Science - Summer 1 Week 3 - Home Learning

Session 2

In session 1, we recapped how to retrieve information from a texts, graphs and diagrams. Today, you will be reading a text and answering the questions relating to it. Don’t forget the tips for success:

1. Read the question carefully.

2. Underline/highlight/make a note of key words (or numbers).

3. Scan the text for the key words or numbers.

4. Read the information around the key words.

5. Answer the question.

How to share your work:

* Write your answers into your exercise book and take a picture of your work.
* Type your work directly into this document or use Google Docs.

Once you’ve completed the work, submit your work to Google Classroom following this set of instructions:

1. Go to classroom.google.com
2. Click the class - Classwork - the assignment.
3. To attach an item, click ‘Add or create’ and select ‘Google Drive’, ‘Link’ or ‘File’ depending on what type of file you have created.
4. The status of your work will change to ‘Turned in’.

Text

**Why Exercise?**

Increasingly, experts are concerned about the health of people in England. More specifically, the amount of exercise which is taken by them. It is widely established that regular exercise has many health benefits: a stronger heart, more efficient lungs and the maintenance of a healthy body weight. Furthermore, apart from the physical benefits which exercise provides, there are also well-known mental ones. By exercising, people are generally more alert and the body also releases chemicals, called endorphins, which trigger a positive feeling and add to mental wellbeing.

**How much exercise is enough?**

Clearly, exercise is important, but how much should we do? According to experts, adults should undertake ‘moderately **aerobic\***’ physical activity for an average of ten minutes per day spread over several days. (It’s not enough to do one long walk every two weeks). The recommendation for children aged 5 -18 is to do three types of physical activity each week: aerobic exercise and exercises to strengthen bones and muscles.



What is ‘moderately aerobic’ activity?

In short, it means any exercise that makes you:

* Breathe faster
* Feel warmer
* Increase your heart rate

For example, you could play basketball, volleyball football or netball. Or you could go skateboarding, bike riding, rollerblading or hiking. There must be something you’d enjoy!

**How active are we?**

How do the English measure-up to these recommendations? A recent survey of nearly 200,000 people was carried out to determine just how much exercise people were actually doing.

**Level of activity Percentage of population**

Inactive (less than 30 minutes per week) 25.6%

Fairly active (30-149 minutes per week) 13.7%

Very active (150 or more minutes per week) 60.7%

**How does your heart rate change?**

Some children wanted to find out how much their heart rate was affected by exercise. First, they measured their resting heart rate. Then they measured again after the warm-up (which was brisk walking whilst dribbling a basketball). Finally, they measured their heart rate straight after playing 10 minutes of fast-paced basketball. This is what they found:

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Resting heart rate (beats per minute) | Heat rate after warm -up  (beats per minute) | Heat rate after 10 minutes of basketball  (beats per minute) |
| Lillie | 95 | 98 | 102 |
| Mason | 89 | 97 | 138 |
| Harry | 77 | 84 | 96 |
| Sapna | 73 | 78 | 98 |
| Leroy | 82 | 100 | 122 |

They concluded that the effect of exercise is to make the heart beat faster. From their results, they also noticed that the more vigorous the exercise (a basketball match) the higher the heart rate. Because the heart is a muscle, this means that vigorous exercise should make the heart stronger as it is working harder.

So, how active are **you**? Why not keep an exercise diary and identify how you could become more active and healthier, both physically and mentally?

**\* aerobic exercise is physical activity of low to high intensity (sometimes known as ‘cardio’) which stimulates the use of the heart and lungs.**

Questions

1. List three physical benefits of exercise.

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Click or tap here to enter text.

Click or tap here to enter text.

2. In the first paragraph, find and copy the word which means ‘wide awake’.

Click or tap here to enter text.

3. What is the name of the chemicals which the body releases when we exercise?

Click or tap here to enter text.

4. How many types of exercise should children aged 5-18 do each week?

Click or tap here to enter text.

5. List two examples of exercise which are ‘moderately aerobic’.

Click or tap here to enter text.

Click or tap here to enter text.

6. In the paragraph ‘How much exercise is enough?’ find and copy a group of words which are written in an informal style.

Click or tap here to enter text.

7. Use the pie chart to identify the percentage of people who exercise for 150 minutes or more per week.

Click or tap here to enter text.

8. Which activity did the children do to investigate heart rates?

Click or tap here to enter text.

9. Which child had the highest heart rate before exercise?

Click or tap here to enter text.

10. Which child had the lowest heart rate before exercise?

Click or tap here to enter text.

11. What was the difference between Harry’s resting heart rate and his heart rate after playing basketball?

Click or tap here to enter text.

12. Using the information in the table, tick the statements below which are true.

Mason had the highest heart rate after playing basketball.

The pupils played basketball for 15 minutes.

The difference between Leroy’s heart rate after the warm-up and after playing basketball was 23.

13. What did the pupils find out from their investigation? Back up your answer with evidence from the text. (3 marks)

Click or tap here to enter text.