

IGCSE Cambridge Topical Past Papers

BIOLOGY 9-1

0970 | Paper 1

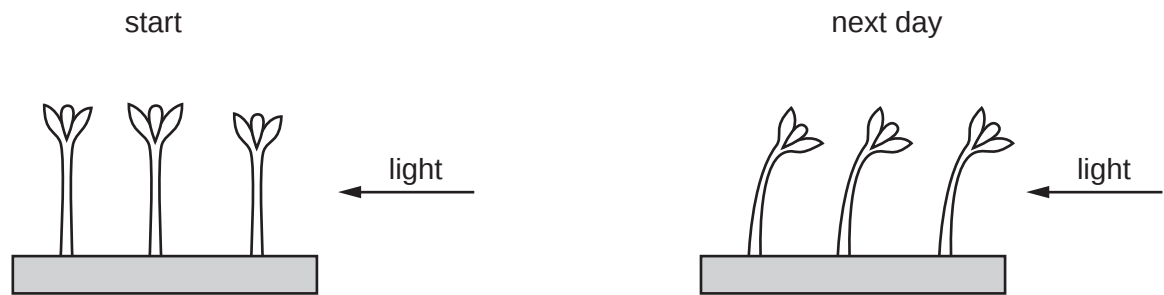
2020 — 2025

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1 - (0970/11_Summer_2020_Q1)

The diagram shows what happened in an experiment with plant seedlings.



Which characteristic of living things made the seedlings grow towards the light?

- A excretion
- B nutrition
- C respiration
- D sensitivity

2 - (0970/11_Summer_2020_Q2)

A rat has the scientific name *Rattus rattus*.

What do the two parts of this name refer to?

- A genus and species
- B kingdom and genus
- C kingdom and species
- D variety and genus

3 - (0970/11_Summer_2020_Q3)

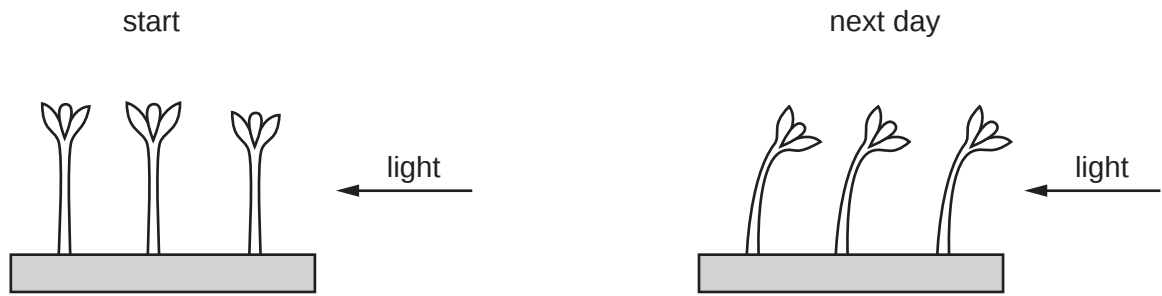
An animal can swim, has a backbone and produces milk.

To which group does it belong?

- A amphibians
- B fish
- C mammals
- D reptiles

4 - (0970/12_Summer_2020_Q1)

The diagram shows what happened in an experiment with plant seedlings.



Which characteristic of living things made the seedlings grow towards the light?

- A excretion
- B nutrition
- C respiration
- D sensitivity

5 - (0970/12_Summer_2020_Q2)

A rat has the scientific name *Rattus rattus*.

What do the two parts of this name refer to?

- A genus and species
- B kingdom and genus
- C kingdom and species
- D variety and genus

6 - (0970/12_Summer_2020_Q3)

Which list contains **only** arthropods?

- A amphibians, insects, myriapods
- B arachnids, crustaceans, myriapods
- C crustaceans, insects, fish
- D insects, myriapods, reptiles

7 - (0970/12_Winter_2020_Q1)

Which process is carried out by all organisms?

- A** growth
- B** photosynthesis
- C** sexual reproduction
- D** transpiration

8 - (0970/12_Winter_2020_Q2)

According to the binomial system, how should a human be named?

- A** *Homo Sapiens*
- B** *Homo sapiens*
- C** *homo Sapiens*
- D** *homo sapiens*

9 - (0970/11_Summer_2021_Q1)

What is a characteristic of all living organisms?

- A** breathing
- B** circulation
- C** egestion
- D** sensitivity

10 - (0970/11_Summer_2021_Q2)

The scientific names of some animals are listed.

- 1 *Camelus dromedarius*
- 2 *Camelus ferus*
- 3 *Equus ferus*
- 4 *Struthio camelus*

Which animals are in the same genus?

- A** 1, 2 and 3 **B** 1, 2 and 4 **C** 1 and 2 only **D** 2 and 3 only

11 - (0970/11_Summer_2021_Q3)

Scientists discover a new species of animal.

It has a segmented body with two pairs of legs on each segment.

To which group of animals does this new species belong?

- A** arachnids
- B** crustaceans
- C** insects
- D** myriapods

12 - (0970/12_Winter_2021_Q2)

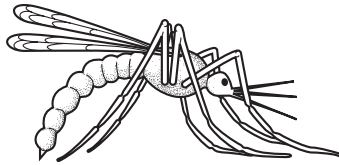
The table shows features of some animals.

Which animal is a mammal?

	gills	hair	scales	wings	key ✓ = present X = absent
A	✓	X	X	X	
B	✓	X	✓	X	
C	X	✓	X	✓	
D	X	X	✓	✓	

13 - (0970/12_Winter_2021_Q3)

The diagram shows an animal.



What is the animal?

- 1 animal with a vertebral column vertebrate
animal with an exoskeleton go to 2
- 2 no distinct head, thorax and abdomen **A**
distinct head, thorax and abdomen go to 3
- 3 eye occupies less than one third of the head **B**
eye occupies more than one third of the head go to 4
- 4 wings are wider than they are long **C**
wings are longer than they are wide **D**

14 - (0970/11_Summer_2022_Q2)

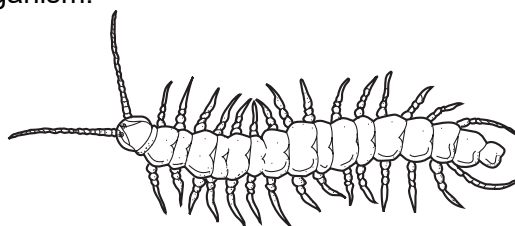
The horse, *Equus ferus*, and the donkey, *Equus asinus*, are able to interbreed. The offspring they produce is called a mule.

Which statement is correct?

- A** The horse and the donkey are the same genus; the mule is infertile.
- B** The horse and the donkey are the same species; the mule is infertile.
- C** The horse and the donkey are the same genus; the mule is fertile.
- D** The horse and the donkey are the same species; the mule is fertile.

15 - (0970/11_Summer_2022_Q3)

The diagram shows an organism.



Which type of arthropod is this organism?

- A** myriapod
- B** insect
- C** crustacean
- D** arachnid

16 - (0970/12_Summer_2022_Q1)

All living organisms release energy from nutrient molecules within their cells.

What is the name of this characteristic?

- A** growth
- B** nutrition
- C** respiration
- D** sensitivity

17 - (0970/12_Summer_2022_Q2)

Which levels of classification are shown in the scientific name of an organism, using the binominal system?

	genus	kingdom	species
A	✓	✓	✓
B	✓	✓	x
C	✓	x	✓
D	x	✓	✓

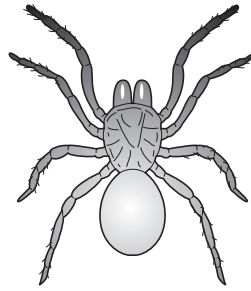
key

✓ = yes

x = no

18 - (0970/12_Summer_2022_Q3)

The diagram shows an arthropod that lives on land.



To which group of arthropods does this animal belong?

- A** arachnids
- B** crustaceans
- C** insects
- D** myriapods

19 - (0970/12_Winter_2022_Q2)

Which name is given to a group of individuals that can reproduce to produce fertile offspring?

- A** a genus
- B** a kingdom
- C** a species
- D** an organ system

20 - (0970/12_Winter_2022_Q3)

An animal has four legs, hair and a tail.

To which group of vertebrates does it belong?

- A** amphibians
- B** birds
- C** mammals
- D** reptiles

21 - (0970/11_Summer_2023_Q1)

What are characteristics of all organisms?

- A** egestion and excretion
- B** egestion and nutrition
- C** excretion and nutrition
- D** excretion and photosynthesis

22 - (0970/11_Summer_2023_Q2)

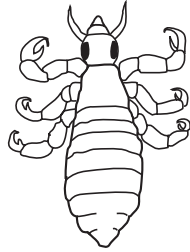
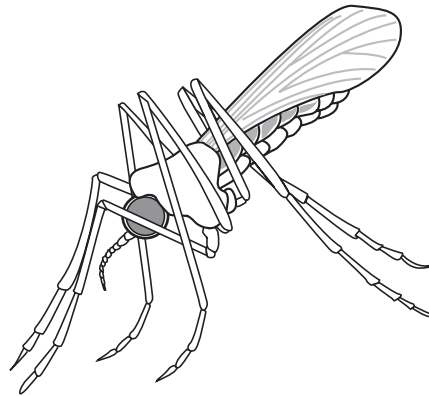
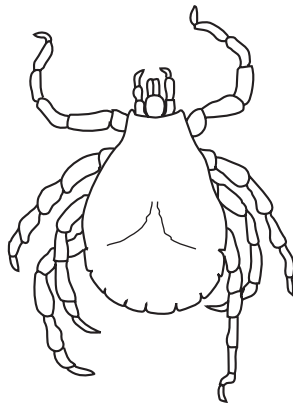
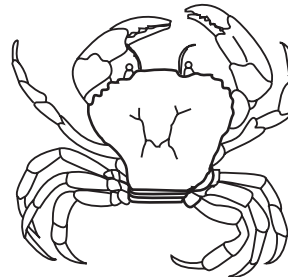
The scientific name for the golden eagle is *Aquila chrysaetos*.

What is the genus of the golden eagle?

- A** *Aquila*
- B** *chrysaetos*
- C** eagle
- D** golden

23 - (0970/11_Summer_2023_Q3)

The diagram shows four arthropods.

*Pediculus* ×20*Anopheles* ×10*Dermacentor* ×7*Carcinus* ×0.5

How many of these arthropods are insects?

- A** 1 **B** 2 **C** 3 **D** 4

24 - (0970/12_Summer_2023_Q2)

Some statements about species are given.

- 1 Members of a species all look identical.
- 2 Members of a species belong to the same genus.
- 3 Members of a species can produce fertile offspring.
- 4 Species are named using an international system.

Which statements are correct?

- A** 1, 2, 3 and 4
B 1, 2 and 3 only
C 2 and 4 only
D 2, 3 and 4 only

25 - (0970/12_Summer_2023_Q3)

The table shows some features of different animals.

Which animal is a reptile?

	wings	hair	scales
A	x	x	✓
B	x	x	x
C	✓	x	✓
D	x	✓	x

26 - (0970/11_Summer_2024_Q2)

The photograph shows an elephant hawk-moth.



Using the features visible in the photograph, to which group of arthropods does the elephant hawk-moth belong?

- A** arachnids
- B** crustaceans
- C** insects
- D** myriapods

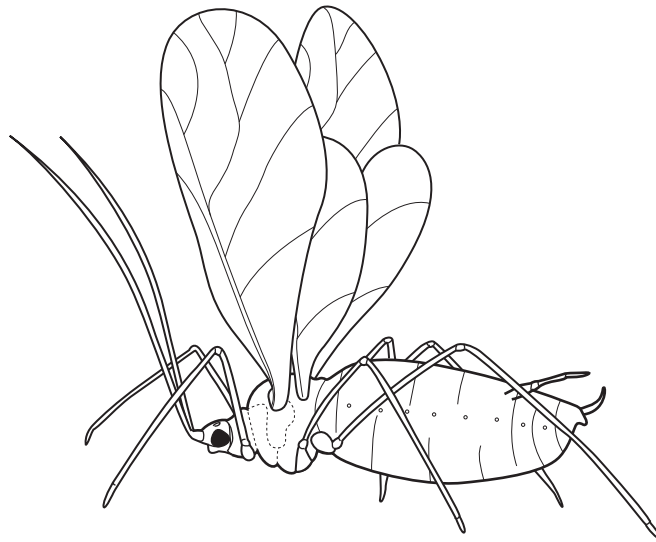
27 - (0970/11_Summer_2024_Q3)

What does the term species mean?

- A** a group of animals that reproduce asexually
- B** a group of organisms that can reproduce to produce fertile offspring
- C** all the plants that live in the same area at the same time
- D** a group of vertebrates that reproduce sexually

28 - (0970/12_Summer_2024_Q2)

The diagram shows an animal.



Use the key to identify the animal.

1	has two wings	go to 2
	has four wings	go to 3
2	has antennae much shorter than legs	A
	has antennae about the same length as legs	B
3	has feathery antennae	C
	has smooth antennae	D

29 - (0970/12_Summer_2024_Q3)

Donkeys and zebras are different species. They can breed to produce an animal called a zedonk.

Zedonks are not fertile.

Which statement is correct?

- A Zedonks and donkeys are the same species.
- B Zedonks and zebras are the same species.
- C Zedonks are a species.
- D Zedonks are **not** a species.

30 - (0970/12_Summer_2024_Q4)

Crabs are arthropods with 10 jointed legs and two pairs of antennae.

To which arthropod class do they belong?

- A arachnids
- B crustaceans
- C insects
- D myriapods

31 - (0970/12_Winter_2024_Q3)

The table shows the scientific names and the common names of four plants.

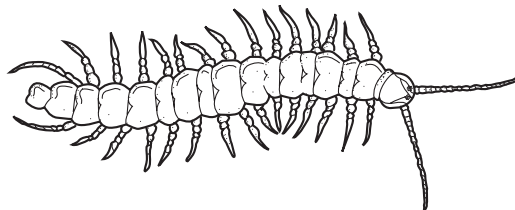
scientific name	common name
<i>Althaea officinalis</i>	marsh mallow
<i>Hottonia palustris</i>	water violet
<i>Viola palustris</i>	marsh violet
<i>Viola tricolor</i>	wild pansy

Which word is a genus name?

- A marsh
- B *palustris*
- C *Viola*
- D violet

32 - (0970/12_Winter_2024_Q4)

The diagram shows an arthropod.

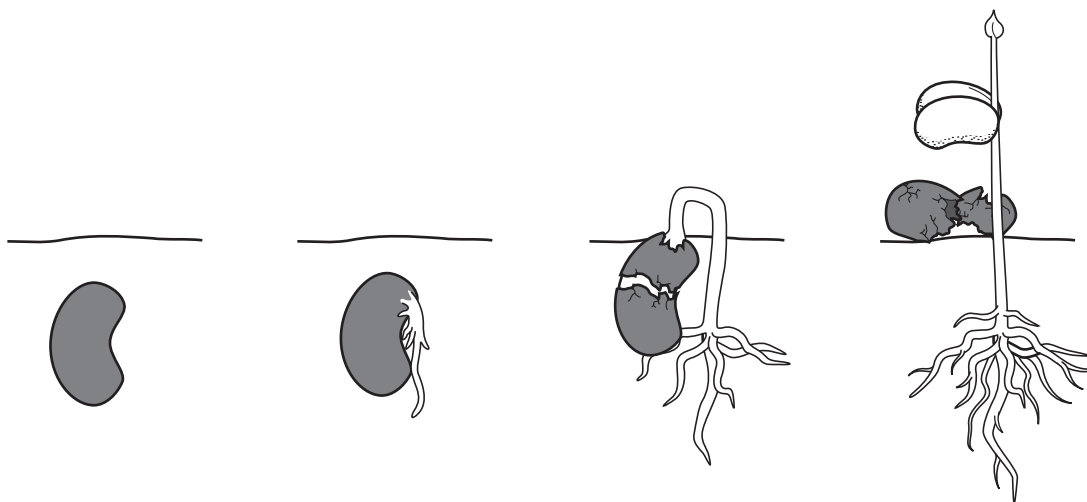


Which group does this arthropod belong to?

- A arachnid
- B crustacean
- C insect
- D myriapod

33 - (0970/11_Summer_2025_Q1)

The diagram shows how a seed changes after it is planted in soil and watered.



Which characteristics of living things are demonstrated by the sequence shown in the diagram?

- A growth only
- B growth and sensitivity
- C nutrition and reproduction
- D reproduction and sensitivity

34 - (0970/11_Summer_2025_Q2)

Which row describes each part of the binominal system name for humans?

	<i>Homo</i>	<i>sapiens</i>
A	genus	kingdom
B	genus	species
C	species	genus
D	species	kingdom

35 - (0970/11_Summer_2025_Q3)

What are the characteristics of fish?

	maintain a constant body temperature	eggs covered in jelly	external ears present	scales present
A	yes	no	yes	no
B	yes	yes	no	yes
C	no	no	yes	no
D	no	yes	no	yes

36 - (0970/12_Summer_2025_Q1)

When a herbivore sees a carnivore, which characteristic of living things is involved?

- A** excretion
- B** growth
- C** reproduction
- D** sensitivity

37 - (0970/12_Summer_2025_Q2)

Which organism has been named using the binomial system?

- A** *Brown seaweed*
- B** *Polar bear*
- C** *Red fox*
- D** *Vulpes vulpes*

38 - (0970/12_Summer_2025_Q3)

Which list contains **only** arthropods?

- A** amphibians, insects, myriapods
- B** arachnids, crustaceans, myriapods
- C** crustaceans, insects, fish
- D** insects, myriapods, reptiles

39 - (0970/12_Winter_2025_Q1)

Which process causes a permanent increase in the dry mass of an organism?

- A** digestion
- B** growth
- C** reproduction
- D** respiration

40 - (0970/12_Winter_2025_Q2)

The scientific names of some plants are listed.

- 1 *Escallonia resinosa*
- 2 *Ilex glabra*
- 3 *Pinus glabra*
- 4 *Pinus resinosa*
- 5 *Quercus ilex*

Which plants belong to the same genus?

- A** 1 and 4
- B** 2 and 3
- C** 2 and 5
- D** 3 and 4

41 - (0970/12_Winter_2025_Q3)

An organism has a body with three parts, three pairs of jointed legs and one pair of antennae.

To which group does the organism belong?

- A** arachnids
- B** crustaceans
- C** insects
- D** myriapods

1 – D	21 – C	41 – C	61 –	81 –
2 – A	22 – A	42 –	62 –	82 –
3 – C	23 – B	43 –	63 –	83 –
4 – D	24 – D	44 –	64 –	84 –
5 – A	25 – A	45 –	65 –	85 –
6 – B	26 – C	46 –	66 –	86 –
7 – A	27 – B	47 –	67 –	87 –
8 – B	28 – D	48 –	68 –	88 –
9 – D	29 – D	49 –	69 –	89 –
10 – C	30 – B	50 –	70 –	90 –
11 – D	31 – C	51 –	71 –	91 –
12 – C	32 – D	52 –	72 –	92 –
13 – B	33 – B	53 –	73 –	93 –
14 – A	34 – B	54 –	74 –	94 –
15 – A	35 – D	55 –	75 –	95 –
16 – C	36 – D	56 –	76 –	96 –
17 – C	37 – D	57 –	77 –	97 –
18 – A	38 – B	58 –	78 –	98 –
19 – C	39 – B	59 –	79 –	99 –
20 – C	40 – D	60 –	80 –	100 –

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