

**GDC Rajampeta, Annamayya Dt.**  
**Department of Zoology**  
**Activities 2025-26**

<b>1. Name of the Activity</b>	<b>Extension Lecture</b>
<b>2. Name of the lecturer</b>	<b>Dr. N. Chandra Mohan</b>
<b>3. Date</b>	<b>16-07-2025</b>
<b>4. Number of students participated</b>	<b>10</b>
<b>5. Number of faculty involved</b>	<b>01</b>

**6. Aim & Objectives – to the students**

- **Provide more information about Linkage and Crossing over.**
- **Provide knowledge about the Importance of linkage & crossing over**
- **Change the class room environment.**
- **To communicate the students with others.**

**7. Brief Report :**

**Dr. N. Chandra Mohan, Lecturer in Zoology** has given a **Extension lecture** on Linkage and Crossing Over to the second year zoology students at Govt. Degree College, Mydukur, YSR Kadapa Dt. On **16-07-2025**.

- Linkage and crossing over are two key concepts in genetics that describe how genes are inherited. Linkage refers to the tendency of genes located close together on the same chromosome to be inherited together, while crossing over is the process where homologous chromosomes exchange genetic material during meiosis, resulting in new combinations of alleles.
- **Linkage:** It is the phenomenon where genes located close together on the same chromosome are inherited together more often than not.

Mechanism: Genes on the same chromosome tend to stay together during the formation of gametes (sperm and egg cells), reducing the variety of gene combinations in offspring.

**Types:**

**Complete Linkage:** Occurs when genes are so close together that they are always inherited together.

**Incomplete Linkage:** Occurs when genes are far enough apart on the chromosome that crossing over can sometimes separate them.

**Crossing Over:** Crossing over is the exchange of genetic material between non-sister chromatids of homologous chromosomes during meiosis.

**Mechanism:** During meiosis, homologous chromosomes pair up and can swap corresponding segments of DNA. This exchange creates new combinations of alleles on the chromosomes.

**Impact on Variation:** Crossing over increases genetic variation by creating new allele combinations that were not present in the parent organisms.

**Relationship with Linkage:**

Crossing over can break up the linkage between genes, especially if they are located farther apart on the chromosome.

Programme outputs :

- Students gain more knowledge about linkage and crossing over.
- Students felt very happy about this programme.



Mydukur, Andhra Pradesh, India  
Ppqw+r9h, Mydukur, Andhra Pradesh 516172, India  
Lat 14.739152° Long 78.74689°  
16/07/2025 12:34 PM GMT +05:30



Mydukur, Andhra Pradesh, India  
Ppqw+r9h, Mydukur, Andhra Pradesh 516172, India  
Lat 14.739483° Long 78.747144°  
16/07/2025 12:30 PM GMT +05:30

**Extension lecture by Dr. N. Chandra Mohan, Lecturer in Zoology**

GOVT. DEGREE COLLEGE, MYDUKUR, YSR DIST

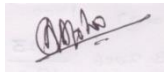
GUEST LECTURE

ATTENDANCE CERTIFICATE

This is to certify that Dr. N Chandra Mohan, Lecturer in Zoology,  
Govt. Degree College, Rajampeta, Annamayya (Dist) has given a Guest Lecture on  
"LINKAGE AND CROSSING OVER" to our college B.Sc- Zoology honors  
3<sup>rd</sup> semester students on 16-07-2025.

17.7.2025

Principal  
Govt. Degree College  
MYDUKUR-515172  
ADAPA DIST  
16/7/25



**Signature of the lecturer: Dr. N. Chandra Mohan**