



TEACHER WORKSHEET

CYCLE 2 • EXAMINE THE LIVING WORLD

LEARN ABOUT THE BODY THROUGH GYMNASTICS

OVERVIEW

EDUCATIONAL OBJECTIVES:

- Be more aware about one's body and learn about health recommendations.
- Learn about the body in motion (role of the skeleton and joints).

SPECIFIC SKILLS:

- **By learning about gymnastics, be able to:**
 - Problem-solve in terms of proportions.
 - Recognize healthy behaviors.

INTERDISCIPLINARY SKILLS:

- **Physical education:**
Show how muscles, tendons, and bones help the body move, and how physical activity benefits the body.
- **English:**
Understand how the language works: expand one's vocabulary, memorize and reuse newly learned words.

SCHEDULE FOR SESSIONS:

- Launch project.
- Gather initial student project feedback.
- Do individual activities, then share with class or work in groups.
- Review.
- Extend activity.

DURATION:

- **Session 1:** Introduction to the skeleton (40 min.).
- **Session 2:** The human skeleton (50 min.).
- **Session 3:** The body in motion: The role of the joints (55 min.).

ORGANIZATION:

- Class, group, and individual work.

→ OLYMPIC GAMES KEYWORDS:

RHYTHMIC GYMNASTICS • ARTISTIC GYMNASTICS • HEALTH • HEALTHY HABITS

CONCEPTS ADDRESSED

THE BODY: BONES, JOINTS, AND MUSCLES

First, students learn terms for the different parts of the body (head, neck, shoulders, stomach, back, arms, legs), and second, the different parts of the limbs (e.g., for the leg: thigh, shin, calf, foot, heel).

The skeleton is the bony framework of the human body. The skeleton is made up of 206 bones. Students will learn about the function of bones and the skeleton, and the names of certain bones (e.g., femur, patella, ribs, etc.).

FUN FACT!

The longest bone in the body is the femur and the smallest is the stapes, which is located... in the ear!



Students can then move on to the joints, learn what they are used for (i.e., the connection point between bones), identify the joints that bend and those that turn, and name them (elbow, wrist, finger joints, hip, knee, ankle, toe joints, etc.).

Finally, there may be a focus on muscles that allow movement, and how they work: contracting/relaxing, such as in the biceps.

GYMNASTICS: AN OLYMPIC SPORT

Gymnastics is one of the oldest Olympic sports. It has been part of the Olympic Games since ancient times.

Today, gymnastics is one of the most popular sports at the Olympic Games.

One can choose between rhythmic gymnastics, which is more dance-oriented, and artistic gymnastics, which focuses on acrobatics and performance.

ARTISTIC GYMNASTICS

The men's artistic gymnastics program at the Olympic Games includes the following:

- Floor exercises
- Vault
- Horizontal bar
- Parallel bars
- Pommel horse
- Rings

In women's artistic gymnastics, the program involves:

- Floor exercises
- Vault
- Uneven bars
- Beam

Artistic gymnastics is a sport that can be done individually or in teams. There are individual competitions where each gymnast competes against one another and gauges his or her own level.

There are also team competitions, where everyone does their best for the group.

FUN FACT!

Rhythmic gymnastics and synchronized swimming are women-only sports in the Olympic Games.

FUN FACT!

Nadia Comăneci (Romania) is the only gymnast to have been awarded a perfect score of 10 for her performance on the uneven bars at the 1976 Summer Olympics in Montreal, Canada.

FUN FACT!

At the Olympic Games, individual routines last about 1 minute and 30 seconds.



STUDENT WORKSHEET OVERVIEW

VOCABULARY:

IOC, gymnastics, skeleton, bone, joint.

ACTIVITIES:

► ACTIVITY 1: INTRODUCTION TO THE SKELETON

Gather student work and sort it out to reconstruct the human skeleton in a class diagram.

6-7 yr | 7-8 yr | 8-9 yr

Materials: – The picture of the gymnast.

– The student worksheet with the silhouette of the gymnast. 6-7 yr | 7-8 yr | 8-9 yr

– The student worksheet with the blank box. 6-7 yr | 7-8 yr | 8-9 yr

• Part 1

Ask students to draw the skeleton of the gymnast in the picture.

At this phase, have the children share their knowledge to use that as a basis and encourage them to think about what enables the gymnast, and their own body, to move.

– Students 6–7 years old have a worksheet with the silhouette of the gymnast.

– Students 7–9 years old have a blank space.

• Part 2

Share drawings with class. Display the drawings on the board. Lead a discussion with the students on the different options. Students make guesses about the human skeleton (number of bones, their location, shape, etc.). The teacher gathers those ideas, then confirms whether the guesses are correct at the end of the session.

Sample questions to lead the discussion:

– Can I touch my bones?

– Can I see certain joints?

Several answers may be given by students who may already be familiar with X-rays.

► ACTIVITY 2: THE HUMAN SKELETON

Match an X-ray image with a part of the skeleton, learn the names of the bones, build a skeleton.

6-7 yr | 7-8 yr | 8-9 yr

Materials: – At least one X-ray of an arm and an X-ray of a leg. Ask students who have X-rays at home to bring them to class. (Plan on having some available in case no one has any!)

– A photo of the gymnast Marine Brevet at the 2016 Olympic Games.

– A skeleton divided into separate pieces (like a puzzle) to be glued in place by students. Use the sample skeleton below, or any other drawing that can be cut out to make a puzzle.

• Part 1

In groups, ask the children which parts of the gymnast's body match the X-ray. One student per group brings the X-rays to the board and shows which parts of the photo appear in the X-rays.

• Part 2

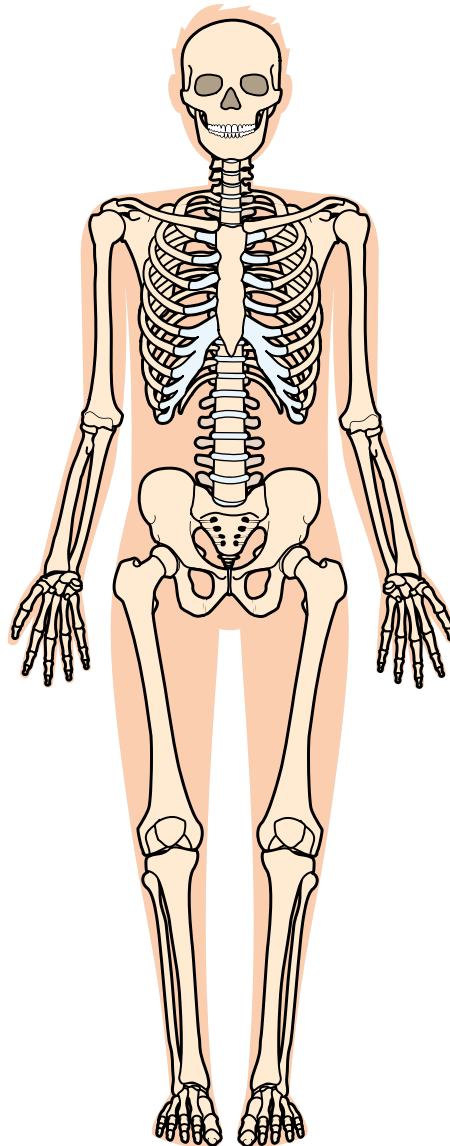
As a class, have the students sort the X-rays by body part (arms, legs, chest, head, etc.).



- Part 3

The teacher hands out the skeleton-puzzle pieces to students, who then try to put the different pieces together on their worksheet, based on work done at the board.

Photocopy template:





► **ACTIVITY 3: THE BODY IN MOTION: WHAT ROLE DO JOINTS PLAY?**

Understand the role of the joints and identify the elements that allow the body to move.

6-7 yr | 7-8 yr | 8-9 yr

Materials: – Student worksheet tables.

- Pictures of Olympic gymnasts
(available at: <https://www.olympic.org/photos/rio-2016/gymnastics-artistic>).
- A drawing of a skeleton.

Resources needed: – A cardboard tube.
– Scissors.
– Adhesive tape.
– Round-head fasteners.

• **Part 1**

Ask a student to come to the front of the class. Have the student put his or her arm through the cardboard tube, sliding it over the elbow.

1) The child in front of the class should try to respond to instructions given by other students (as specified on their worksheet), using gestures:

- Can you scratch your head?
- Can you put both hands on your head?
- Can you cross your arms?

2) Each child observes the classmate's reactions and fills in the table on the activity sheet.

• **Part 2**

As a class, locate other joints: students should mark an X where they think there is a joint on the skeleton in their worksheet. Students can check for themselves by moving around. The teacher confirms the correct answers and gives any missing answers.

• **Part 3**

List the joints in the table based on whether they pivot (i.e. allow movement in several directions: shoulder, wrist, hip, ankle) or bend as a hinge (i.e. allow movement in only two directions: elbow, knee).

• **Part 4**

Each student is given a picture of a gymnast and cuts it at the joints listed above. Then they connect the pieces using the round-head fasteners to make their Olympic champion move!



STUDENT WORKSHEET ANSWER KEY

► **ACTIVITY 1: INTRODUCTION TO THE SKELETON**

Gather student work and sort it out to reconstruct the human skeleton in a class diagram.

6-7 yr | 7-8 yr | 8-9 yr



STUDENT WORKSHEET ANSWER KEY

▶ ACTIVITY 2: THE HUMAN SKELETON

Match an X-ray image with a part of the skeleton, learn the names of the bones, build a skeleton.

6-7 yr | 7-8 yr | 8-9 yr

• Part 1

1)



Arm/elbow



Knee/leg

2)



• Part 2

In groups, sort based on X-rays brought in by students.

• Part 3

Check how students have put the skeleton back together.



► **ACTIVITY 3: THE BODY IN MOTION: WHAT ROLE DO JOINTS PLAY?**

Understand the role of the joints and identify the elements that allow the body to move.

6-7 yr 7-8 yr 8-9 yr

• Part 1

When your elbow is in a cardboard tube...		
You can scratch your head.		No.
You can put both hands on your head.		No.
You can cross your arms.	Yes.	

• Part 2



• Part 3

Joints that allow movement in two directions	Joints that allow movement in all directions
Elbow	Shoulder
Knee	Wrist
	Hip
	Ankle
	Neck



FIND OUT MORE

DIGITAL RESOURCES

Understand gymnastics at the Olympic Games:

<http://sport24.lefigaro.fr/jeux-olympiques/rio-2016/actualites/presentation-de-la-gymnastique-aux-jeux-olympiques-de-rio-2016>

Learn more about the Olympic Games and gymnastic disciplines:

<https://www.olympic.org/gymnastics-artistic>
<http://espritbleu.franceolympique.com/espritbleu/actus/3003-sports.html>

Find photos of gymnasts:

<https://www.olympic.org/photos/rio-2016/gymnastics-artistic>

FURTHER READING FOR STUDENTS

Elise fait de la gymnastique, by Pakita, Rageot Éditeur, "L'école d'Agathe" collection.

Gymnastics, by Joan Jackman, Dorling Kindersley Publishers.

Je fais de la gymnastique, by Véronique Bury, with photographs by Pierre Morel, Éditions Milan.

FURTHER READING FOR ALL AGES

The Little Communist Who Never Smiled, by Lola Lafon, Seven Stories Press.

ALL CNOSF CYCLE 2 EDUCATIONAL FILES:

PE: "Learn about water polo"

French: "Olympic Games vocabulary in French"

Mathematics: "Perimeters and tennis"

Language studies/vocabulary: "Olympic Games vocabulary"

Moral and civic education: "Rugby and the importance of rules"





STUDENT WORKSHEET

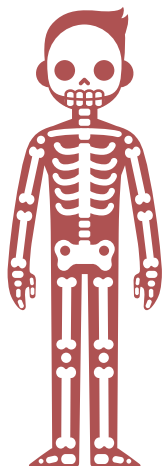
6-7 yr | 7-8 yr | 8-9 yr

CYCLE 2 • EXAMINE THE LIVING WORLD

LEARN ABOUT THE BODY THROUGH GYMNASTICS

Aa

VOCABULARY



INTERNATIONAL OLYMPIC COMMITTEE (IOC): An institution that promotes Olympism around the world and leads the Olympic Movement. The IOC chooses the host city for the Summer and Winter Olympic Games.

GYMNASTICS: An activity that is both a sport and an art. The Olympic Games include different forms of gymnastics, such as rhythmic and artistic gymnastics.

SKELETON: All of the bones that make up the human body or vertebrate animals. The adult human skeleton is made up of 206 bones. Babies are born with about 300 bones. The skeleton supports the body.

BONE: A piece of hard tissue that makes up the skeleton. Bones are connected at the joints.

JOINT: The point where two bones are joined together. The bones can move because of the muscles. That's what allows us to move.



TIPS & TRICKS



Despite the saying, **curiosity didn't kill the cat!** Curiosity is a quality that will push you to understand how the world works. **The more curious you are, the more you learn,** and the more comfortable you are with speaking and giving your opinion... To spark your curiosity, you can go to the library, see an exhibition, or watch a sports competition. You can also just walk around your home town, observe, and ask questions... **You can learn anytime, anywhere!**



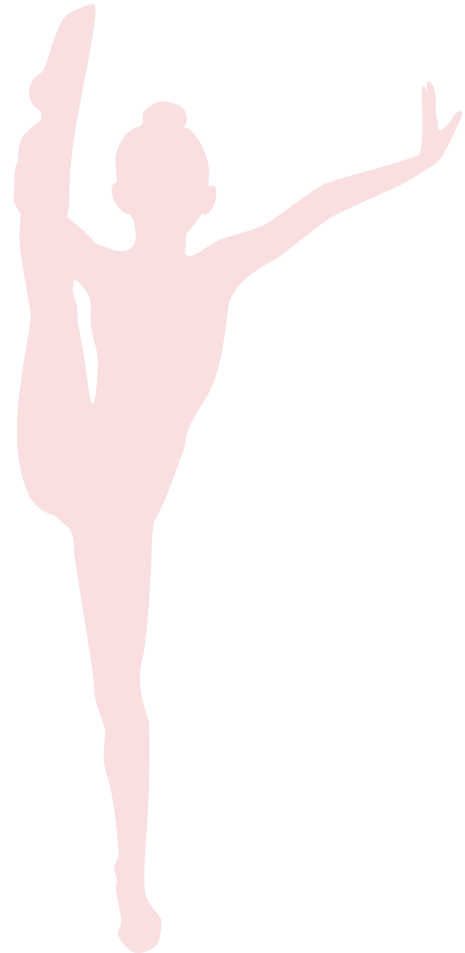
ACTIVITIES

► ACTIVITY 1: LEARN ABOUT THE SKELETON

Draw the skeleton of the gymnast in the picture.



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© Katarinka81 / Adobe Stock

► FIND OUT MORE:

Gymnastics has been part of the Olympic Games since 1896, when the modern Olympic Games were created. In the beginning, the Olympics only involved artistic gymnastics, and only men competed. It was not until the 1928 Summer Olympics that women were allowed to compete in gymnastics.



REVIEW

- There are 206 bones in the human skeleton, which supports the body.
- Bones can be divided into six groups: the skull, spine, legs, arms, rib cage, and pelvis.
- Bones are connected by joints, which allow us to move (the neck, shoulders, elbows, knees, ankles, hips, etc.).
- Some joints can move in two directions (elbows, knees, etc.). Others allow movement in all directions (ankles, wrists, etc.).



NOW, TAKE ACTION!

- **Eat a balanced diet to grow strong and be healthy.** To do that, eat a bit from each food group in the right proportions. For example, eat three to four dairy products (milk, yogurt, cheese, etc.) per day to strengthen the bones.
The calcium in dairy products keeps bones strong and helps them grow.
- **Do a physical activity to be in shape and help the bones develop properly.**
Remember to warm up before exercising and stretch when the activity is over to prevent soreness.



STUDENT WORKSHEET

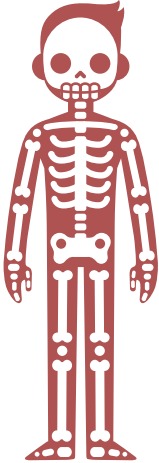
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JOINT: The point where two bones are joined together. The bones can move because of the muscles. That's what allows us to move.



TIPS & TRICKS



Working in a group helps you to communicate, share ideas, and reflect. For example, in a research project, everyone should participate—some read to find information, others do research (conducting surveys or experiments). In class, here are some rules to follow when working in small groups:

- Use inside voices to let other students work.
- Listen to other students' ideas, and discuss those ideas together.
- Don't argue—if you disagree, learn how to manage conflict by accepting that the other person thinks differently.



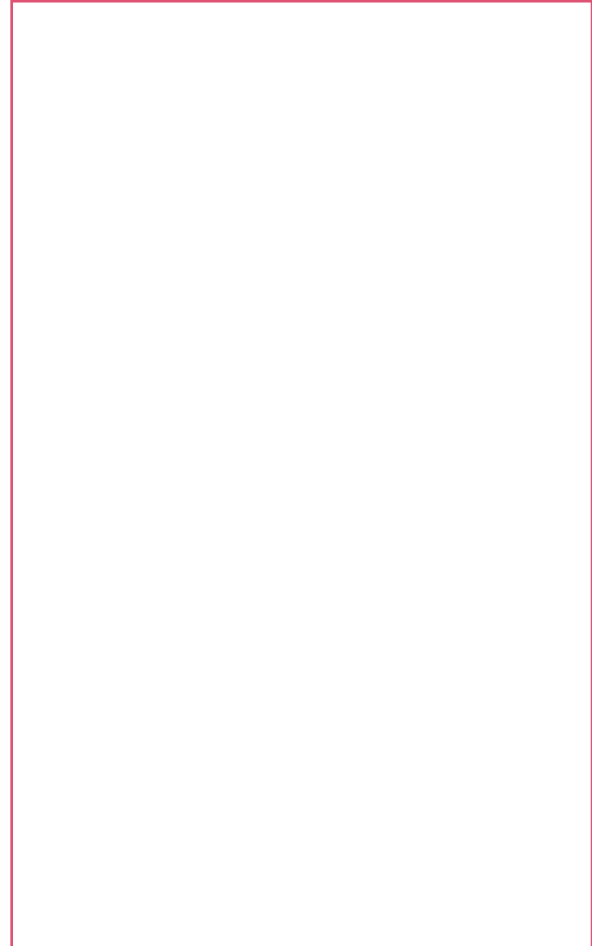
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What we've learned:

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.....

.....

▶ FIND OUT MORE:

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► ACTIVITY 2: THE HUMAN SKELETON

MATERIALS:

- An X-ray of an arm and an X-ray a leg.
- A photo of the gymnast Marine Brevet at the 2016 Olympic Games.
- A skeleton divided into separate pieces (like a puzzle) to be glued in place.

Part 1

Answer the following questions with your group.

1) What parts of the gymnast's body are shown in the X-rays?



2) Locate the body parts identified in the X-rays in the photo of Marine Brevet, an athlete at the Olympic Games in Rio in 2016. Choose one student from your group to bring the X-rays to the board. He or she will have to show which parts of the photo appear in the X-rays.





▶ FIND OUT MORE:

- Artistic gymnastics is performed on different equipment, called an “apparatus”. There are eight types of apparatus in all: rings, pommel horse, horizontal bar, uneven bars, parallel bars, beam, vault, and floor. Female gymnasts use four (the uneven bars, beam, vault, and floor), while male gymnasts use six (the rings, pommel horse, horizontal bar, parallel bars, vault, and floor). On all types of apparatus, gymnasts perform maneuvers.
- Rhythmic gymnastics was introduced to the Olympic Games in 1984. Rhythmic gymnastics is a women-only sport. Gymnasts perform to music within a time limit (about 1 minute and 30 seconds). They have to perform floor routines, jumps, and acrobatic moves. They use one of the following five apparatuses: clubs, ball, hoop, ribbon, and rope.

Part 2

Sort out the X-rays you have; group together arms, legs, etc.

Part 3

Below, put the gymnast’s skeleton back together like a puzzle by gluing together the different pieces your teacher has handed out to you.



► **ACTIVITY 3: THE BODY IN MOTION: WHAT ROLE DO JOINTS PLAY?**

MATERIALS:

- Two tables to be completed.
- A photo of an Olympic gymnast.
- A drawing of a skeleton.

Part 1

One of your classmates goes to the board and puts his or her arm through a cardboard tube, sliding it over his or her elbow.

- 1) Take turns giving him or her the following instructions:
 - Can you scratch your head?
 - Can you put both hands on your head?
 - Can you cross your arms?
- 2) Observe his or her reactions and fill in the table, answering “yes” or “no”.

When your elbow is in a cardboard tube...		
You can scratch your head.		
You can put both hands on your head.		
You can cross your arms.		

Part 2

Mark an X on the image below where you think there are joints.

If you need to, you can move around to check yourself.
But be careful not to bump into a classmate!





Part 3

Use the table to list the joints according to type.

Joints that allow movement in two directions	Joints that allow movement in all directions

Part 4

Take the picture of the gymnast and cut it at the joints we have located. Use the round-head fasteners handed out by your teacher to put the pieces back together and make your Olympic champion move!



REVIEW

- There are 206 bones in the human skeleton, which supports the body.
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INFOGRAPHIC WORKSHEET

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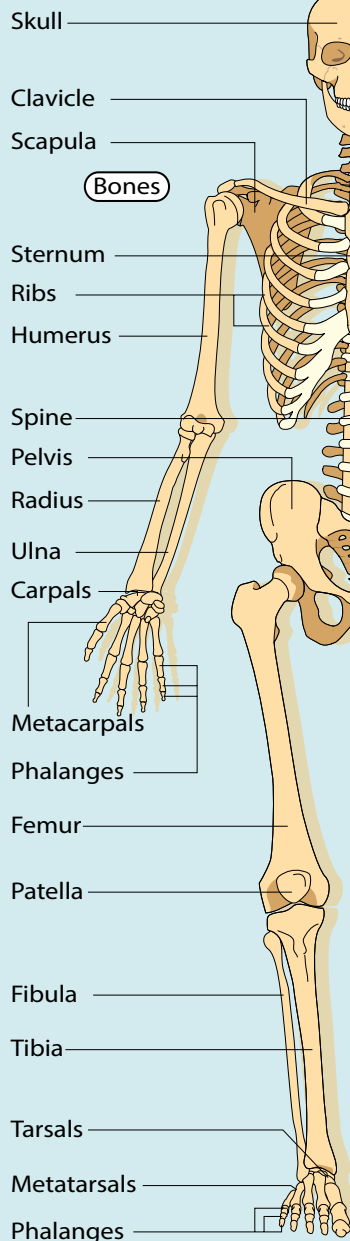
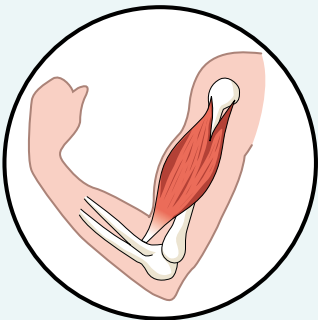
The skeleton

206 bones

Our skeleton is made up of 206 bones. They support and protect the organs. For example, the curved bones that make up the skull protect the brain. The skeleton supports the body.

Movement

The bones meet at the joints. The muscles move the bones. When muscles contract, they pull the bones and the rest of the body. That's what allows us to move.



Tendons

Muscles are connected to bones by tendons. Tendons are tapered parts of the muscles.

Muscles

Wrists, hands, ankles, and feet

Almost half of the body's bones are in the wrists, hands, ankles, and feet. The largest bone is the femur, or thigh bone.

The smallest is the stapes, which is in the ear.





IT'S YOUR TURN!

CYCLE 2 • EXAMINE THE LIVING WORLD

LEARN ABOUT THE BODY THROUGH GYMNASTICS

PUT YOUR KNOWLEDGE TO THE TEST

1 ANSWER "TRUE" OR "FALSE":

Rhythmic gymnastics is a men's sport.	
The body is made up of 206 bones.	
Joints are not essential for movement.	

2 WHAT YEAR WAS THE WOMEN'S OLYMPIC GYMNASTICS COMPETITION FIRST HELD?

- 1900 1928 1936

3 HOW MANY PIECES OF EQUIPMENT ARE USED IN RHYTHMIC GYMNASTICS?

- 3 4 5

4 HOW LONG SHOULD A RHYTHMIC GYMNASTICS ROUTINE BE?

- 1 min. 30 sec. 2 min. 30 sec. 3 min. 30 sec.

TEST YOUR KNOWLEDGE FURTHER

1 WHO WON THE RIO 2016 OLYMPIC GAMES IN ARTISTIC GYMNASTICS?

- Simone Biles Sanne Wevers Giulia Steingruber

2 WHAT IS A GYMNAST'S OUTFIT CALLED?

- A bodysuit A playsuit A leotard

3 WHAT IS A PERFECT SCORE IN GYMNASTICS?

- 5 10 20



IT'S YOUR TURN! ANSWER KEY

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LEARN ABOUT THE BODY THROUGH GYMNASTICS

PUT YOUR KNOWLEDGE TO THE TEST

1 ANSWER "TRUE" OR "FALSE":

Rhythmic gymnastics is a men's sport.	False.
The body is made up of 206 bones.	True.
Joints are not essential for movement.	False.

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