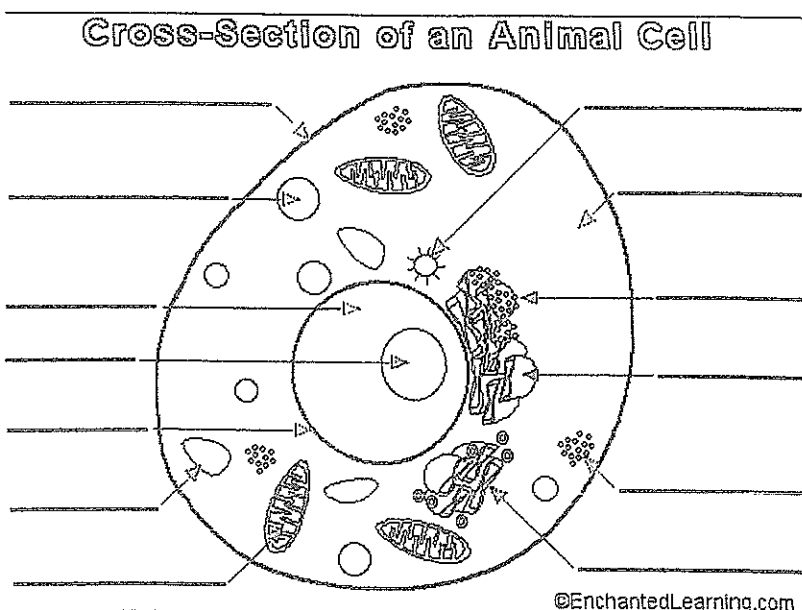
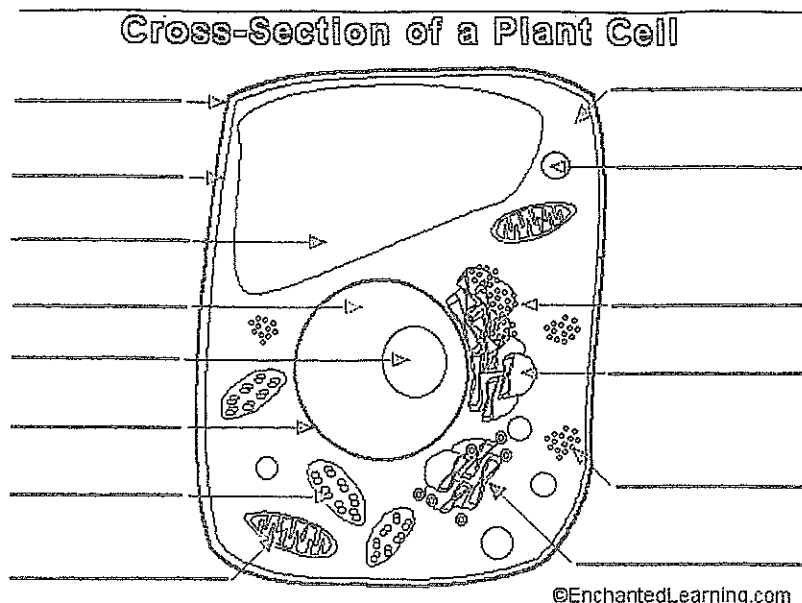


## YEAR 10 REVISION -

## BIOLOGY COURSE

1. Label and write functions of organelles



2. Name 3 differences between sexual and asexual reproduction.

- i. \_\_\_\_\_
- ii. \_\_\_\_\_
- iii. \_\_\_\_\_

3. Give 4 different types of asexual reproduction and explain how each produces new offspring.

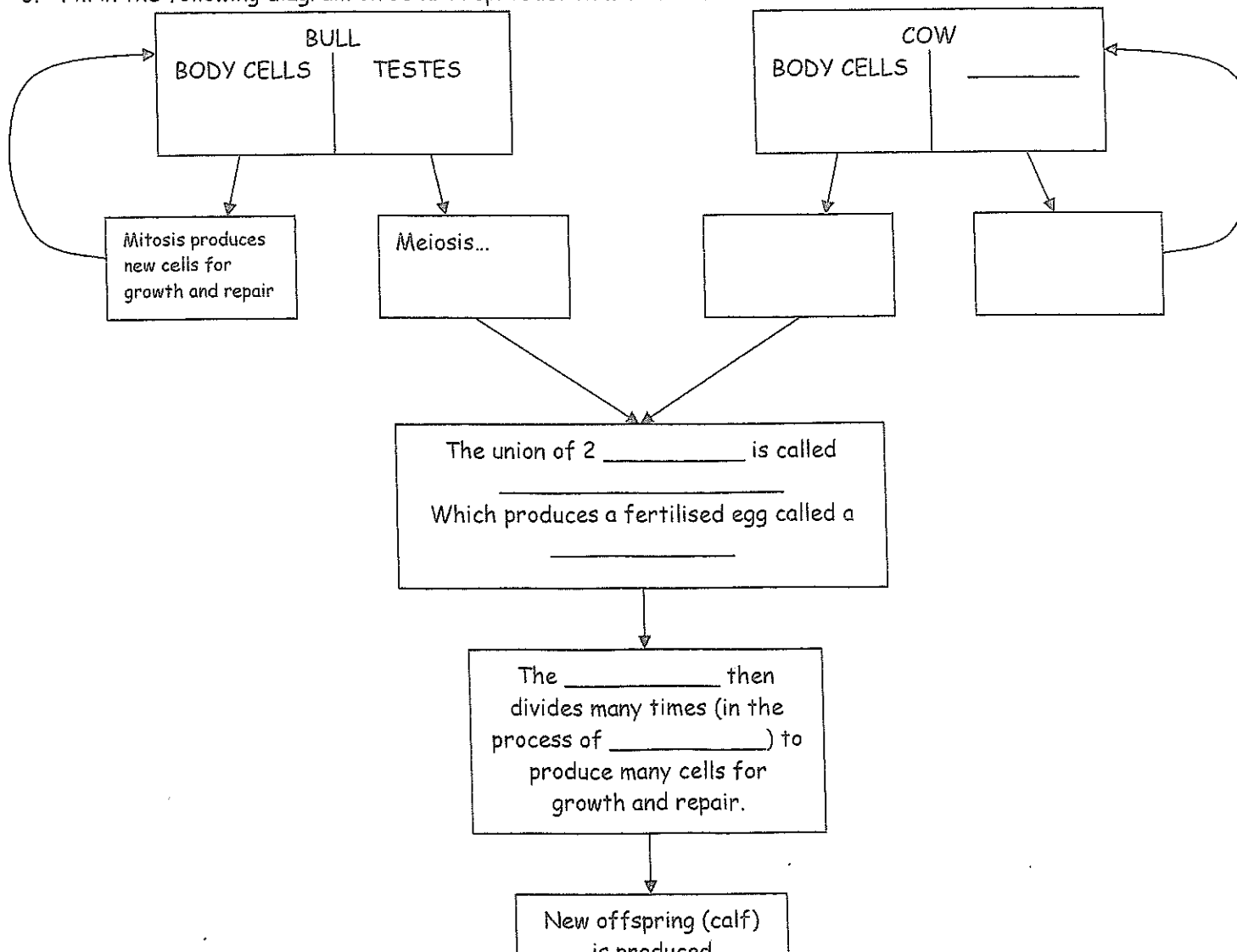
- i. \_\_\_\_\_
- ii. \_\_\_\_\_
- iii. \_\_\_\_\_
- iv. \_\_\_\_\_

4. Fill in the following table. Give 2 different types of sexual reproduction and explain how each produces new offspring. What are the advantages and disadvantages of each method?

SEXUAL REPRODUCTIVE METHOD	ADVANTAGES	DISADVANTAGES
1.  The new offspring are produced by...		The eggs could be washed away or _____ by another animal so the potential losses could be great.
2.  The new offspring are produced by...	The gametes remain in a watery environment during transfer and therefore they don't dry out.	

5. Which type of reproductive method is the best? Why? (Explain your answer.) \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

6. Fill in the following diagram on sexual reproduction with the correct words.



7. A chromosome is a structure that holds our genetic information.

Q- Name the chemical that makes up a chromosome.

A-

Q- Name the chemical that pairs off with cytosine.

A-

Q- Name the two substances that make up the backbone of a chromosome.

A-

Q- How many chromosomes are found in a human bone cell?

A-

Q- Sperm and ova are known as:

A-

Q- Define a zygote.

A-

Q- How many sets of chromosomes does a haploid cell have?

A-

Q- Name the type of cell division that gives rise to variation.

A-

Q- Complete the following table. (Change font colour to black for the answers).

	Meiosis	Mitosis
Type of daughter cell		
Number of cell divisions		
Place of occurrence		
State of daughter cells		
Number of daughter cells		

8.

Define these terms.

a Autosome

b Karyotype

c

How many chromosomes do humans have in:

a skin cells?

b liver cells?

c sperm?

d ovum?

e nerve cells?

f Describe how the sex of a human baby is determined.

10.

A karyotype of a human baby is shown at the right.

a What sex is the baby? Explain how you know.

b How many chromosomes does the baby have?

c How many chromosomes did the mother pass on to baby?

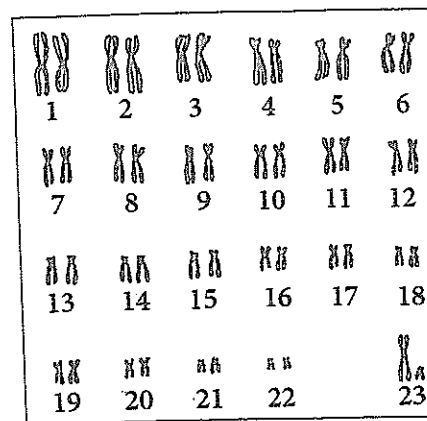
d How many chromosomes did the father pass on to baby?

e How many chromosomes are there in the mother's skin cells?

f How many chromosomes are there in the mother's eggs?

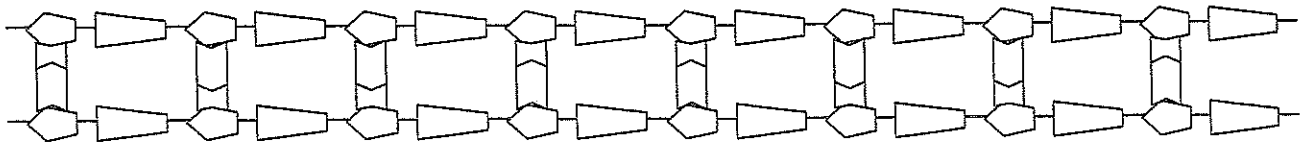
g How many chromosomes are there in the father's sperm?

h How many chromosomes are there in the father's skin cells?



Karyotype of a human baby

11. Label the following diagram of a DNA molecule. What is found in the real thing but not shown in the following diagram? What is most likely to occur at the 2 ends of the diagram?



12. Wound up DNA does not look like the diagram in question 11.

a. Draw a labelled sketch of what a wound up DNA molecule looks like.

b. Why are there 2 forms of DNA? One wound up and the other unwound. \_\_\_\_\_

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13. Fill in the following table which shows the difference between Meiosis and Mitosis.

	MITOSIS	MEIOSIS
WHERE OCCURING		
No. OF DIVISIONS		
No. CELLS PRODUCED		
HAPLOID/ DIPLOID CELL		
USED FOR		