



Year 10 Science

Term 2

Homework

Booklet

Name: _____

Teacher : _____

Class: _____

<i>Homework</i>	<i>Pages</i>	<i>Due</i>
<i>B10 – Homeostasis</i>	<i>3-4</i>	
<i>B11 – Hormonal Control</i>	<i>5-8</i>	
<i>C6 – Electrolysis</i>	<i>9-10</i>	
<i>P3 – Energy Resources</i>	<i>11-12</i>	
<i>B13 – Reproduction</i>	<i>13-16</i>	
<i>C7 – Energy Changes</i>	<i>17-18</i>	

Introduction

Why is it important?

Learning at home is very important; it will help you become a more confident learner by developing your key skills within the subject.

In Science the purpose of learning at home is to:

- Help you to find time and develop your understanding of science in the world
- Help you to build confidence in your knowledge and skills.
- Help you to apply the topics covered in lessons to work outside of lessons

What do I have to do?

Every week you will be expected to complete a section of your homework booklet.

Tasks will vary depending on the skill you are working on, however, each week will contain either:

- A section of the knowledge organiser
- Practice questions

You will have time in lesson to peer mark one another's work and your teacher will check that you have completed the work to a good standard.

What if I get stuck?









If you are unsure with what to do, or need a hand please see Mr Zulfiqar who will be happy to help

Useful resources include:

- Asking your class teacher
- Asking an adult at home to help
- The CGP revision booklet
- GCSE Bitesize
- Youtube

<div data-bbox="140 248 767 300" data-label="Text"> <p>Science Homework B10 - Homeostasis</p> </div> <div data-bbox="295 414 592 448" data-label="Text"> <p>1 - What is Homeostasis?</p> </div> <div data-bbox="545 602 764 678" data-label="Image"> </div>	<div data-bbox="831 248 1458 300" data-label="Text"> <p>Science Homework B10 - Homeostasis</p> </div> <div data-bbox="904 396 1385 465" data-label="Text"> <p>2 - State three conditions the body needs to maintain at optimal conditions.</p> </div> <div data-bbox="1238 602 1458 678" data-label="Image"> </div>
<div data-bbox="140 730 767 781" data-label="Text"> <p>Science Homework B10 - Homeostasis</p> </div> <div data-bbox="167 896 718 931" data-label="Text"> <p>3 - What is the central nervous system made up of?</p> </div> <div data-bbox="545 1079 764 1155" data-label="Image"> </div>	<div data-bbox="831 730 1458 781" data-label="Text"> <p>Science Homework B10 - Homeostasis</p> </div> <div data-bbox="893 896 1396 931" data-label="Text"> <p>4 - What does the central nervous system do?</p> </div> <div data-bbox="1238 1079 1458 1155" data-label="Image"> </div>
<div data-bbox="140 1218 767 1270" data-label="Text"> <p>Science Homework B10 - Homeostasis</p> </div> <div data-bbox="170 1346 715 1451" data-label="Text"> <p>5 - What pathway does a nervous impulse travel in the reflex arc? stimulus →</p> </div> <div data-bbox="545 1563 764 1639" data-label="Image"> </div>	<div data-bbox="831 1218 1458 1270" data-label="Text"> <p>Science Homework B10 - Homeostasis</p> </div> <div data-bbox="922 1384 1364 1420" data-label="Text"> <p>6 - What is the purpose of the reflex arc.</p> </div> <div data-bbox="1238 1563 1458 1639" data-label="Image"> </div>
<div data-bbox="140 1702 767 1753" data-label="Text"> <p>Science Homework B10 - Homeostasis</p> </div> <div data-bbox="212 1870 675 1906" data-label="Text"> <p>7 - Why are reflex actions extremely rapid?</p> </div> <div data-bbox="545 2051 764 2128" data-label="Image"> </div>	<div data-bbox="831 1702 1458 1753" data-label="Text"> <p>Science Homework B10 - Homeostasis</p> </div> <div data-bbox="884 1870 1407 1906" data-label="Text"> <p>8 - What is the ruler drop test used to measure?</p> </div> <div data-bbox="1238 2051 1458 2128" data-label="Image"> </div>

<div data-bbox="135 248 762 300" data-label="Text"> <p>Science Homework B10 - Homeostasis</p> </div> <div data-bbox="167 416 212 450" data-label="Text"> <p>2 -</p> </div> <div data-bbox="534 607 754 687" data-label="Image"> </div>	<div data-bbox="826 248 1453 300" data-label="Text"> <p>Science Homework B10 - Homeostasis</p> </div> <div data-bbox="866 416 908 450" data-label="Text"> <p>1 -</p> </div> <div data-bbox="1230 607 1453 687" data-label="Image"> </div>
<div data-bbox="135 730 762 781" data-label="Text"> <p>Science Homework B10 - Homeostasis</p> </div> <div data-bbox="167 904 209 938" data-label="Text"> <p>4 -</p> </div> <div data-bbox="534 1086 754 1167" data-label="Image"> </div>	<div data-bbox="826 730 1453 781" data-label="Text"> <p>Science Homework B10 - Homeostasis</p> </div> <div data-bbox="802 904 844 938" data-label="Text"> <p>3 -</p> </div> <div data-bbox="1230 1086 1453 1167" data-label="Image"> </div>
<div data-bbox="135 1216 762 1267" data-label="Text"> <p>Science Homework B10 - Homeostasis</p> </div> <div data-bbox="167 1391 209 1424" data-label="Text"> <p>6 -</p> </div> <div data-bbox="534 1572 754 1653" data-label="Image"> </div>	<div data-bbox="826 1216 1453 1267" data-label="Text"> <p>Science Homework B10 - Homeostasis</p> </div> <div data-bbox="866 1391 908 1424" data-label="Text"> <p>5 -</p> </div> <div data-bbox="1230 1572 1453 1653" data-label="Image"> </div>
<div data-bbox="135 1702 762 1753" data-label="Text"> <p>Science Homework B10 - Homeostasis</p> </div> <div data-bbox="167 1877 209 1910" data-label="Text"> <p>8 -</p> </div> <div data-bbox="534 2060 754 2141" data-label="Image"> </div>	<div data-bbox="826 1702 1453 1753" data-label="Text"> <p>Science Homework B10 - Homeostasis</p> </div> <div data-bbox="866 1877 908 1910" data-label="Text"> <p>7 -</p> </div> <div data-bbox="1230 2060 1453 2141" data-label="Image"> </div>

<p>Science Homework B11 - Hormonal Control</p> <p>9 - What is a hormone?</p> <p></p>	<p>Science Homework B11 - Hormonal Control</p> <p>10 - Which organ monitors blood glucose concentration?</p> <p></p>
<p>Science Homework B11 - Hormonal Control</p> <p>11 - How is blood glucose level returned to normal after eating a sugary food?</p> <p></p>	<p>Science Homework B11 - Hormonal Control</p> <p>12 - How is blood glucose level returned to normal after it drops too low?</p> <p></p>
<p>Science Homework B11 - Hormonal Control</p> <p>13 - What is type 1 diabetes?</p> <p></p>	<p>Science Homework B11 - Hormonal Control</p> <p>14 - What is type 2 diabetes?</p> <p></p>
<p>Science Homework B11 - Hormonal Control</p> <p>15 - How is type 1 diabetes treated?</p> <p></p>	<p>Science Homework B11 - Hormonal Control</p> <p>16 - How is type 2 diabetes treated?</p> <p></p>

Science Homework

B11 - Hormonal Control



Science Homework

B11 - Hormonal Control



Science Homework

B11 - Hormonal Control



Science Homework

B11 - Hormonal Control



Science Homework

B11 - Hormonal Control



Science Homework

B11 - Hormonal Control



Science Homework

B11 - Hormonal Control



Science Homework

B11 - Hormonal Control



Science Homework

B11 - Hormonal Control

17 - Name the hormone responsible for sperm production in males.



Science Homework

B11 - Hormonal Control

18 - What is the role of FSH in the menstrual cycle?



Science Homework

B11 - Hormonal Control

19 - What is the role of oestrogen in the menstrual cycle?



Science Homework

B11 - Hormonal Control

20 - What is the role of LH in the menstrual cycle?



Science Homework

B11 - Hormonal Control

21 - Which hormones are used in the contraceptive pill?



Science Homework

B11 - Hormonal Control

22 - Give examples of hormonal methods of contraception.



Science Homework

B11 - Hormonal Control

23 - Give examples of non-hormonal methods of contraception.



Science Homework

B11 - Hormonal Control

24 - What are the stages of IVF?



Science Homework

B11 - Hormonal Control



Science Homework

B11 - Hormonal Control



Science Homework

B11 - Hormonal Control



Science Homework

B11 - Hormonal Control



Science Homework

B11 - Hormonal Control



Science Homework

B11 - Hormonal Control



Science Homework

B11 - Hormonal Control



Science Homework

B11 - Hormonal Control



Science Homework

C6 - Electrolysis

65 - What is electrolysis?



Science Homework

C6 - Electrolysis

66 - Why does lead bromide need to be molten for electrolysis to work?



Science Homework

C6 - Electrolysis

67 - Why is cryolite added in the electrolysis of aluminium oxide?



Science Homework

C6 - Electrolysis

68 - What is the half equation for each electrode in the electrolysis of lead bromide?



Science Homework

C6 - Electrolysis

69 - What is the half equation for each electrode in the electrolysis of aluminium oxide?



Science Homework

C6 - Electrolysis

70 - What are the products from the electrolysis of sodium chloride solution?



Science Homework

C6 - Electrolysis

71 - In the electrolysis of sodium chloride solution why does hydrogen form at the positive electrode?



Science Homework

C6 - Electrolysis

72 - Why does the positive electrode constantly need replacing in the electrolysis of aluminium oxide?



Science Homework

C6 - Electrolysis



Science Homework

C6 - Electrolysis



Science Homework

C6 - Electrolysis



Science Homework

C6 - Electrolysis



Science Homework

C6 - Electrolysis



Science Homework

C6 - Electrolysis



Science Homework

C6 - Electrolysis



Science Homework

C6 - Electrolysis



Science Homework

Energy

9 - A 3kg object is held at a height of 2m.
Calculate the gravitational potential energy of the object.

$$g = 9.8\text{N/kg}$$



Science Homework

Energy

10 - What is the efficiency of a 800W motor that transfers 600W of kinetic energy?



Science Homework

Energy

11 - Name 4 non-renewable energy resources.



Science Homework

Energy

12 - Give three examples of renewable energy resources.



Science Homework

Energy

13 - What are the advantages of renewable energy resources?



Science Homework

Energy

14 - What are the disadvantages of renewable energy resources?



Science Homework

Energy

15 - What are the advantages and disadvantages of nuclear energy?



Science Homework

Energy

16 - What are the advantages and disadvantages of bio-fuels?



Science Homework

Energy



Science Homework

Energy



Science Homework

Energy



Science Homework

Energy



Science Homework

Energy



Science Homework

Energy



Science Homework

Energy



Science Homework

Energy



Science Homework

B13 - Reproduction

1 - What are gametes?



Science Homework

B13 - Reproduction

2 - What is fertilisation?



Science Homework

B13 - Reproduction

3 - What is sexual reproduction?



Science Homework

B13 - Reproduction

4 - What is asexual reproduction?



Science Homework

B13 - Reproduction

5 - By what process are gametes produced?



Science Homework

B13 - Reproduction

6 - How many cell divisions are involved in meiosis?
What is the purpose of this?



Science Homework

B13 - Reproduction

7 - How many chromosomes are in a normal human body cell?



Science Homework

B13 - Reproduction

8 - Describe the structure of DNA



Science Homework

B13 - Reproduction

2 -



Science Homework

B13 - Reproduction

1 -



Science Homework

B13 - Reproduction

4 -



Science Homework

B13 - Reproduction

3 -



Science Homework

B13 - Reproduction

6 -



Science Homework

B13 - Reproduction

5 -



Science Homework

B13 - Reproduction

8 -



Science Homework

B13 - Reproduction

7 -



Science Homework

B13 - Reproduction

9 - Why is it important to understand the human genome?



Science Homework

B13 - Reproduction

10 - What is a gene?



Science Homework

B13 - Reproduction

11 - What is an allele?



Science Homework

B13 - Reproduction

12 - What does dominant mean?



Science Homework

B13 - Reproduction

13 - What does recessive mean?



Science Homework

B13 - Reproduction

14 - What does homozygous mean?



Science Homework

B13 - Reproduction

15 - What does heterozygous mean?



Science Homework

B13 - Reproduction

16 - What type of allele is polydactyl caused by?



Science Homework

B13 - Reproduction

10 -



Science Homework

B13 - Reproduction

9 -



Science Homework

B13 - Reproduction

12 -



Science Homework

B13 - Reproduction

11 -



Science Homework

B13 - Reproduction

14 -



Science Homework

B13 - Reproduction

13 -



Science Homework

B13 - Reproduction

16 -



Science Homework

B13 - Reproduction

15 -



Science Homework

C7 - Energy Changes

73 - What is an exothermic reaction?



Science Homework

C7 - Energy Changes

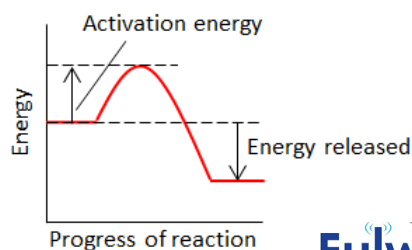
74 - What is an endothermic reaction?



Science Homework

C7 - Energy Changes

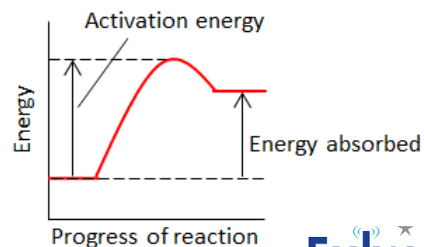
75 - Is this reaction profile for an exothermic or endothermic reaction?



Science Homework

C7 - Energy Changes

76 - Is this reaction profile for an exothermic or endothermic reaction?



Science Homework

C7 - Energy Changes

77 - What is activation energy?



Science Homework

C7 - Energy Changes

78 - Outline a method to measure the energy change of a chemical reaction.



Science Homework

C7 - Energy Changes

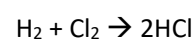
79 - How does a catalyst affect activation energy?



Science Homework

C7 - Energy Changes

80 - Work out the energy change in this reaction



H-H is 436kJ/mol, Cl-Cl is 242kJ/mol,
H-Cl is 431kJ/mol.



Science Homework

C7 - Energy Changes



Science Homework

C7 - Energy Changes



Science Homework

C7 - Energy Changes



Science Homework

C7 - Energy Changes



Science Homework

C7 - Energy Changes



Science Homework

C7 - Energy Changes



Science Homework

C7 - Energy Changes



Science Homework

C7 - Energy Changes

