

Let's Get Physical!

Worksheet

Learning outcomes

This activity will help you to:

By doing this activity, you'll learn about some aspects of how the body works, and why it is important to look after our bodies by doing regular exercise. Along the way, you'll learn about some jobs related to this.

Introduction

The heart is the most important organ in our bodies. It pumps blood through your body at all times.

[Watch this video](#) (1) to find out more about how your heart works.

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Activity 1

As we saw in the video, if you place two fingers on the side of your neck, you can feel your pulse.

- ★ How many times does your heart beat in a minute?
- ★ Think about how you are feeling just now, are you tired or bored?
- ★ Do four of the exercises listed below or choose some exercises of your own. Repeat these three times.
 - 20 jumping jacks
 - Running (on the spot or outside) for one minute
 - Running with high knees for one minute
 - 20 lunges (10 each leg)
- ★ Check your pulse again. What is the difference?

So why is your pulse faster after exercise?

This is because as you are working your body harder to exercise, your heart is working harder to pump blood through your body.

- ★ Write down how you are feeling now.
- ★ Do you feel more/less energetic?
- ★ Do you feel that you could do the exercise again?
- ★ Or do you feel like you could take a nap?

Your heart needs to be well looked after so that your body stays healthy. Sometimes a [doctor](#) (2) or [nurse](#) (3) will check your heart rate with a stethoscope to make sure your body is nice and healthy!

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Activity 2

Stretch those muscles!

1. Standing upright with your feet shoulder width apart, keep your legs straight and try to get as close to your toes as you can. Once you feel a little stretch in the backs of your legs, stop there and hold it for a few seconds.
2. Stand back up and try again. This time try to push your stretch a little further than before, but do not hurt yourself.
3. Lying on your back (use a towel or a mat if you are on a hard floor), lift one of your legs as high as you comfortably can, keeping it straight. Once the leg is at its highest, grab it with your hand and try to keep it there. Once the leg feels more comfortable, take a deep breath in. As you breathe out, try to pull the leg back just a little further. Depending on how flexible you are, at a certain point, you will feel a stretch down your leg. Make sure you stop there and try to hold it. **DO NOT PUSH THIS STRETCH TOO FAR!** Try to hold it for a few seconds and release the leg. Repeat on the other leg.

Why is stretching important?

Stretching helps keep your body moving with ease and makes sure that you don't hurt yourself in exercise or just doing everyday things. It can also help you to get better at some clubs you may go to like martial arts, football, dancing or gymnastics.

Sometimes athletes injure themselves if they haven't stretched properly before sports.

A fitness instructor (4) should always have people stretch and warm up before classes to make sure that this doesn't happen.

When someone has an injury like a sprained muscle, they would often see a **physiotherapist** (5) while they are recovering to help them build up their strength.

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Activity 3

Let's test your reflexes!

You need someone to help you with this one and you'll need a 30-inch ruler.

1. Ask your helper to hold the ruler at the very end (highest number).
2. Put your hand at the bottom of the ruler ready to catch it, but you should not be touching the ruler.
3. When the person lets go of the ruler, catch it as fast as you can and record the number on the ruler that your hand is at.
4. Use the table below to judge the timing based on the measurement. Try this three times and see if you can get better. Let your helper try too!

Distance	Time
2 in (~5 cm)	0.10 sec (100 ms)
4 in (~10 cm)	0.14 sec (140 ms)
6 in (~15 cm)	0.17 sec (170 ms)
8 in (~20 cm)	0.20 sec (200 ms)
10 in (~25.5 cm)	0.23 sec (230 ms)
12 in (~30.5 cm)	0.25 sec (250 ms)
17 in (~43 cm)	0.30 sec (300 ms)
24 in (~61 cm)	0.35 sec (350 ms)
31 in (~79 cm)	0.40 sec (400 ms)
39 in (~99 cm)	0.45 sec (450 ms)
48 in (~123 cm)	0.50 sec (500 ms)
69 in (~175 cm)	0.60 sec (600 ms)

What are reflexes?

Reflexes are involuntary movements as a reaction to something. You might have been to the [doctor](#), and had them tap your knee with the little hammer, which will make your leg kick. This is because the little tap sends a message through your spinal cord and to your brain, telling you that the muscle has contracted. The message then comes back down the spinal cord, telling your leg to kick. You don't even think about doing it!

We are born with most reflexes and we have them to protect ourselves. Think about if you touch something that is hot. You move your hand away without even thinking. Or if something is going to touch your eye and you close it. These are all things that our body does in order to protect itself!

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Why is it important that we exercise?

- It can help to keep our bodies and minds healthy, working all our muscles and organs and helping you get a good night's sleep
- Helps you to stay at a healthy weight
- Helps your body stay healthy as you age. Your age might be 100 one day, but your body doesn't have to be!
- There are lots of different kinds of exercise you can do too, as it's important to do something that you enjoy. For example, riding a bike, swimming, running, etc

Do you enjoy learning about the body and fitness?

Can you write down three things that you have learned by doing today's activity?

- 1.
- 2.
- 3.

Here are some other jobs related to today's activity. Why not look these up on [My World of Work](#) (6), [Ambulance Paramedic](#) (7), [Occupational Therapist](#) (8), [Sport and Exercise Scientist](#) (9), [Sports Therapist](#) (10)

Website references

1. How to Feel Your Heart Beat <https://bit.ly/2zSfYrQ>
2. Doctor <https://bit.ly/36rj6qR>
3. Nurse <https://bit.ly/3gGPk68>
4. Fitness Instructor <https://bit.ly/2AoyvvY>
5. Physiotherapist <https://bit.ly/36SRbA3>
6. My World of Work <https://myworldofwork.co.uk>
7. Ambulance Paramedic <https://bit.ly/2TTN5m0>
8. Occupational Therapist <https://bit.ly/2XkOwvL>
9. Sport and Exercise Scientist <https://bit.ly/2Zl4p6Y>
10. Sports Therapist <https://bit.ly/2yQeRbK>