

Biology Comprehensive Skills Review (Unit 1 & 2)



تم تحميل هذا الملف من موقع المناهج الإماراتية

موقع المناهج ⇨ المناهج الإماراتية ⇨ الصف التاسع المتقدم ⇨ علوم ⇨ الفصل الثالث ⇨ ملفات متنوعة ⇨ الملف

تاريخ إضافة الملف على موقع المناهج: 2026-06-12 11:51:19

ملفات اكتب للمعلم اكتب للطالب | اختبارات الكترونية | اختبارات | حلول | عروض بوربوينت | أوراق عمل
منهج انجليزي | ملخصات وتقارير | مذكرات وبنوك | الامتحان النهائي | للمدرس

المزيد من مادة
علوم:

إعداد: Elhddad Ahmed .Mr

التواصل الاجتماعي بحسب الصف التاسع المتقدم



صفحة المناهج
الإماراتية على
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

المزيد من الملفات بحسب الصف التاسع المتقدم والمادة علوم في الفصل الثالث

ورقة عمل متكاملة عن الجهاز الجليدي

1

درس الأدوية وتأثيرها على الجهاز العصبي

2

The Senses

3

Structure of The Nervous System

4

L1 and 2 Review - Nervous System

5

Biology Comprehensive Skills Review (Unit 1 & 2)

Grade 9 Advanced - Term 3 (2025-2026)
Teacher: Mr. Ahmed Elhddad "The First Bio Teacher"

Section 1: Multiple Choice Questions

- Which ratio is the most efficient for moving nutrients into a cell?**
A. 1:1 B. 2:1 C. 3:1 D. 6:1
- In which part of the male reproductive system do sperm cells mature?**
A. Testes
B. Epididymis
C. Vas deferens
D. Seminal vesicles
- What happens during the G2 stage of Interphase?**
A. DNA replication
B. Growth and normal functions
C. Preparation for division
D. Cytokinesis
- A zygote has a total of 46 chromosomes. How many did it receive from each gamete?**
A. 46 B. 23 C. 92 D. 12
- Correct order of development:**
A. Zygote -> Blastocyst -> Morula |
B. Morula -> Zygote -> Blastocyst |
C. Zygote -> Morula -> Blastocyst
- What is the result of nondisjunction during meiosis?**
A. Identical cells
B. Abnormal chromosome numbers
C. Cancer
D. Binary fission
- The 'hCG' hormone is important because it:**
A. Produces milk
B. Maintains corpus luteum
C. Causes contractions
D. Increases placenta area
- Cancer is best defined as:**
A. Programmed death B. Stem cell growth
C. Uncontrolled cell division D. Tissue repair

9. **During the second trimester, which of the following occurs?**
A. Heart beats
B. Fingerprints form
C. All systems finish
D. Full birth weight
10. **A cell with '2n' number of chromosomes is:**
A. Haploid
B. Diploid
C. Gamete
D. Egg cell
11. **Where does implantation of the blastocyst occur?**
A. Oviduct
B. Ovary
C. Uterus wall
D. Cervix
12. **Which protein/enzyme complex starts cell cycle activities?**
A. Carcinogens
B. Cyclin/CDK
C. Histones
D. Centromeres
13. **Crossing over occurs during which phase?**
A. Prophase I
B. Metaphase II
C. Anaphase I
D. Telophase II
14. **What structure provides a protective cushion for the embryo?**
A. Yolk sac
B. Allantois
C. Amniotic sac
D. Chorion
15. **How many daughter cells are produced at the end of Meiosis II?**
A. 2 Identical
B. 2 Different
C. 4 Identical
D. 4 Different
16. **Based on Figure 13, if two homologous chromosomes carry different instructions for the same trait, it is because:**
A. Replicated in S-phase
B. Different centromeres
C. Different alleles/versions of gene
D. One is an autosome

17. **If fertilization occurred without meiosis, the chromosome number would:**
- A. Remain $2n$
 - B. Double to $4n$
 - C. Reduce to n
 - D. Become $3n$
18. **The significance of Crossing Over is to:**
- A. Ensure identity
 - B. Increase genetic variation
 - C. Prevent nondisjunction
 - D. Repair DNA
19. **Which feature of Meiosis explains why you look different from siblings?**
- A. Two divisions
 - B. Lining up at equator
 - C. Non-identical haploid cells
 - D. Set formation
20. **A karyotype with 22 pairs of autosomes and 'XY' is:**
- A. Female/Down
 - B. Normal Male
 - C. Klinefelter Male
 - D. Turner Female
21. **Nondisjunction in Meiosis I results in how many normal (n) gametes?**
- A. 0 B. 2 C. 4 D. 1
22. **Monosomy vs Trisomy:**
- A. 47 vs 45
 - B. Autosome vs Sex
 - C. 1 copy vs 3 copies
 - D. Both are binary fission
23. **Karyotype showing three copies of chromosome 21 confirms:**
- A. Patau
 - B. Edward
 - C. Down Syndrome
 - D. Turner
24. **Which genotype leads to a male phenotype but abnormal development?**
- A. XO B. XXX C. XXY D. OY
25. **Which stem cell type has the highest potential?**
- A. Adult
 - B. Embryonic
 - C. Specialized RBC
 - D. Fat cells

26. **Why does 'OY' genotype result in death?**
A. Y is too large
B. Lacks essential X-info
C. Extra chr 21
D. Umbilical failure
27. **Difference between Anaphase I and Anaphase II:**
A. I-Sister/II-Homologous
B. I-Homologous/II-Sister
C. Crossing over
D. DNA replication
28. **Ethical debate in stem cells centers on:**
A. Source (embryo)
B. Cost
C. Inability to differentiate
D. Telomere cancer
29. **If human $2n = 46$, how many in sperm after Meiosis II?**
A. 46 B. 23 C. 92 D. 22
30. **Short telomeres indicate:**
A. Young embryo
B. Aging/Cancer cell
C. Middle Prophase I
D. Haploid gamete
31. **Where does fertilization usually occur?**
A. Uterus
B. Vagina
C. Oviduct
D. Corpus luteum
32. **Which diagnostic test uses sound waves?**
A. Amniocentesis
B. CVS
C. Ultrasound
D. Karyotyping
33. **A karyotype showing XXY is:**
A. Down Syndrome
B. Klinefelter
C. Turner
D. Normal
34. **The process of releasing an egg is:**
A. Fertilization
B. Ovulation
C. Implantation
D. Cleavage

35. Which is a trait?

- A. DNA
- B. Hair Color
- C. Cytoplasm
- D. Organelle

Section 2: Short Answer & Skill Questions

- Calculate SA:Vol ratio for a cube with side 4cm.
- Explain why undescended testes lead to infertility.
- Compare FSH and LH roles in ovaries vs testes.
- Based on negative feedback, what happens to FSH when testosterone is high?
- Why is folic acid crucial for pregnant mothers?
- Describe the G0 stage and give an example of a cell that enters it.
- Describe the role of the acrosome in fertilization.

- Contrast embryonic and adult stem cells potential.
- What are two main developments in the third trimester?
- Why is 'crossing over' essential for species survival?

Section 3: Scientific Terminology

- _____ : The relaxed form of DNA in the nucleus.
- _____ : The release of an egg from the ovary (day 14).
- _____ : A cell that can become any specialized cell.
- _____ : The period from fertilization until birth.
- _____ : Identical copies of DNA making a chromosome.
- _____ : Structure connecting fetus to placenta.
- _____ : Substances like tobacco known to cause cancer.
- _____ : Solid ball of cells formed by cleavage.
- _____ : Chromosome pairs carrying genes for same traits.

_____ : Removal of fluid around fetus for genetic testing.

_____ : Functional unit controlling inherited traits.

_____ : Cell formed when two haploid gametes combine.

_____ : Exchange of segments between homologous chromosomes.

_____ : Micrograph of arranged homologous chromosomes.

_____ : Failure of sister chromatids to separate.

_____ : Protective caps at the ends of chromosomes.

_____ : Unspecialized cells that can develop into specialized ones.

_____ : Having only one copy of a particular chromosome.

_____ : Process of unspecialized cell becoming specialized.

_____ : Chromosomes that are not sex chromosomes.

Section 4: Comparison & Completion Table

Condition Name	Genotype	Chromosome Count	Phenotype/Result
Normal Female	XX	46	Genetically female
Turner's Syndrome			Female features
Klinefelter's	XXY	47	
Trisomy 21	XX or XY		Down Syndrome
Non-viable		45	Death
