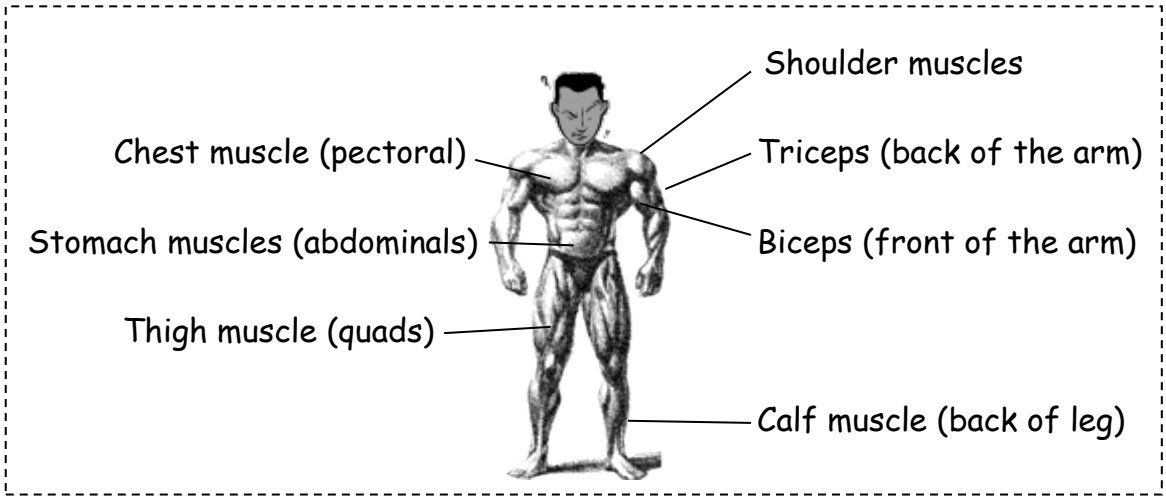
# Exercising – Which Muscles?

**PoS -** recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function
**NaG -** pupils should build on their learning from Years 3 and 4 about the main body parts and internal organs
**WS -** pupils should report and present findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations

- What does the word exercise mean?
- Describe three different ways that people exercise.
- Why do people exercise?
- What short-term changes can happen to your body when you take part in an exercise session?
- What long term changes can happen to your body if you take part in regular exercise sessions?
- What are muscles connected to and what do they move?

## Muscles and Movement

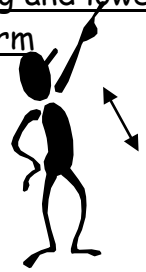
The diagram below shows some of the body's main muscles. These muscles help us to move. Cut and paste this diagram into your book.




## Investigation 1

Carry out the following exercises in the school hall or playground. Do each exercise for one minute. After each exercise spend two minutes recording your results.

Example

| Raising and lowering your left arm | Muscles used | Body changes |
|---|---|---|
|  | Shoulder muscles  | My shoulder muscles began to ache and felt a little tighter when I finished the exercise. |

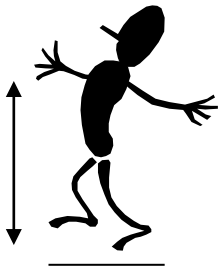
Your body changes may include some of the following:

aching muscles; tingling muscles; muscle tightening; sweating; deeper, faster breathing; increased heart and pulse rate; feeling more awake or alert.

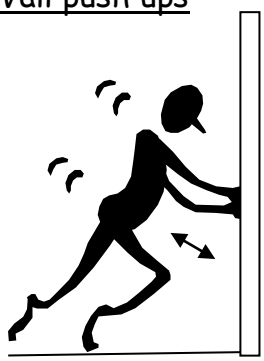
Exercise 1

| 10m shuttles | Muscles used | Body changes |
|---|---|---|
|  |  | |

Exercise 2

| Star jumps | Muscles used | Body changes |
|---|---|---|
|  |  | |

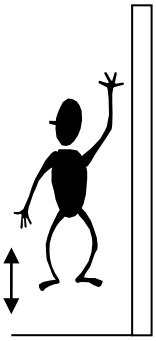
Exercise 3

| Wall push ups | Muscles used | Body changes |
|---|---|---|
|  |  | |

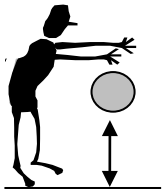
Exercise 4

| Step ups | Muscles used | Body changes |
|---|---|---|
|  |  | |

Exercise 5

| Wall jumps | Muscles used | Body changes |
|---|---|---|
|  |  | |

Exercise 6

| Basket ball bounce | Muscles used | Body changes |
|---|---|---|
|  |  | |

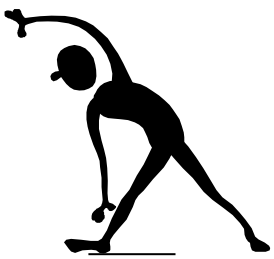
Exercise 7

| | Arm twirls | Muscles used | Body changes |
|---|---|---|---|
| |  |  | |

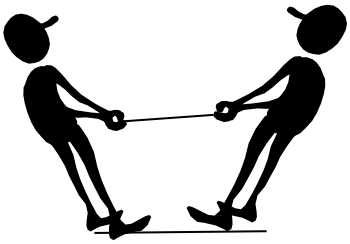
Exercise 8

| | Throwing and catching a ball | Muscles used | Body changes |
|---|---|---|---|
| |  |  | |

Exercise 9

| | Side stretches | Muscles used | Body changes |
|---|---|---|---|
| |  |  | |

Exercise 10

| | Tug-o-war | Muscles used | Body changes |
|---|---|---|---|
| |  |  | |

Glue flaps

Front Cover

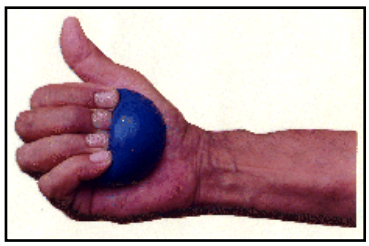
Name……

***Make an investigation booklet. Use the blank sheet to design an appropriate cover.***

## Follow up

1) What happens to your muscles when you exercise?
2) In which of the exercises that you completed did you have to use the most muscles?
3) Which exercise did you find the most tiring?
4) You carried out each exercise for one minute, what do you think would happen if you continued exercising?

## Investigation 2



1. Sponge ball squeeze

   Squeeze and release the sponge ball approximately once every second. Keep going for as long as you can.

   Explain why you had to stop.

2. Arms out

   Place your arms out at 90° to your body. Hold them there for as long as you can. Hold a class competition, once your arms drop below 90° you are out.

   Explain why you had to drop your arms.

3. Leg raise

   Lie on your back and raise your legs about 20cm off the ground. Hold a class competition to see who can keep their legs raised for the longest. You are out when your heels touch the ground or you bend your knees.

   Explain why you had to lower your legs.

4. Samson's Chair

   Stand upright then squat down and bend your knees until they form a 90°angle. You should look as though you are sitting in an invisible chair! Hold a class competition to see who can remain in this squat position for the longest. You are out when your knees lose their 90° angle.

## Conclusion

What do muscles use and 'burn up' when you are exercising?
What happens to your muscles if you make them work hard?
What happens to your muscles after you stop exercising?
What will happen to your muscles if you exercise regularly?
What will happen to your muscles if you never exercise?