

Adaptive Athletes

A Reading A-Z Level Z1 Leveled Book
Word Count: 1,910

Connections

Writing

Research a sport that is included in both the Paralympics and Olympics. Write a paragraph comparing and contrasting how athletes in both compete.

Social Studies

Using a world map, indicate the locations of the Olympics and Paralympics since 1980. Label the map with each city and year.

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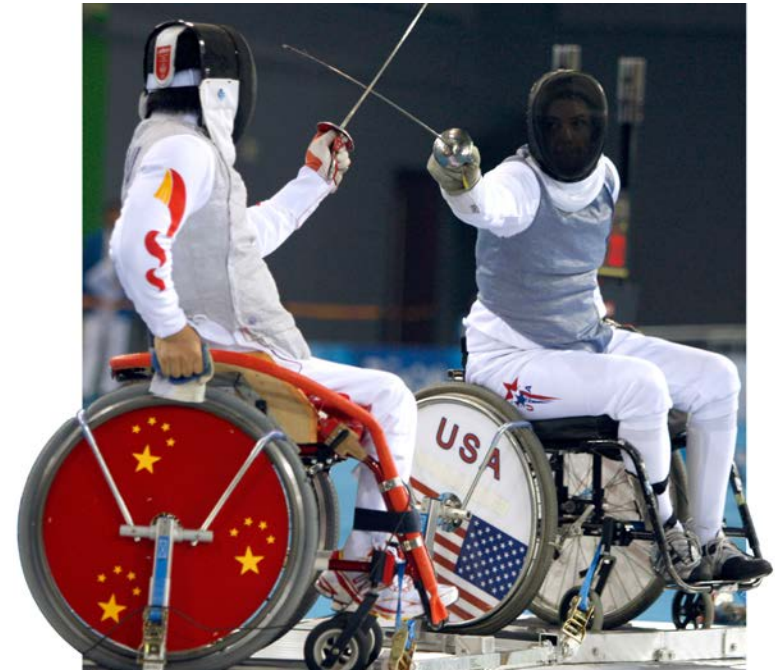


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Glossary

ability (<i>n.</i>)	a skill or talent; the power to do something (p. 4)
adaptive (<i>adj.</i>)	able to change to fit a new or specific situation or environment (p. 5)
amputated (<i>v.</i>)	cut off; severed (p. 12)
competitive (<i>adj.</i>)	of or relating to a rivalry between individuals, teams, or businesses (p. 11)
disability (<i>n.</i>)	a physical or mental condition that limits a person's ability to do something (p. 4)
mobility (<i>n.</i>)	the ability to move from place to place (p. 5)
paralyzed (<i>adj.</i>)	made unable to move in one or more parts of the body (p. 11)
paraplegia (<i>n.</i>)	a condition caused by illness or injury in which the lower half of the body, including both legs, is left paralyzed (p. 18)
prestigious (<i>adj.</i>)	having honor, respect, or high standing (p. 6)
rehabilitate (<i>v.</i>)	to restore to health or normal activity (p. 6)
striving (<i>v.</i>)	making a serious effort to achieve something (p. 19)
venues (<i>n.</i>)	places where organized events are held (p. 10)

ADAPTIVE ATHLETES



Written by David Dreier

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Focus Question

In what ways are adaptive athletes great competitors?

Words to Know

ability	paralyzed
adaptive	paraplegia
amputated	prestigious
competitive	rehabilitate
disability	striving
mobility	venues

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Front cover: Basketball teams from Brazil and Australia face off at the 2008 Paralympic Games in Beijing, China.

Title page: China's Hu Daoliang (left) fences with the United States' Scott Rodgers during a match at the 2008 Paralympic Games.

Table of contents: The logo design of the 2012 Paralympic Games in London (main); One of the special coins designed to honor all the sports to be contested in the 2012 Olympics and Paralympics in London (inset).

Adaptive Athletes
Level Z1 Leveled Book
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Correlation

LEVEL Z1	
Fountas & Pinnell	W-X
Reading Recovery	N/A
DRA	60

Achieving Excellence

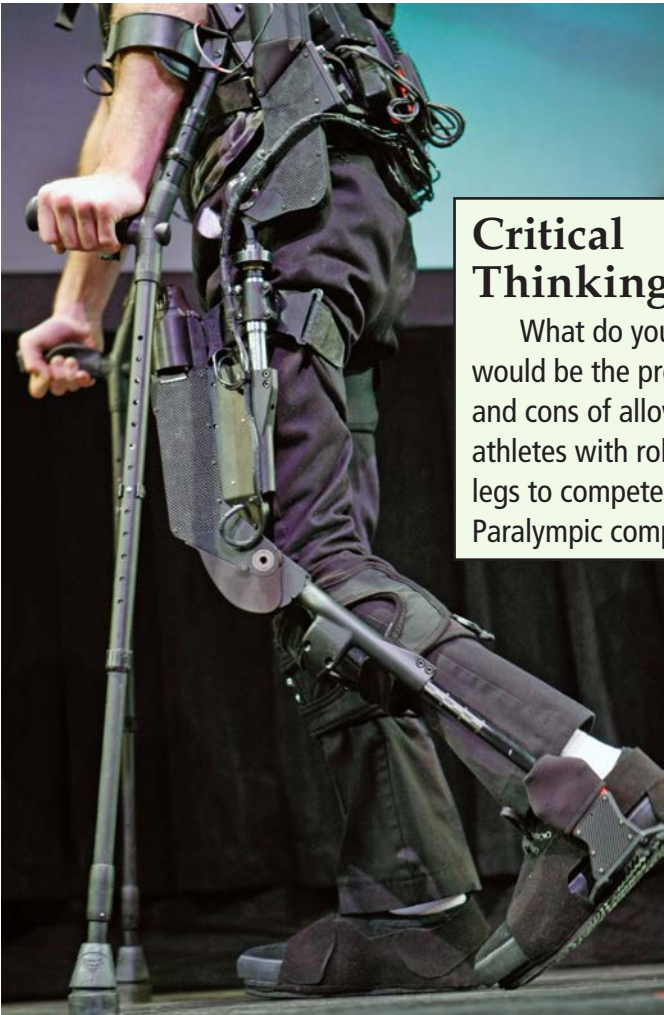
From its humble beginnings in 1948, the Paralympics have grown to match the Olympics in scale. The Paralympic Games, just like the Olympic Games, offer an inspiring look at the human spirit. The games showcase top athletes **striving** to achieve excellence in sports.

Paralympic athletes are great examples of competitors who have been made able by their abilities rather than being hampered by their disabilities. Those abilities will shine at the Paralympic Games for years to come.



The British tandem cycling pair of Aileen McGlynn (left) and sighted pilot Ellen Hunter pedaled for gold at the 2008 Paralympics in Beijing.

Some exoskeletons are designed for the lower part of the body. These robotic legs are designed to make it possible for people with **paraplegia** to walk. Perhaps robotic legs will someday be a common sight at the Paralympics.



Critical Thinking

What do you think would be the pros and cons of allowing athletes with robotic legs to compete in future Paralympic competitions?

This lower-body exoskeleton, named eLEGS, is a bionic device that helps people with paraplegia stand and walk.



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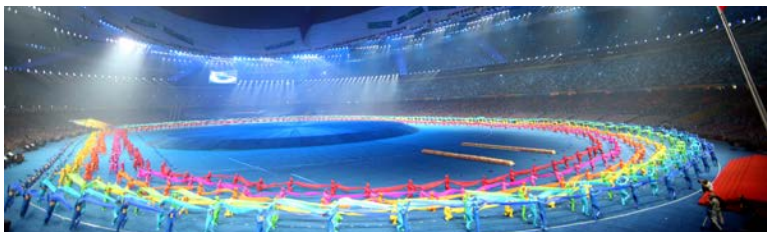
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Young dancers perform for the crowd during the Opening Ceremony of the 2008 Paralympic Games in Beijing, China.

Introduction

People have always admired athletes, especially those special few who excel at their sport. We admire natural talent as well as the **ability** to compete and win under pressure, but even gifted athletes must sharpen their skills with practice. The best athletes typically spend years developing the ability to run faster, swim farther, or throw a ball more accurately—always trying to be the best.

Athletic skill comes in many different forms. Swimmers, runners, weight lifters, and cyclists are all athletes.

Many athletes who have a physical or mental **disability** are top competitors, too. For years, rules kept disabled athletes from Olympic competition. Today, the Paralympic Games bring them to center stage!

Since 1960, athletes with physical disabilities have competed in the Paralympic Games, or

Exoskeletons

A device called an “exoskeleton” could help improve mobility for many people with disabilities and could someday play a part in the Paralympics.

An exoskeleton is a powered metal framework that fits around all or part of the body. It is powered by a small engine or a battery pack.



Full-body exoskeletons enable the wearer to carry heavy loads while running or climbing. Exoskeletons have other possible uses as well, such as allowing rescue workers to lift heavy debris in their search for victims.

The exoskeleton, nicknamed “Ekso,” at its public debut in London in October 2011. Originally developed for military use, the Ekso will now help people with spinal injuries to walk again.

Guides are also used in another Paralympic sport—five-on-a-side soccer. Each team is allowed one guide, who stands on the sidelines and shouts instructions to the players. Just as in goalball, the ball is equipped with a noisemaking device so the players can hear where it is.

Swimming events use people called “tappers,” who stand at the ends of the pool holding a long pole. They use the pole to tap the swimmers as they approach the wall. All swimmers must wear blackened goggles so that partially sighted swimmers do not have an advantage over swimmers who are completely blind.



Australia's (yellow/green) Kieran Modra and his pilot, Tyson Lawrence (front), broke the world record and won the gold medal in the Men's Individual Pursuit event of the 2008 Paralympic Games.

Paralympics. These competitors are known as **adaptive** athletes. Some adaptive athletes are missing arms or legs, while others use wheelchairs for **mobility**. Some have limited vision or complete blindness. All these elite athletes have shown that with drive and hard training, almost any physical limitation can be overcome.

The 2012 Paralympics, held in London, put the talents of outstanding adaptive athletes in the spotlight for all the world to see.

History of the Paralympics

The idea of the Olympic Games came from ancient Greece, where athletic contests were held every four years. The games were stopped by a ruling Roman emperor in AD 393, but more than



Dr. Ludwig Guttman addresses the competitors at the Opening Ceremony of the 1964 games in Tokyo, Japan.

1,500 years later the Olympics were officially brought back. Two hundred forty-one athletes from fourteen countries met in Athens, Greece, to compete in forty-three events.

The first Paralympics began about fifty years later. The games grew

out of a program in Great Britain to **rehabilitate** World War II combat veterans who had spinal injuries. The program was the idea of a British neurologist, Sir Ludwig Guttmann.

Guttmann's goal was to turn his games into a **prestigious** competition like the Olympics, and that is exactly what happened. Nations around the world joined the Paralympic movement.

The first official Paralympic Games were held in 1960 in Rome, Italy, just after the Rome Summer Olympics.

The 1960 games included about four hundred athletes from twenty-three nations who competed in eight events, including archery, fencing, swimming, and basketball.



Athletes from the United States and Israel compete in wheel-chair basketball at the 1960 games held in Rome, Italy.

The Paralympic movement grew from there. Summer and Winter Paralympic Games have since been held every four years, usually in the same city as the Olympics.

In 1989, the International Paralympic Committee (IPC) was founded in Germany.



Japan's Akiko Adachi saves the ball during a women's goalball match against Sweden at the 2008 Paralympic Games.



Octavio dos Santos (1036) of Angola and his sighted guide finish the men's T11 200-meter race at the 2008 Paralympics.

information, clapping, and electronic signals guide them. Whenever such sounds are being used in an event, the spectators are required to be absolutely silent.

Runners also have guide runners who run in a lane next to them. The two runners are usually connected by a strap, or tether, fastened loosely around their wrists. In track events longer than 400 meters, a runner can have two alternating guides. In addition to receiving cues from the tether, runners may be aided by verbal information from their guide runner.

In cycling events, visually impaired athletes use a two-seat bicycle with a pilot in the front seat. The athlete pedals the bike and the pilot guides it.

Amy’s success inspired her to help others like herself. In 2005, she cofounded an organization called Adaptive Action Sports. The organization introduces people with physical challenges to sports like snowboarding. Amy worked hard to have adaptive snowboarding included in the Winter Paralympics.

In 2014, Amy’s hard work paid off. Adaptive snowboarding was added as a Paralympic event in Sochi, Russia. Amy not only won the battle to include snowboarding in the Paralympics, but she also won a bronze medal competing at those games.

Blind Athletes

Athletes who are partially sighted or blind participate in a number of Paralympic sports.

The top sport for these Paralympians is goalball. It is the only sport in the Paralympics that is just for athletes with limited eyesight.

Each goalball team consists of three players. They stay within fixed boundaries and try to throw a large rubber ball into the opposing team’s goal. Jangling bells inside the ball let the players know where it is. All competitors must wear blackout masks so they cannot see at all.

Sound is also used for track and field athletes who are blind or partially sighted. Spoken

The Events	
Athletes at the London Paralympic Games competed in 503 events in 21 sports.	
Archery	Rowing
Athletics	Sailing
Boccia (lawn bowling)	Shooting
Cycling – Road	Swimming
Cycling – Track	Table Tennis
Equestrian	Sitting Volleyball
Soccer, 5-on-a-side	Wheelchair Basketball
Soccer, 7-on-a-side	Wheelchair Fencing
Goalball	Wheelchair Rugby
Judo	Wheelchair Tennis
Powerlifting	

Its job is to oversee the Paralympic movement and organize the games. Its mission is “to enable Paralympic athletes to achieve sporting excellence and inspire and excite the world.”

In 2001, the IPC made an agreement with the International Olympic Committee (IOC). The two organizations ruled that the city hosting the Olympics would also host the Paralympics. This had already been done with six Paralympics, but the agreement now made it a requirement.

The Paralympics originally had six participation categories: amputee, cerebral palsy, intellectual disability, wheelchair, visual

impairment, and *les autres*. The term *les autres* is French for “the others.” This category included athletes with disabilities that do not fall into the other five groups. Today, there are ten categories covering a range of physical, visual, and intellectual impairments.



Trischa Zorn

A number of Paralympic athletes have distinguished themselves. Trischa Zorn, a blind American swimmer, is the most decorated Paralympian in history. From 1980

to 2004, she won 55 medals, 41 of them gold. The most decorated athlete in the Winter Games is polio survivor Ragnhild Myklebust of Norway. In cross-country races, relays, the biathlon, and ice sledge racing from 1988 through 2002, she won 27 medals, 22 of them gold.

The 2012 Summer Olympics and Paralympics in London

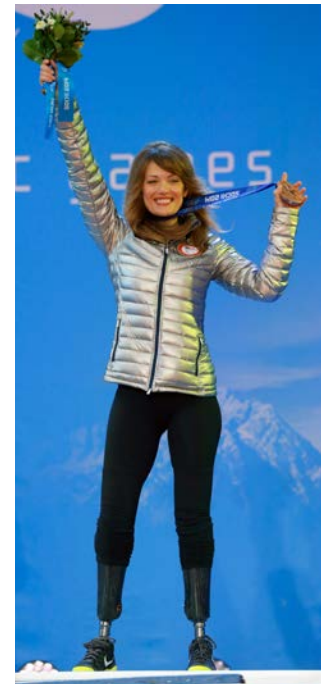
More than 4,000 athletes from at least 150 countries participated in the 2012 London Paralympic Games. Athletes competed in 503 events in 21 sports.

One athlete who had an especially difficult adjustment is Amy Purdy.

Amy began snowboarding when she was 15 years old. When she was 19, she became ill. Her symptoms suggested a case of the flu. What Amy really had was a deadly infection that spread quickly throughout her body. Amy’s organs failed and the circulation to her legs stopped. Doctors had to amputate both of her legs below the knee.

While recovering, Amy set her mind to making the most of her abilities. Just seven months after receiving prosthetic legs, Amy began snowboarding again.

More than anything, Amy wanted to excel in her sport, but her prosthetic legs and feet made it hard for her to snowboard. That didn’t stop her, however. The determined double-amputee decided to build her own. Within a year, she was winning medals at major national snowboarding competitions.



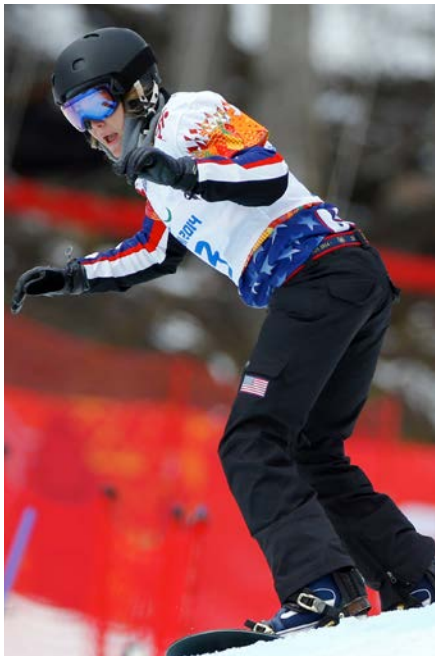
Amy Purdy celebrates on the medal stand at the 2014 Winter Paralympics in Sochi.

world championship events. He also won a gold medal at the 2008 Beijing Paralympics. After a disappointing fourth-place finish in London, Aggar won the World Cup in 2013.

NATALIE DU TOIT of South Africa began swimming competitively at age 14. When she was 17, her left leg was **amputated** at the knee after she was hit by a car. She resumed swimming three months later. She competed at the 2004 Athens and 2008 Beijing Paralympics, winning 11 medals, 10 of them gold. Du Toit is the first amputee to compete in the regular Olympics. At the Beijing games, she finished 16th in the women's 16-km race. Du Toit won one silver and three gold medals at the London Paralympics and is now retired.

Amy Purdy

Some Paralympians have been disabled for most of their lives. Others, like Tom Aggar and Natalie du Toit, have had to adapt to changes in their abilities later in life.



Amy Purdy

Bringing the Olympics and Paralympics to London was quite a competition in itself. In a lengthy bidding process, nine rival cities were reduced to five finalists: London, Madrid, Moscow, New York, and Paris. In July 2005, the IOC conducted four ballots to decide the winner. London received the most votes in the final ballot, with Paris coming in second. The games were going to London! This was the third Olympics for London but its first time hosting the Paralympics.

Londoners celebrated when they learned of their city's victory, but their joy faded when they learned about the cost of the games. The estimated total cost of constructing the sites and conducting the games was about 9.3 billion British pounds, or about 14 billion U.S. dollars.



Olympic Park, site of the 2012 Olympics and Paralympics in London: the Velodrome, Basketball Arena, and Athlete's Village (upper left), Aquatics Centre (top left), Olympic Stadium (top right), Handball Court (center right), and the Riverbank Arena (lower right).

The Olympic and Paralympic Games used the same **venues**, or facilities, in East London. The heart of both games was the new eighty-thousand-seat Olympic Stadium, located within an area called Olympic Park. The stadium was the setting for track and field events. Other new facilities in the Olympic Park included an aquatics center, a basketball arena, and a water polo arena.

The 2.5-square-kilometer (almost 1 sq. mi.) Olympic Park was once an industrial area with contaminated soil. It was transformed into a green setting for many of the Olympic and Paralympic events as part of a program to improve a run-down section of East London.

At the Top of Their Game

Many inspiring stories can be told about the athletes who participated in the 2012 London Paralympics. Here are four of them:



Esther Vergeer



David Weir

ESTHER VERGEER of the Netherlands became **paralyzed** below the waist at the age of eight. She was the world's top-ranked wheelchair tennis player from 1999 to 2013. Vergeer was unbeaten for 10 years. She had an impressive winning streak of 470 matches.

Wheelchair racer DAVID WEIR is one of Great Britain's leading Paralympic athletes. Born with a disability, he needed metal braces on his legs to walk but later switched to a wheelchair. Weir soon got into wheelchair racing. He competed in the 2004 and 2008 Paralympics (in Athens and Beijing) and won six medals, two of them gold. At the London Paralympics, Weir won four gold medals.

In 2005, TOM AGGAR of Great Britain had a spinal injury that left both legs paralyzed. As part of his therapy, Aggar took up **competitive** rowing. He won gold medals in 2007, 2009, 2010, and 2011



Tom Aggar



Natalie du Toit