a poet or artists, a scientists or a teacher.
6) Adolescence starts taking interest in their appearance and dressing.
7) He begins to think seriously about his future and kind of vocation he want to make as his carrier.
8) During this period adolescence also take more interest in the matters related with love and sexual relationship.

❖ **Emotional Development:**

1) It is also consider as a period of emotional storm and stress.
2) Adolescents are generally emotionally disturbed due to physical and sexual development.
3) Their emotions are very intense. When adolescence hates someone he hates strongly and when he falls in love he does it passionately.
4) Thus the emotions of adolescents are on extremes.
5) Emotional moods of adolescents vary from elation to depression.
6) Emotions of adolescents are not under their control.

❖ Social development:

1) Social consciousness is developed in adolescence very fast. They want to be praised by their parents, teachers and friends. They want social status.
2) Adolescence boys and girls form their groups and discuss their problems freely. They become very loyal to their groups as sometimes they ignore their parents demands.
3) If elders are not giving approval to their groups it starts clash between them.
4) Social relationship of adolescence becomes gender oriented. Boys wants to attract the girls and want to have friendship with them, whereas girls want to have friendship with boys.
5) They like to do social service passionately and doesn't mind personal inconvenience in doing such services.

C) Relation of Childhood with Family, Neighborhood, Schools and Community:

1) Childhood and Family:

- Family lifestyle, aims, ambitions, attitude of parents, their emotional stability, their over protection, under protection, parents relationship with each other, all these factors influences child development.
- Good and healthy family environment is essential for proper growth and development of a child.
- In well adjusted families there are better chance of growth and development.
- If there is love and understanding between husband and wife, the family structure contributes towards healthy growth and development.
- Disruptive family environment may produce disrupted, delinquent, backward and maladjusted personalities.
- The number of members in the family, birth order of child, education of parents, and economical status of parents all these factors significantly influences the development of a child.
- Children accepted and loved by parents are generally emotionally stable, well socialized and calm.
- The children rejected by the parents generally show emotional instability and aggressiveness.

C) Relation of Childhood with Family, Neighborhood, Schools and Community:

2) Childhood and Neighborhood:

- Neighborhood also influences various aspects of child development.
- Cultured and educated neighbors influence the development in a positive manner.
- Child learns some habits, interests, attitudes, way of talking and behavioral patterns of their neighbors.

C) Relation of Childhood with Family, Neighborhood, Schools and Community:

3) Childhood and School:

- School plays a vital role in various aspects of child development.
- Teacher's personality i.e., his attitude, beliefs, ideas, habits, ambitions, behavior, etc influences the child development.
- The child mostly gets influenced by their peers in school.
- The environmental condition of school and its premises also affects some aspects of child development.
- Clean and healthy atmosphere of school helps in healthy development of child.
- Curriculum of school, co-curricular activities, methods of teaching, etc also influences various aspects of child development.

C) Relation of Childhood with Family, Neighborhood, Schools and Community:

4) Childhood and Community:

- The community also plays significant role in child development.
- The persons in the community come in contact with the child at various places like playgrounds, parks, museums, libraries, shopping malls, marriage ceremonies, etc. where child get influenced by their habits, attitudes, behavior, etc.
- The community also helps to develop some social relationships between child and other members of the society.

D) Characteristics/ Principles of Child Development

1) Development is a Continuous Process:

Development is a continuous process which begins from the time of conception of an individual in the womb of the mother and continues till death. The physical, mental, emotional, social development of an individual continues throughout his life.

2)Development is Predictable:

Child's growth and development are sequential and uniform. Thus, we can predict the general nature and behavior of a child. For example, with the knowledge of the development of physical structure of a child it is possible to predict his adult structure.

3) Development is Cumulative:

Development is a cumulative process. Changes in an individual do not come all of sudden. Each change is an integration of his previous growth and experiences. The child's first word, first step are the result of cumulative progress (i.e. integration) of the child's previous experiences and development.

4) Development follows an orderly sequence:

Development follows an orderly sequence. Each child goes through different stages of development step by step. Each child first starts with sitting, after some time he starts standing, then walking, running, and jumping.

5) Development is Individualized process:

All individuals develop in their own way. Each child has his own rate of physical, mental, emotional and social development. If we observe six year old children we find great differences in their height, weight, intelligence, feelings, etc.

6) Development proceeds from general to specific:

Development proceeds from general and undifferentiated movement to the more selected, specific and refined movement. An infant grasps a toy by closing all his fingers round it. It is only much later that the more refined finger and thumb manipulations will be employed to perform the same act.

7) Development proceeds more rapidly in the early years of life:

Period of infancy is considered as a period of rapid growth and development. In these early years the physical, mental, and emotional development takes place very rapidly.

8) Development occurs at different rates for different body parts:

In development process different body parts such as nerves system, digestive system, teeth, jaws, legs arms, nose, etc develops at different rates at different stages.

9) Different Aspects of Development are interrelated:

Different aspects of child development are interrelated and interdependent. The mental development of a child affects his physical development. If a child is physically handicapped his social behavior is affected. If child's physique is not properly developed he will not be emotional stable.

10) Development is influenced by both heredity and environment:

An individual's development is based on his genetic make-up and environmental influence. A child's body structure, height, color, mental setting personal and behavioral qualities are drawn from heredity. The environmental condition such as cold, warm, desert, hilly, etc affects the physical structure and strength of an individual.


Thank
You!!

Microteaching Skills

SKILL OF EXPLANATION

By
Prof. Irfan Shaikh

Meaning of Explanation

- Explanation is an activity, which is used by the teacher from class I to higher classes.
- The whole class is not homogeneous. All the pupils in the class are not alike.
- Some pupils are intelligent, some have average intelligence and some are poor.
- But the teacher has to impart knowledge to all types of students.
- the teacher uses different methods so that he may present the subject matter to the pupils in an easy and simplified form.
- This presentation of the subject matter in an easy and simple form is called as explanation.

Definitions of Explanation

1) The **presentation of subject matter in an easy and more simplified form** before the students so that they can understand the concept or topic is called as the skill of explanation.
2) An explanation is **clear and vivid description of any difficult phenomenon or concept** with the help of examples, diagrams and teaching aids.
3) An explanation is a **set of interrelated statements made by the teacher** related to a phenomenon, or concept **in order to increase understanding** of the students about it.

Precautions / Practical Suggestions for making Explanation Effective

1) Before starting the lesson, the teacher should make clear the aim or purpose or title of the lesson.
2) Explanation should be in simple and easy language.
3) Explanation should be according to the age, experience and mental level of the pupil.
4) There should be logical and proper sequence in explanation.
5) Proper time should be given to explain the phenomenon or concept or idea.

Precautions / Practical Suggestions for making Explanation Effective

6. Irrelevant things should be avoided in explanation.
7. Proper teaching aids should be used to clear a phenomenon or concept.
8. Question should be asked to pupils during explanation in order to make it live.
9. Also the pupil should be given the opportunities to ask the questions.

Types of Explanation

There are mainly three types of explanation as follows:

1) Descriptive explanation.

2) Interpretive explanation.

3) Reason giving explanation.

1) Descriptive Explanation

- In this type, the **explanation is based on a description**. Here, the teacher describes process, structures and procedures.

- E.g., 1) Cell division process,
  2) Structure of cell,
  3) Parts of flower,
  4) Process of water cycle,
  etc.

2) Interpretive Explanation

- It is about the central meaning of a concept or an issue. In this explanation, **the teacher specifies the central meaning of a term** or statement or clarifies an issue.

- E.g., 1) Concept of motion,
  2) Types of energy,
  3) Newton's laws of motion,
  4) Definition of noun,
  etc.

3) Reason Giving Explanation

- In this type, the **teacher gives reasons or causes for a particular phenomenon** or an event.

- E.g., 1) How day and night occurs?
  2) Why sky is blue?
  etc.

Components of Skill of Explanation

A) Desirable (Expected) Behavior:

1) Example- Rule – Example.
2) Use of liking words.
3) Planned repetition.
4) Use of teaching aids.
5) Fluency.

B) Undesirable (Unexpected) Behavior:

1) Vagueness.
2) Use of improper words.

Components of Skill of Explanation

A) Desirable (Expected) Behavior:

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Components of Skill of Explanation

B) Undesirable (Unexpected) Behavior:

1) Vagueness.

2) Use of improper words.


Thank
You!!

Microteaching Skill

Skill of Explanation
Demo Lesson

By
Dr. Irfan Shaikh

Subject : **Science** STD : **IXth**

Topic

Classification of Animals

Sub Topic

Classification of Animals According to Habitat

Habitat = Place of living and surviving

Classification of animals according to their habitat

1) Aquatic Animals
2) Amphibian Animals
3) Terrestrial Animals
4) Aerial Animals
5) Arboreal Animals

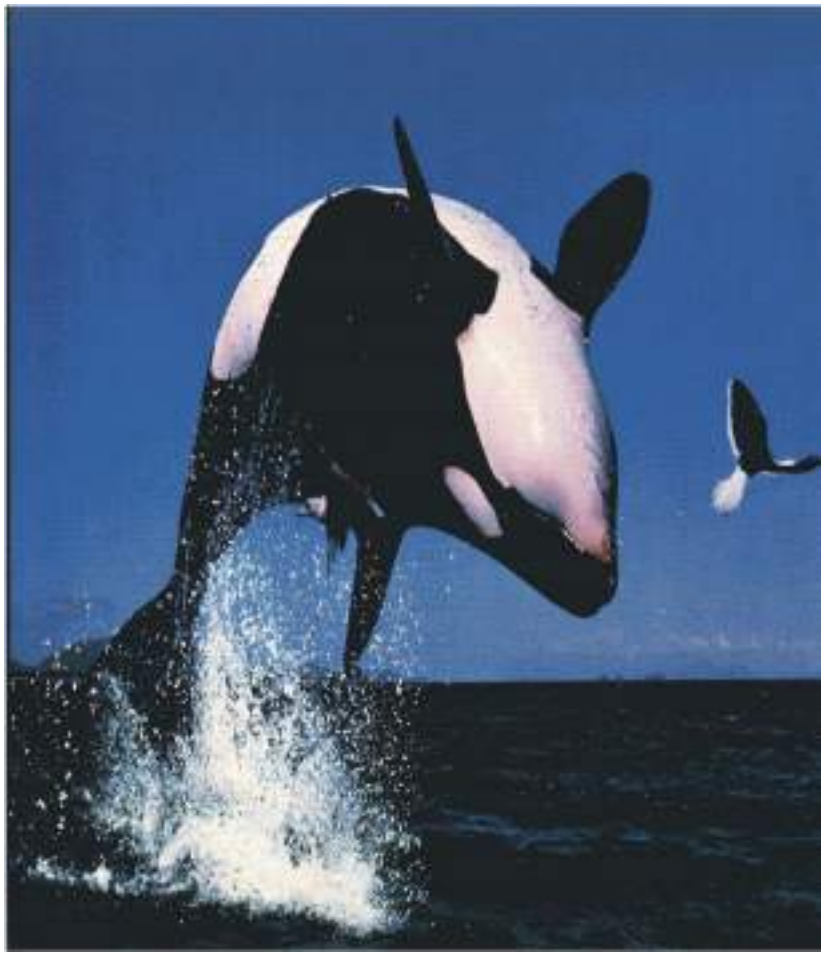
1) Aquatic Animals

Fish

1) Aquatic Animals

- The animals that are living in water are called as aquatic animals.

1) Aquatic Animals



Whale

Dolphins

2) Amphibian Animals

Crocodile

2) Amphibian Animals

- The animals that can live in water as well as on land are called as amphibian animals.

2) Amphibian Animals

Hippo

Tortoise

3) Terrestrial Animals

Tiger

Horse

3) Terrestrial Animals

- The animals that are living on land are called as terrestrial animals.

3) Terrestrial Animals


Thank
You!!

Pedagogy of Teaching Science

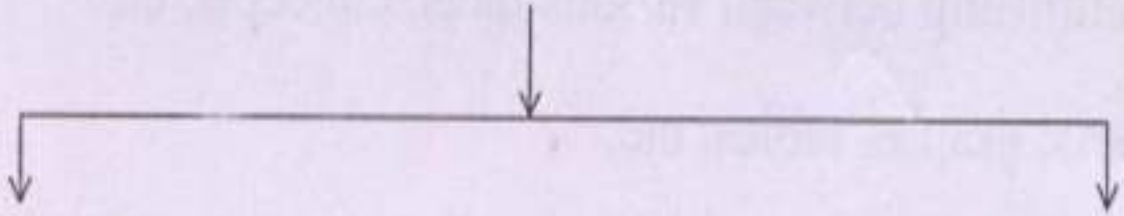
Objectives of Teaching Science

❖ General Objectives of Teaching Science:

The general objectives of teaching science are as follows:

1) To give the students up to date knowledge of different concepts of science.
2) To enable them to understand basic concepts, laws, theories, principles, methods, etc. in science.
3) To enable the students to apply the learnt knowledge in daily life.
4) To develop ability and skill of handling different apparatus or instruments used in science.
5) To develop the ability to perform scientific experiments more skillfully.
6) To develop interest and curiosity among the students to learn science.
7) To develop scientific attitude scientific creativity among the students.
8) To aware the students about the nature and our environment.
9) To develop understanding of technological processes in agriculture and industries.
10) To adopt scientific activity in their leisure (free) time.
11) To provide base for higher studies in science and technology.
12) To develop aesthetic sense among the students towards science.
13) To provide training of observation.
14) To develop sense of social responsibility among the students.
15) To prepare the students for different vocation based on science.
16) To encourage the students in independent deep study of different branches of science.

Instructional Objective of Teaching



Short Term

1) Knowledge
2) Understanding
3) Application
4) Skills

Long Term

5) Interest
6) Attitude
7) Appreciation
8) Personality traits

1) **Knowledge:** (Ability to remember previously learnt material)

Objective:

To acquire the knowledge of concepts, principles, definitions, properties, formula, rules, laws, terms, symbols, etc.

Specifications /Outcomes:

1) Pupil recalls the concepts, principles, definitions, properties, formula, rules, laws, terms, symbols, etc.
2) Pupil recognizes the concepts, principles, definitions, properties, formula, rules, laws, terms, symbols, etc.

2) Understanding: (Ability to grasp the meaning of the materials)

Objective:

To develop understanding of facts, concepts, principles, definitions, properties, process, methods, formula, rules, laws, terms, symbols, etc.

Specification /Outcomes:

1) Pupil illustrates the meaning of facts, concepts, principles, definitions, properties, process, methods, formula, rules, laws, terms, symbols, etc.
2) Pupil gives explanation of facts, concepts, principles, definitions, properties, process, methods, formula, rules, laws, terms, symbols, etc.
3) Pupil translates verbal statement into formula or symbol and vice-versa.
4) Pupil detects errors in given statements and refines them.
5) Pupil compares and detects similarity and differences between closely related concepts.
6) Pupil identifies relationship between various facts, concepts, etc.
7) Pupil interprets charts, graphs, tables, etc.

3) Application: (Ability to use the learnt materials in new situations)

Objective:

To apply the learnt knowledge and understanding of the subject to new situation in our daily life.

Specification /Outcomes:

1) Pupil analyzes and synthesizes the situation or problem.
2) Pupil formulates and tests the hypothesis (temporary solution) for the problem.
3) Pupil establishes the relationship between cause and effect.
4) Pupil gives reasons for scientific phenomena.
5) Pupil draws inferences and conclusions from the observed facts.
6) Pupil tries to apply his knowledge to solve daily life problems.
7) Pupil solves the mathematical problems using different formulas in science.

4) Skill:

Skill objective in science includes various skills such as manipulation skill, drawing skill, dissection skill, observation skill, computation skill, etc.

Objectives:

To develop various skills among the Pupils related to science subject.

Specification /Outcome:

A) Manipulation Skill:

1) Pupil handles the apparatus properly and carefully.
2) Pupil arranges and setups the apparatus in systematic manner.
3) Pupil observes and records relevant readings accurately.
4) Pupil takes necessary precautions in conducting the experiment.
5) Pupil improvises models, apparatus and other materials.

B) **Drawing Skill:**

1) Pupil draws neat and accurate sketches, diagrams, graphs, etc.
2) Pupil gives labels to the different parts of diagram properly.
3) Pupil records and presents the data in tables and charts.
4) Pupil draws diagrams showing actual arrangement of experiment.

C) **Computation Skill:**

1) Pupil solves numerical problems concerning to science.
2) Pupil measures the objects and evaluates it in terms of physical quantities and units.
3) Pupil represents the relationship between the facts and principles with the help of graph.

D) **Dissection Skill:**

1) The pupil selects appropriate specimen for the given purpose.
2) The pupil locates and removes the desired part of the specimen without any damage.
3) Pupil prepares different slides for microscope properly.
4) Pupil preserves different specimens properly.

5) Interest:

Objectives:

To develop interest among the students towards the science subject.

Specification /Outcome:

1) Pupil takes participation in seminar, discussion, debate, quiz competition, paper reading, etc.
2) Pupil reads scientific literature and biographies of prominent scientist.
3) Pupil visits the places of scientific interest.
4) Pupil improvises and creates apparatus and models in their free time.
5) Pupil engages himself in different scientific hobbies.

6) Attitude:

Objectives:

To develop positive and scientific attitude among the students.

Specification /Outcomes:

1) Pupil does not accept or reject anything without valid proof.
2) Pupil believes strongly in cause and effect relationship.
3) Pupil shows keen desire to know How and Why anything happens or exists.
4) Pupil shows a spirit of team work and self confidence.
5) Pupil realizes the dangers in misuse of scientific inventions.

7) Appreciation:

Objectives:

To develop ability of appreciation among the students towards the contribution of science for human welfare.

Specification /Outcomes:

1) Pupil his respect for the great scientist.
2) Pupil admires the work of different scientist.
3) Pupil feels pleasure in understanding of scientific advancement.
4) Pupil shows thrill and excitement in his activities and achievements and as well as of others.
5) Pupil feels pleasure in the study of the subject and realizes the contribution of subject in making our life healthy, happy and more comfortable.
6) Pupil believes strongly in cause and effect relationship.

8) Personality traits:

Objectives:

To develop desirable personality traits among the students.

Specification /Outcomes:

1) Pupil shows inquisitiveness in different topics.
2) Pupil is clear and precise in his work.
3) Pupil behaves in disciplined and systematic manner.
4) Pupil insists on accuracy and neatness.
5) Pupil shows tolerance for the views of others.

LANGUAGE ACROSS THE CURRICULUM

Presented by

Prof. Ishwar Narayan Songare

Unit – 1

Introduction of Language Across the Curriculum

a) Concept of Language Across the Curriculum

Language Across the Curriculum (LAC) as a concept acknowledges the fact that language education does not only take place in specific subjects explicitly defined and reserved for it, such as mother tongue education, foreign language education, second language education etc. Language learning and education also take place in each and every subject in school, in each and every academic/mental activity, across the whole curriculum – whether we are conscious of it or not.

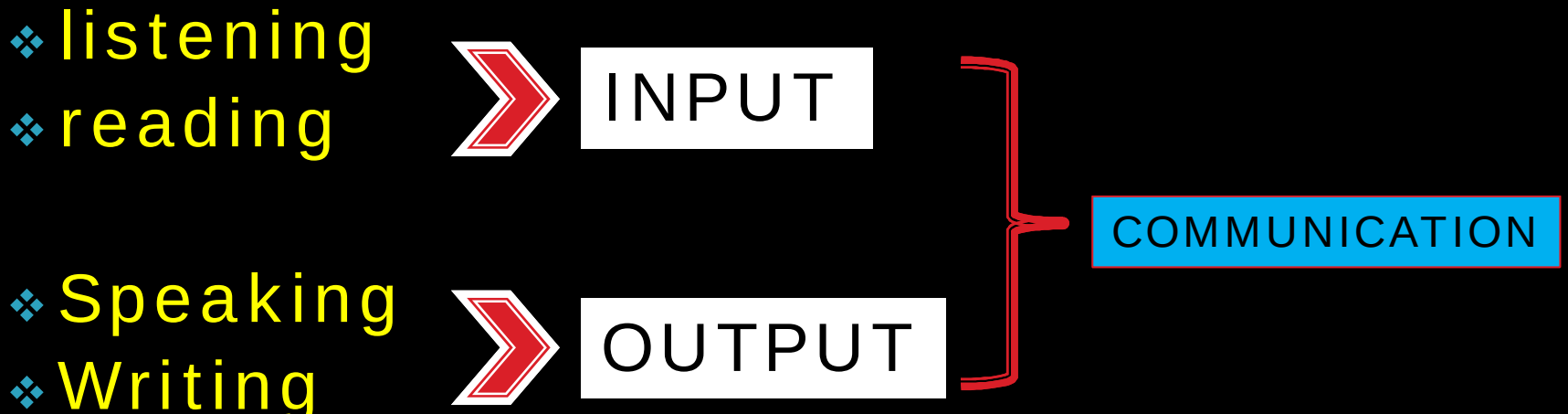
b) Skills of Language- (LSWRC)

- Listening
- Speaking
- Reading
- Writing
- Communication

It is said that language is a skill. It is the best medium of communication.

In language, there are four basic skills which are listening, speaking, reading and writing. These are the four pillars of the language. Communication is the integration of these four skills. These skills can be acquired by anyone who has those related sense organs.

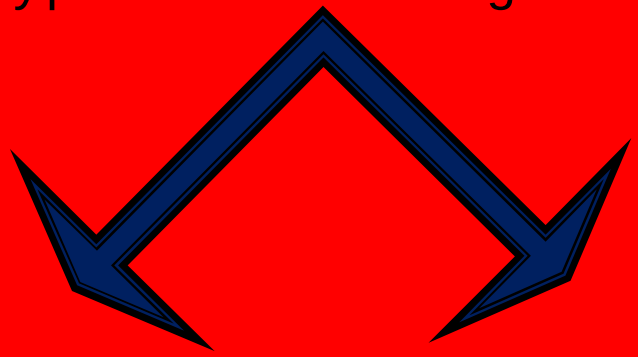
- We learn language for developing the skills **LSRWC**.
- The last skill ***Communication*** is the integration of the ***LSRW*** skills.
- In these four skills Listening and Reading are *Inputs* and Speaking and Writing are *Outputs*



Listening Skill

"Listening ability lies at the very heart of all growth, from birth through the years of formal education" - **Brown.**

Types Of Listening Skill:



Focused listening Casual listening

Speaking Skill

Speaking skill occupies the second position in the acquisition of skills. Speaking skill enable the student to use the language for communication. Correct pronunciation is very essential not only for the speaker but also for the listener. So it is very important for the speaker to speak a language by taking care of stress, rhythm and intonation. We can develop or maintain the social relations with the help of speaking skill.

Reading Skill

For learning English the skill of reading is very important. A large number of students fail to acquire this skill though they have been learning English from their primary and secondary school. May be there are several reasons but as a teacher of English we must encourage our students to develop the skill of reading.

"Reading should be given the key place in the total scheme of teaching English as a foreign language." - Dr.West

Reading is an active skill because it involves an active effort of the reader. One of the most valuable and useful aspects of learning a new language, is acquiring a mastery over reading the language. It is the only skill that can be comprehended. A good speaker is always a good reader. It promotes a self education.

Types of Reading Skill

1. Loud Reading:
2. Silent Reading:
3. Intensive Reading:
4. Extensive Reading:

Styles Of Reading Skill

1. Skimming
2. Scanning
3. Receptive reading
4. Responsive reading

Writing Skill

Nature:

Writing is one of the most essential and demanding skills. Language becomes meaningful by mastering the art of writing. It is the most effective weapon in the hands of a literate person. Through writing, a person is able to convey his thoughts or ideas to others who are present in front of the writer. A written message can be stored, received and referred back to any time. It is permanent. In English we write from left to right but learners whose primary schooling has been in Urdu or Japanese will have learnt to write from right to left or top to bottom.

Presented by

Prof. Ishwar Narayan Songare

MAHA-TET SEMINAR 2019

Sunday, 15th December 2019

@

Alfaiz Foundation's

ALFAIZ URDU HIGH SCHOOL, JALGAON

~: Guidance By :~

PROF. IRFAN I. SHAIKH

(I/C Principal, Iqra College of Education, Jalgaon)

MAHA- TET EXAM-2019 TIME TABLE

Sr. No.	Event	Date and Duration
1	MAHA TET 2019 application form filling	08/11/2019 To 28/11/2019
2	MAHA TET admit card Download Dates	04/01/2019 To 19/01/2019
3	Maharashtra TET Exam Paper-I Date and Time	19/01/2019 Time: 10.30 To 01.00
4	Maharashtra TET Exam Paper-II Date and Time	19/01/2019 Time: 02.00 To 04.30

MAHA TET Exam Pattern 2019-20

Primary Stage Paper I

STD 1ST To 5TH

Name of the Subject	Number of Questions	Number of Marks
Child Development & Pedagogy	30	30
Language I	30	30
Language II	30	30
Mathematics	30	30
Environmental Studies	30	30
Total	**150**	**150**

Type of Examination: Multiple Choice Objective Type

Total Time - 2.30 Hrs. = 150 Minutes

MAHA TET Exam Pattern 2019-20

Upper Primary Stage Paper II

STD 6TH To 8TH

Name of the Subject	Number of Questions	Number of Marks
Child Development & Pedagogy	30	30
Language I	30	30
Language II	30	30
Mathematics & Science or Social Studies	60	60
Total	**150**	**150**
Type of Examination: Multiple Choice Objective Type		

Total Time - 2.30 Hrs. = 150 Minutes

MAHARASHTRA TET EXAM-2019
PASSING CRITERIA

For OPEN category	**60% (i.e. 90) and above) Marks**
For SC/ST, VJ/NT, OBC, SBC & HANDICAPPED category	**55% (i.e. 83) and above) Marks**

VALIDITY OF MAHA-TET CERTIFICATE

- **Maharashtra TET Certificate was valid for 7 years only. But Now its validity is lifetime.**

CHILD DEVELOPMENT AND PEDAGOGY PAPER –I

The questions asked will be based on Educational psychology related to the student in the age group of 6 to 11 years .

- **The study process or Teaching and Learning process.**
- **children with special needs, their talents,**
- **school interactions,**
- **the quality of a good teacher.**
- **teaching methodology of different subjects,**
- **assessment methods of various subjects.**
- **The prescribed curriculum currently underway in the state based on the Teaching Education programme will be applicable to this subject.**

CHILD DEVELOPMENT AND PEDAGOGY PAPER -II

The questions asked will be based on Educational psychology related to the student in the age group of 11 to 14 years.

- **The study process or Teaching and Learning process.**
- **children with special needs, their talents,**
- **school interactions,**
- **the quality of a good teacher.,**
- **teaching methodology of different subjects,**
- **assessment methods of various subjects.**
- **The prescribed curriculum currently underway in the state based on the Teaching Education programme will be applicable to this subject.**

Question Wise Analysis
MAHA- TET Exam Paper-I - 2018

Q. No.	Content Analysis
61.	Characteristics of child Development
62.	Jean Piaget's stages of development
63.	Stages of Development
64.	Development –Heredity and Environment
65.	Benet's Intelligence theory
66.	Thorndike and Spearman's Intelligence Theory
67.	Emotional Intelligence
68.	Attention
69.	Sensation and Perception
70.	Retention
71.	Creative Thinking
72.	Concept and concept formation
73.	Images and its Types
74.	Law of Thorndike
75.	Methods of Teaching

Question Wise Analysis
MAHA- TET Exam Paper-I - 2018

Q. No.	Content Analysis
76.	Brainstorming
77.	Models of Teaching
78.	Flander's Interaction Analysis
79.	Models of Teaching
80.	Children with special needs
81.	Creativity and its factors
82.	Personality definitions
83.	Methods of Teaching
84.	Learning process
85.	Hormones and their functions
86.	Maslow's hierarchy of needs
87.	NCF- Constructivism
88.	Defense Mechanism
89.	Types of Interview
90.	Percentile Rank

CHILD DEVELOPMENT AND PEDAGOGY

- **Meaning of Growth and Development** نمواور نشو ونما
- **Difference between Growth and Developmen** نمواور نشو ونما میں فرق
- **Aspects of Child development**
  - **Physical development**
  - **Mental development**
  - **Emotional development**
  - **Social development**
  - **Language development**
  - **Moral development**
  - **Cultural development**
  - **etc.**

- **Principals of Child Development-** نشوونما کے اصول

  (Characteristics of child Development)

(1) تسلسل کا اصول (Principle of Continuity)

(2) ترتیب واریت کا اصول (Principle of Sequentiality)

(3) یکسانی نمونے کا اصول (Principle of Unifrom Pattern)

(4) نشوونما کے متعین رخ کا اصول (Principles of Direction of Developement)

(5) عمومی سے خصوصی ردعمل کا اصول (Principle of General to Specific Responses)

(6) انضمام کا اصول (Principle of Integration)

(7) نشوونما کے مختلف رفتار کا اصول (Principle of Different Rate of Development)

(8) باہمی تعلق کا اصول (Principle of Interrelation)

(9) توارث اور ماحول کے باہمی اثر کا اصول

(Principle of Interaction of Heredity and Environment)

61. درج ذیل بیانات میں سے کون سا بیان نشوونما کی خاصیت ہے؟

(1) نشوونما کے عمل میں انفرادی فرق نظر آتا ہے۔

(2) نشوونما کے عمل میں فرد کے حیاتی اجزا غیر موثر ہوتے ہیں۔

(3) ہر جاندار میں نشوونما کا عمل یکساں نوعیت کا ہوتا ہے۔

(4) ابتدا میں نشوونما کی رفتار دھیمی ہوتی ہے۔

61. Which of the following statements is characteristic of development process?

(1) There are individual differences seen in development process.

(2) Biological factors of a person are ineffective in development process.

(3) Development process in every organism is same.

(4) Rate of development is less in initial stage.

- **Stage of Growth and Development** نمواورنشوونما کے مراحل

نشوونما کے مراحل

عمرہ گروہ	نشوونما کا مرحلہ		اسکول جانے کا مرحلہ
پیدائش سے 2 سال تک	شیر خوارگی	INFACNCY	-
2 سے 6 سال تک	ابتدائی بچپن	EARLY CHILDHOOD	ابتدائی سے پہلے
6 سے 14 سال تک	ثانوی بچپن	LATER CHILDHOOD	ابتدائی
14 سے 18 سال	عنفوان شباب	ADOLESCENCE	ثانوی اوراعلیٰ ثانوی
18 سے 40 سال	ابتدائی بلوغیت		-
40 سے 65 سال	پختہ بلوغت		-
65 سے زیادہ	معمر بلوغت		-

63. آخری بچپن میں بچوں کی جبلت دوستوں کے گروہ میں رہنے کی ہوتی ہے۔ اس کا اسکولی سرگرمیوں میں فائدہ اٹھانے کے لئے معلم کن باتوں سے گریز کریں؟

(1) طلبہ کی خواہش کے مطابق گروہ بنانا اور مختلف مقابلوں کا انعقاد کرنا۔

(2) جماعتی نظم ونسق، آرائش کی ذمہ داری طلبہ پر ڈالی جائے۔

(3) طلبہ کی شکایتوں پر سنجیدگی سے توجہ دی جائے۔

(4) گروہ میں تخریبی کام کرنے کی ترغیب نہ ہو اس کی نگرانی کی جائے۔

63. In later childhood stage, the children have an attitude of making teams of friends. To use this attitude advantageously what should a teacher avoid from the following?

(1) Form groups according to their wish and arrange various competitions.

(2) Give responsibility of class discipline and decoration to students.

(3) Take complaints of students seriously.

(4) Keep an eye so that they do not form groups for destructive work.

- Factors influencing Growth and Development: Heriditary and Environment

نمواورنشوونما کواثر انداز کرنے والے عوامل: توارث اور ماحول

Theories of Development نشوونما کے نظریات

- Congnative (Piget) Theory وقوفی (پیاجے) نظریہ
- Psycho-Social (Erikson) Theory نفسی سماجی (ایکریسن) نظریہ
- Moral (Kohlberg) Theory اخلاقی (کوہل برگ) نظریہ
- Psycho-Analytic Theory نفس تجزیہ (فرائڈ) نظریہ
- Language Developement theory of Noam Chomsky

زبان کی ارتقا کا نوم چومسکی نظریہ

62. جین پیاجے کے مطابق ذیل میں سے کس مرحلے میں بچہ ادراک اور تصور کی جماعت بندی کرنا سیکھتا ہے اور براہ راست عمل کے ذریعہ نتیجہ اخذ کرنا سیکھتا ہے؟

(1) ذہنی نشوونما کی حالت
(2) عمل سے قبل نمائندگی کا زمانہ
(3) ٹھوس عمل کی حالت
(4) بولنے سے قبل کی حالت

62. In which of the following stages of Jean Piaget's does a child learn to classify perception and concepts and learns to draw conclusion from actual actions?

(1) Stage of cognitive development.
(2) Stage of pre-operational representation.
(3) Stage of concrete operation.
(4) Preverbal stage.

انفرادی فرق کا تصور Individual Differences

انفرادی فرق کی خصوصیات (Characteristics of Individual Differences)

انفرادی فرق کے اقسام (Types of Individual Differences)

64. انفرادی نشوونما میں وراثت اور ماحول دونوں کی اہمیت ہے، اس کے تحت ذیل میں سے کون سا بیان غلط ہے۔

(1) تہذیبی ماحول بچہ کی نشوونما پر اثر انداز ہوتا ہے۔

(2) نشوونما کے لئے بنیادی طاقت مہیا کرنے کا کام وراثت کے ذریعہ ہوتا ہے

(3) عام طور پر بچوں کا رنگ، روپ اور قد وراثت سے حاصل ہوتے ہیں۔

(4) نشوونما کو سمت دینے کا کام وراثت کرتی ہے۔

64. 'Heredity & environment are both important in the development of a person'. Which of the following statements is incorrect in relation to the above statement?

(1) Child development is affected by cultural environment.

(2) Basic strength needed for development is provided by heredity.

(3) Generally a child acquires colour, appearance and height through heredity.

(4) Heredity gives direction to development.

Personality concept شخصیت کا تصور

Types of Personality شخصیت کی اقسام

82. Which of the following alternative shows the correct pairs of psychologist and his given difinition?

Psychologist	Definition
i. Norman Munn	(a) personality is the social stimulation value of a person
ii. Allport	(b) Personality is integration of an individual's structure, modes of interest, attitudes, behaviour, capacities, abilities and aptitudes
iii. M.A. May	(c) Personality is an individual's integrated behaviour in a social situation.
iv. A.A. Traxter	(d) Dynamic organisation of psychophysical systems in an individual means personality.

(1) i – (b) ii – (d) iii – (a) iv – (c)
(2) i – (a) ii – (c) iii – (b) iv – (d)
(3) i – (c) ii – (d) iii – (a) iv – (b)
(4) i – (d) ii – (a) iii – (b) iv – (c)

- **Concept of Learning** اکتساب، اکتساب کا تصور، مراحل اور اکتسابی اصول
- **Factors affecting Learning** اکتساب پر اثر انداز ہونے والے عوامل
- **Theories of Learning** **اکتسابی نظریات**

سعی اور خطا کا نظریہ (تھارن ڈائک)

کلاسیکی مشروط نظریہ (پاؤلو)

عملی مشروط نظریہ (اسکینر)

بصیرتی اکتساب کا نظریہ (گیسٹالٹ)

سماجی اکتساب کا نظریہ (بندورا)

- Intelligence ذہانت
- The Concept of IQ (Intelligence Quotient) IQ کا تصور
- Types of Intelligence ذہانت کے اقسام
- Theories of Intelligence ذہانت کے نظریات
- Two Factor Theory دو عوامل نظریہ
- MItifactor Theory کثیر العوامل نظریہ
- Guilfords Theory گل فورڈ کا نظریہ

65. 'The concept of mental age is a prominent gift of Binet to the field of intelligence measurement.' Which of the following statements is correct in relation to the above statement?

(1) The physical development of a person may not occur like the mental development of that person.

(2) Rate of mental development is same for everyone.

(3) The mental development of a person is not dependant on innate cognitive competencies of a person.

(4) Generally the mental development of a person reaches completion at the age of sixteen years.

65. ذہنی عمر کا تصور سے مراد ذہانت کی پیمائش کے شعبے میں بننے کی بڑی دین ہے۔ اس سے متعلق ذیل میں سے کون سا بیان درست ہے؟

(1) ایسا نہیں ہے کہ جسمانی نشوونما کے تناسب میں ذہنی نشوونما ہوتی ہے۔

(2) ذہنی نشوونما کی رفتار تمام لوگوں میں یکساں نہیں ہوتی۔

(3) فرد کی پیدائشی ذہنی صلاحیت پر نفسیاتی نشوونما کا انحصار نہیں ہوتا۔

(4) عام طور پر پیدائش کے سولہویں سال نفسیاتی نشوونما تکمیل کو پہنچتی ہے۔

- **Emotional Intelligence**

67. 'Proper management and situationwise manifestation of various emotions of an individual is called emotional intelligence'. Which of the following statements is incorrect in relation to above statement?

(1) It is necessary for a person to recognise his/her emotions.

(2) It is necessary to do management of the intensity of manifestation of one's emotions.

(3) It is natural thing to become sad by watching a sad event.

(4) It is not necessary to recognise others' emotions.

67. انسان میں جو مختلف قسم کے جذبات ہوتے ہیں اس کا موقع کے لحاظ سے اظہار ہو کر نظم ہونے سے مراد جذباتی ذہانت ہے۔ اس سے متعلق ذیل میں سے کون سا بیان غلط ہے۔

(1) انسان کو اپنے جذبات سے واقفیت ضروری ہے۔

(2) جذبات کے اظہار کے لئے کتنی شدت ہو اس کا نظم ہونا ضروری ہے۔

(3) کوئی دکھی واقعہ دیکھ کر دکھی ہونا قدرتی بات ہے۔

(4) دوسروں کے جذبات سے واقفیت غیر ضروری ہے۔

- تدریسی ماڈل Model of Teaching

۱- سماجی تعامل پر مبنی ماڈل (Social Interaction Model)

2- معلومات کے عمل پذیر پر مبنی ماڈل (Information Processing Model)

3- شخصی/ذاتی ماڈل (Personal Model)

4- طرزِ عمل پر مبنی ماڈل (Behavioural Modification Model)

(Attention) توجہ

68. درج ذیل بیانات میں سے کون سا بیان توجہ کی خصوصیت نہیں ہے؟

(1) توجہ ایک منتخب عمل ہے۔

(2) توجہ کی وجہ سے علم کا حصول اور ادراک ہوتا ہے۔

(3) ظہور اظہار کی شدت یکسوئی پر منحصر نہیں ہوتی۔

(4) توجہ کو کسی ایک نقطہ پر زیادہ دیر تک مرکوز نہیں کیا جاسکتا۔

68. Which of the following is not a statement about attention?

(1) Attention is a selective process.

(2) Acquisition of knowledge and comprehension occur due to attention.

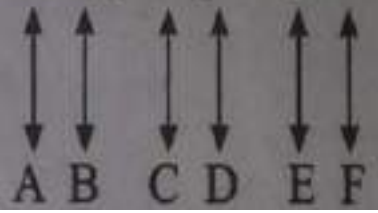
(3) Attention does not get concentrated on internal factors.

(4) Attention cannot be focussed on one thing for a long time.

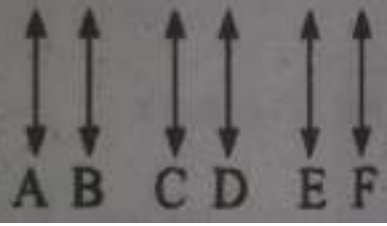
- **Sensation and Perception**

69. Selection of sensation and perception is dependant upon the nature of stimulus. Observe the following diagram and choose what type of sensation will be seen during its perception?

(1) Proximity
(2) Similarity
(3) Continuity
(4) Wholeness.



69. احساس کا انتخاب محرک کی نوعیت پر ہوتا ہے۔ درج ذیل میں سے احساس کی کون سی درجہ بندی کی تشکیل تصور کے ادراک کے وقت ہوتی ہے؟



(1) قرب
(2) مماثلت
(3) تسلسل
(4) تکمیل

یادرکھنا/ ذہن نشیں کرنا/محفوظ رکھنا (Retention)

70. Which of the following statements is not related to the nature of retention?

(1) The neuro process of retention of recent experience continues for some time.

(2) Retention occurs at different levels.

(3) Retention of a person is not the same for all things.

(4) When a person starts studying a subject immediately after he has studied some other subject then proper retention is seen.

70. درج ذیل میں سے کون سا بیان قوت ماسکہ کی نوعیت کی حمایت نہیں کرتا؟

(1) قوت ماسکہ کے عصبی عمل میں حالیہ تجربہ کی باتیں کچھ عرصے تک جاری رہتی ہیں۔

(2) قوت ماسکہ الگ الگ سطح پر ہوتی ہے۔

(3) کسی فرد میں قوت ماسکہ کے تمام نکات یکساں نہیں ہوتے۔

(4) ایک مضمون کا مطالعہ ختم ہوتے ہی دوسرے مضمون کا مطالعہ شروع کیا گیا تو قوت ماسکہ اچھی ہوتی ہے۔

• Flander's Interaction Analysis

78. Which of the following is the correct limitation of Flander's Interaction Analysis Model?
(1) More emphasis is given on activity.
(2) The observer has very much importance.
(3) Conclusions can be easily drawn from the observations.
(4) We can tell lesson observations immediately to the students.

78. لینڈرس کے بین العمل کے تجزیے کی ذیل میں سے کون سی حدود مناسب ہے؟
(1) اس میں عمل پر زور دیا جاتا ہے۔
(2) اس میں مشاہدہ کو غیر معمولی اہمیت دی جاتی ہے۔
(3) مشاہدے سے نتائج اخذ کرنا آسان ہو جاتا ہے۔
(4) اس تکنیک میں سبق کا مشاہدہ، طلبہ کو فوراً کہا جاسکتا ہے۔

- **Learning process**

84. Which of the following statement is not supportive for the progress of learning process?

(1) The progress is fast when there is special interest in a subject.

(2) If the subject to be learned has been already studied in small extent, then it is disadvantageous for progress.

(3) The progress of learning is dependant on the individuals hereditary capacity upto some extent.

(4) Suitable methods of learning make a good effect on progress.

84. پڑھائی کے عملی طریقے میں ذیل میں سے کون سا بیان مدد گار ثابت نہیں ہوتا ہے؟

(1) کسی مضمون میں خصوصی دلچسپی ہو تو ترقی کی رفتار تیز ہوتی ہے۔

(2) جو باتیں سیکھنی ہیں اس کا مطالعہ پستگی ہو تو وہ ترقی کے لئے مضر ہوتا ہے۔

(3) سیکھنے کے عمل میں ترقی کچھ حد تک فرد کی وراثتی صلاحیت پر منحصر ہوتی ہے۔

(4) سیکھنے کے مناسب طریقے کی وجہ سے ترقی پر مناسب اثرات ہوتے ہیں۔

- **Hormones and their functions**

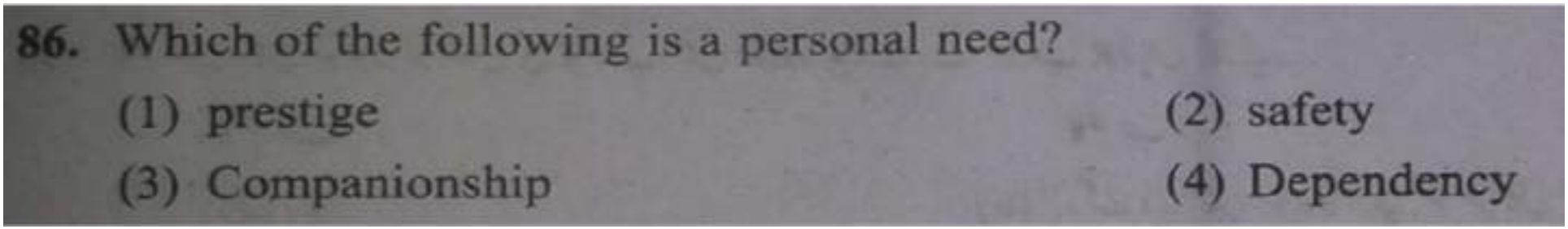
85. Which of the following secretions create vigour (vibrancy) in an individual but in case of secretion more than proportion, creates too much vigour in the individual?

(1) Cortisone
(2) Adrenaline
(3) Insulin
(4) Thyroxine

درج ذیل کن غدود کی وجہ سے فرد میں بیداری پیدا ہوتی ہے اور اس کا تناسب زیادہ ہوتو بچوں کے برتاؤ میں جوش و خروش نظر آتا ہے؟

(1) کارٹیسن
(2) ایڈرینل
(3) انسولین
(4) تھائرو کسن

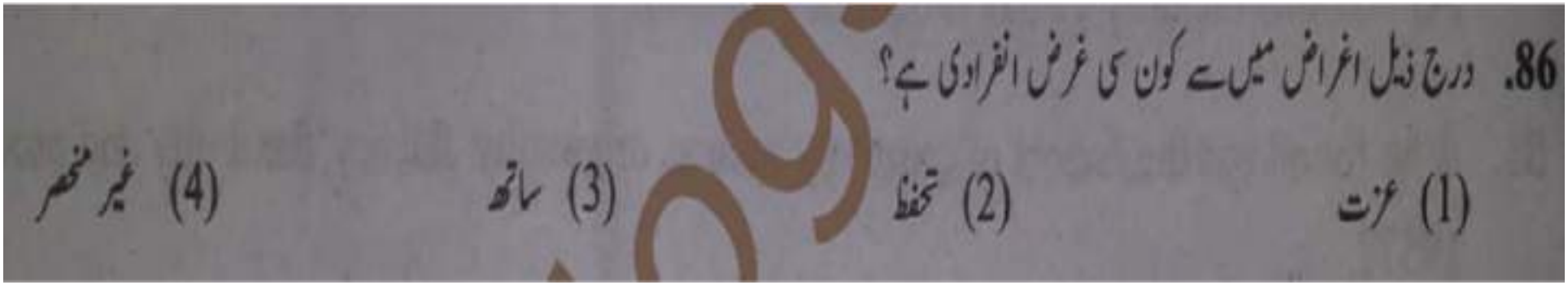
- **Maslow's hierarchy of needs**



86. Which of the following is a personal need?

(1) prestige (2) safety

(3) Companionship (4) Dependency



86. درج ذیل اغراض میں سے کون سی غرض انفرادی ہے؟

(1) عزت (2) تحفظ (3) ساتھ (4) غیر منحصر

•National Curriculum Framework- Constructivism

87. Which of the following principle of constructivism is included in National Curriculum Framework?

(1) Knowledge is static, not dynamic in nature.

(2) Local surrounding has no part in students constructivism.

(3) Students construct knowledge with the help of previous knowledge.

(4) Knowledge is not created through cultural interactions.

87. قومی نصابی خاکے میں علم کے تشکیلی نظریہ سے متعلق ذیل میں سے کون سا اصول شامل ہے؟

(1) علم متحرک نہ ہو کر ساکن ہے۔

(2) مقامی ماحول کا طلبہ کے علم کی تشکیل میں زیادہ حصہ نہیں ہوتا

(3) سابقہ معلومات کی بنا پر طلبہ علم کی تشکیل کرتے ہیں۔

(4) تہذیبی بین العمل کے ذریعہ علم کی تشکیل نہیں ہوتی۔

- **Defense Mechanism**

88. If the boss is angry with a clerk, the clerk cannot get angry with the boss. He goes home and vents out his anger on his wife What type of defence mechanism is this?

(1) Projection
(2) Compensation
(3) Displacement
(4) Self punishment

88. کسی کلرک پر افسر غصہ ہو تو کلرک افسر پر غصہ نہیں کر سکتا لیکن گھر آنے پر وہ اپنی بیوی پر غصہ کرتا ہے۔ یہ دفاعی تکنیک کی کون سی قسم ہے؟

(1) تشہیر
(2) تکمیل
(3) ہٹاؤ
(4) خود احتسابی

- **Data collection Techniques**
  - **Interview**
  - **Observation**
  - **Rating Scale**
  - **Questionnaire**

89. Which type of interview helps in reducing anxiety, fear, pressure and misunderstanding in students mind and brings about improvement in their behaviour and increases their adjustment skill?

(1) Research Interview
(2) Diagnostic Interview
(3) Treatment Interview
(4) Informative Interview

89. طلبہ کے دلوں میں فکر، ڈر، دباؤ، غلط فہمی وغیرہ دور کرنے کے لئے ان کے برتاؤ میں سدھار لانا۔ مطابقت کی صلاحیت بڑھانے کے لئے ذیل میں سے ملاقات کا کون سا طریقہ صادق آتا ہے۔

(1) ملاقات کا حقیقی طریقہ
(2) ملاقات کا تشخیصی طریقہ
(3) ملاقات کا معالجاتی طریقہ
(4) ملاقات پر مبنی معلوماتی طریقہ

STATISTICS

ڈاٹا کے جانچ کی عمل آوری (Processing of Test Data)

تعدتی تقسیم کاری (Frequency Distribution)

ترشیمی پیشکش (Graphical Representation)

مرکزی رجحان (Central Tendency)

انحراف (Variation)

عمودی احتمالی منحنی (Normal Probability Curve-NPC)

فصد (Percentages)

فی صد تقسیم (Percentile)

فی صد تقسیم رینک (Percentile Rank)

ارتباط (Correlation)

STATISTICS

90. Sachin stood 4th in the class of 50 students during a Mathematics test. What is his percentile rank?

(1) 08 (2) 10 (3) 02 (4) 06

90. چوتھی جماعت کے 50 طلبہ میں سے سچن نے ریاضی میں چوتھا مقام حاصل کیا تو اس کا فیصدی درجہ کیا ہوگا؟

06 (4) 02 (3) 10 (2) 08 (1)


Thank
You!!

Welcome

To

The Guidance Camp

On

Teaching Aids

At Iqra College Of Education, Jalgaon.

Presents.....

RIYAZ AHEMAD JAFAR SHAH

Assistant Teacher .

Iqra Urdu High School,

JALGAON.

Meaning of Teaching Aids

As we all know that today's age is the age of science and technology. The teaching learning programmes have also been affected by it. The process of teaching - learning depends upon the different type of equipment available in the classroom.

Need of Teaching Aids

1) Every individual has the tendency to forget. Proper use of teaching aids helps to retain more concept permanently.

2) Students can learn better when they are motivated properly through different teaching aids.

3) Teaching aids develop the proper image when the students see, hear taste and smell properly.

4) Teaching aids provide complete example for conceptual thinking.

5) The teaching aids create the environment of interest for the students.

6) Teaching aids helps to increase the vocabulary of the students.

7) Teaching aids helps the teacher to get sometime and make learning permanent.

8) Teaching aids provide direct experience to the students

Types of Teaching Aids

There are many aids available these days. We may classify these aids as follows-

. Visual Aids
. Audio Aids
. Audio - Visual Aids

1) **Visual Aids**

The aids which use sense of vision are called Visual aids. For example :- actual objects, models, pictures, charts, maps, flash cards, flannel board, bulletin board, chalkboard, overhead projector, slides etc. Out of these black board and chalk are the commonest ones.

2) **Audio Aids**

The aids that involve the sense of hearing are called Audio aids. For example :- radio, tape recorder, gramophone etc.

3) **Audio - Visual Aids**

The aids which involve the sense of vision as well as hearing are called Audio- Visual aids. For example :- television, film projector, film strips etc

Importance of Teaching aids

Teaching aids play an very important role in Teaching- Learning process. Importance of Teaching aids are as follows :-

1) Motivation

Teaching aids motivate the students so that they can learn better.

2) Clarification

Through teaching aids , the teacher clarify the subject matter more easily.

3) Discouragement of Cramming

Teaching aids can facilitate the proper understanding to the students which discourage the act of cramming

4) Increase the Vocabulary

Teaching aids helps to increase the vocabulary of the students more effectively.

5) Saves Time and Money

6) Classroom Live and active

Teaching aids make the classroom live and active.

7) Avoids Dullness

8) Direct Experience

Teaching aids provide direct experience to the students

EDGAR DALE

- **Edgar Dale** (1900 – 1985) was an American educationist who developed the Cone of Experience.
- He made several contributions to audio and visual instruction, including a methodology for analyzing the content of motion pictures.
- Born and raised in North Dakota he received a B.A. and M.A. from the University of North Dakota and a Ph.D. from the University of Chicago.
- His doctoral thesis was titled, "Factual Basis for Curriculum Revision in Arithmetic with Special Reference to Children's Understanding of Business Terms."

Edgar Dale (1900-1985)
Father of Modern Media in Education

Reference: http://en.wikipedia.org/wiki/Edgar_Dale

TEACHING AIDS

" "We remember 20% of what we HEAR
We remember 30% of what we SEE
We remember 50% of what we SEE & HEAR
We remember 90% of what we SAY & DO"

"I hear, I forget
I see, I remember
I do, I understand

The Cone of Learning

sparkinsight.com

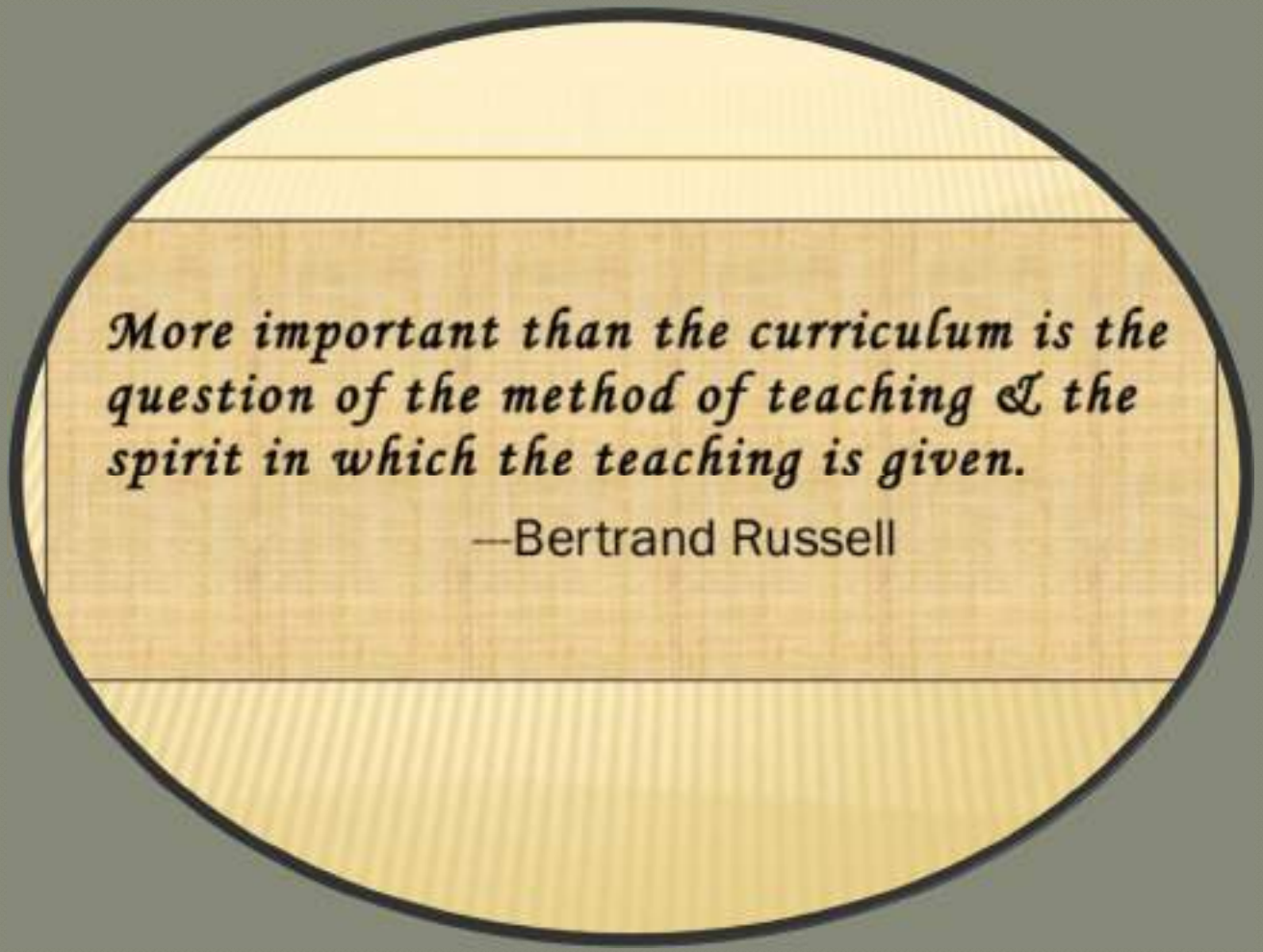
I see and I forget.
I hear and I remember.
I do and I understand.
— Confucius

Source: Edgar Dale (1969)

EFFECTIVE TEACHING SKILLS

- To set noble example as role model.
- To be receptive to new ideas from young minds, even if they appear silly at times.
- To be realistic in goals and objectives and expectations.
- To adjust teaching strategies that go with the classroom situations and conditions.

- To make use of proper educational technology and upgrade the same upon new arrivals.
- To involve willingly and intensely in professional meetings, seminars, workshops and exchanges.
- To understand students myth about teaching in the classroom.
- To explore modern and innovative methods of teaching-learning process.


More important than the curriculum is the question of the method of teaching & the spirit in which the teaching is given.
—Bertrand Russell

If a child can't learn the way we teach,
we should teach the way they learn.

CHARACTERISTICS OF GOOD TEACHING AIDS:

- Ø Meaningful and purposeful
- Ø Motivates the learners
- Ø Accurate in every aspect
- Ø Simple and cheap
- Ø Improvised
- Ø Large in size
- Ø Up-to-date

NEED OF TEACHING AIDS

1) To retain more concept permanently.

2) Students can learn better when they are motivated properly through different teaching aids.

3) Develop the proper image when the students see, hear taste and smell properly.

4) Create the environment of interest for the students.

5) Helps the teacher to get sometime and make learning permanent.

6) Provide direct experience to the students.

DEFINITION OF NO COST LOW COST MATERIALS

- Low cost no cost materials are the teaching aids which require no cost or available cheaply, and developed by locally available resources and expedite the process of learning in the classroom.
- Low cost no cost materials are developed from the waste and help the teachers in making the teaching interesting and concrete.

OVER VIEW

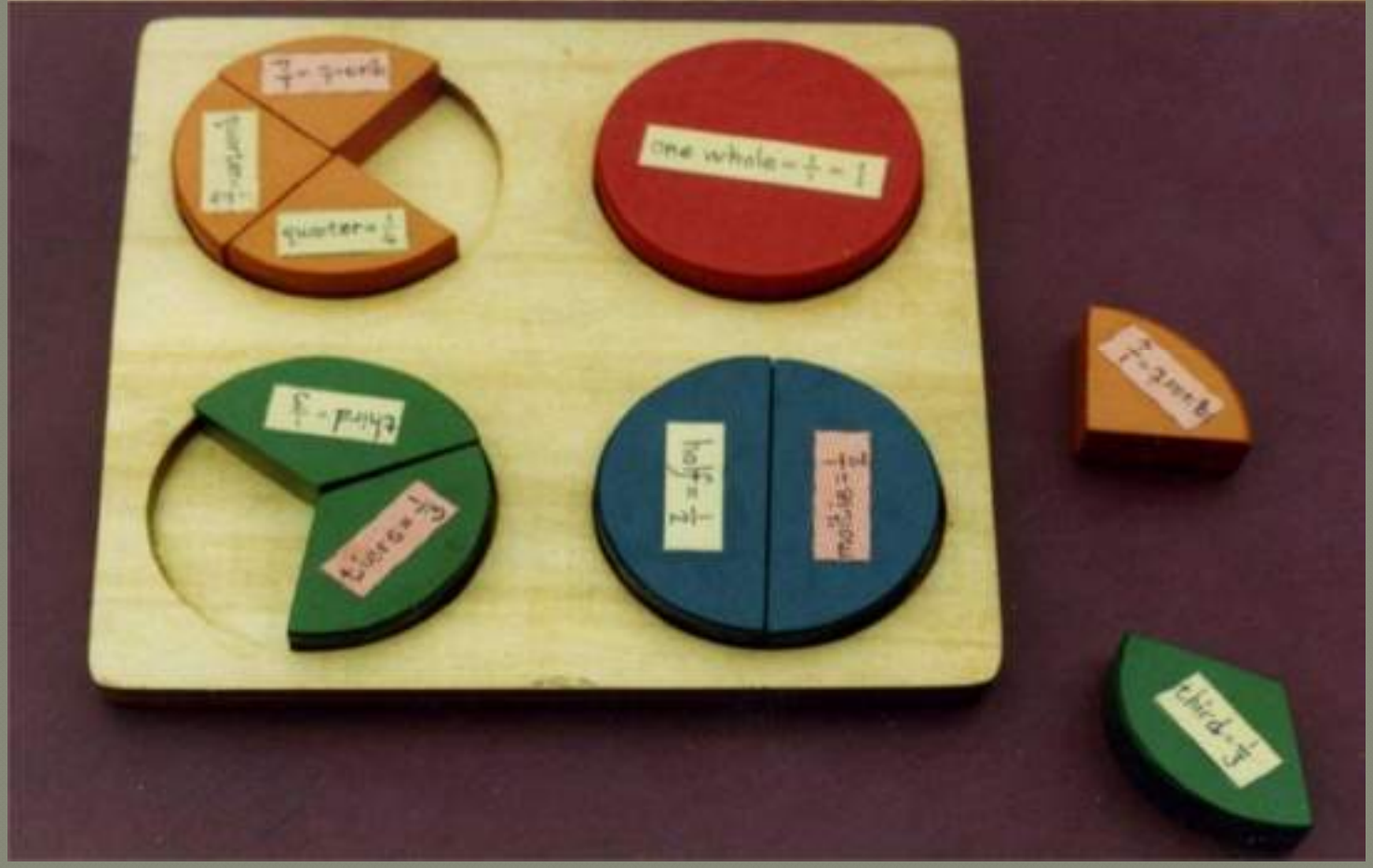
- Objectives
- What is low cost no cost materials?
- Why low cost no cost materials
- How to develop low cost no cost materials?
- How to utilize low cost no cost materials in classroom?

IMPORTANCE OF LOW COST NO COST MATERIALS

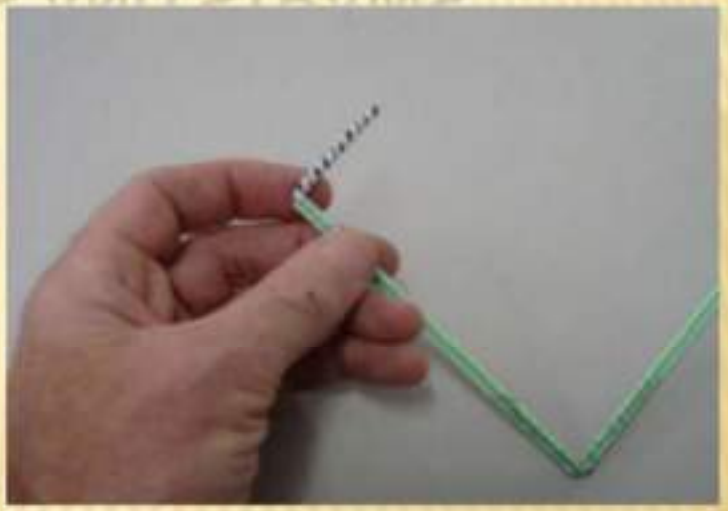
- Low-cost teaching aids can be used in nursery, primary, middle, secondary and senior secondary schools.
- Low-cost teaching aids can be used for supplementary and illustrative education in the sciences as well as the humanities. However, they are most suitable for subjects like science, geography, mathematics and art and crafts.

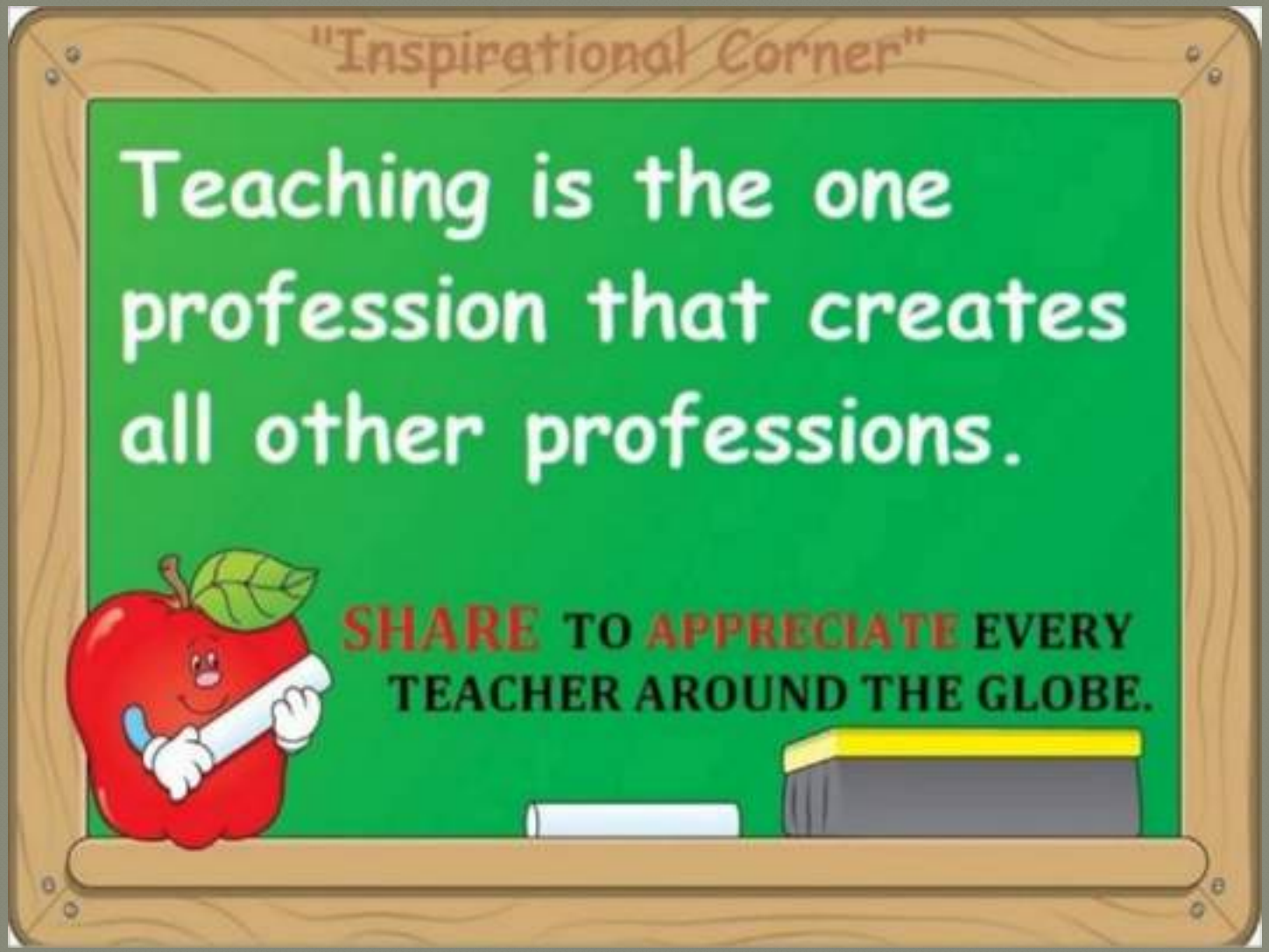
HOW TO MAKE USE OF TEACHING AIDS IN EFFECTIVE TEACHING

CONCEPTS OF SHAPES IN MATH



MATHEMATICAL AND OTHER MODELS WITH PIPE CLEANERS AND STRAWS



"Inspirational Corner"
Teaching is the one profession that creates all other professions.
SHARE TO APPRECIATE EVERY TEACHER AROUND THE GLOBE.

Teaching Aids

"A teacher who loves learning earns the right and the ability to help others learn."

— Ruth Beechick