## **BACK TO EARTH WITH A BUMP!**

#### Reported by Amanda Kelper, Media Correspondent, London

Last week, British astronaut Tim Peake returned home from an incredible six month stay aboard the International Space Station (ISS), alongside his crewmates Yuri Malenchenko and Timothy Kopra. He is the first British astronaut to have lived on the ISS.

The men were launched into space on 15th December 2015 and in the months before take-off, they trained intensively for their trip. The mission involved conducting experiments, testing out new technology and inspiring the next generation of space travellers. Peake told reporters that the highlight of his mission was a spacewalk where he had to make a repair on the space station. Whilst away from home, Tim also ran the equivalent of the London Marathon on his treadmill.

Having circled the planet nearly 3,000 times in 186 days, the crew returned home to Earth via a Soyuz capsule, which reached speeds of up to 28,000 kilometres per hour (25 times the speed of sound). The touchdown was bumpy due to high winds, however the astronauts landed safely in Kazakhstan. They all returned in good health. Having arrived back on solid ground, the astronauts were pulled out of the capsule and carried as their leg muscles were too weak to walk. Whilst sitting in their space suits, the men were checked over by medical staff. During these checks, Peake was asked how it felt to be home, 'The smells of Earth are so strong and it's wonderful to be back in the fresh air.'

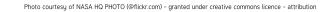
Tim later flew from Kazakhstan to the headquarters of the European Stage Agency in Cologne, Germany where he is recovering and adjusting to life back on Earth. Scientists are carrying out tests to see how his body has been affected by his time in space.



Landing with a bump! Tim Peake lands safely in Kazakhstan.

In a recent press conference, Peake commented on how he'd missed family and friends, and even the rain. Tim expressed how much he was now looking forward to spending some quality time with his family. When asked if he'd return to space in the future, he replied, '…in a heartbeat.'

His service to science has earned him an honour from the Queen. Peake was made a CMG, or companion of the order of St Michael and St George. In response, Tim said, 'I am only one privileged person in a complex team of technicians, scientists, engineers, educators, trainers and flight directors, all working in pursuit of one of the greatest scientific and technical challenges of our time – exploring our solar system for the benefit of people on Earth. This award is for them.'





### **Comprehension Questions**

Answer questions in full sentences.

- 1. How long had Peake been living on the ISS?
- 2. Write down **two** jobs Tim had to do on the mission.

3. Why were the astronauts carried out of the capsule?

4. What did Peake notice once he'd left the capsule?

5. What was hard about being on the ISS for so long?

6. Why do you think Tim dedicated his special honour to the entire team?



7. Give **two** reasons why space travel is important.

8. Why has a picture and caption been added to the report?



### Back To Earth With A Bump! Answers

- How long had Peake been living on the ISS?
   Tim Peake had been living on the ISS for six months.
- Write down two jobs Tim had to do on the mission.
   Any two of; he conducted experiments, tested out new technology and did necessary repairs on the ISS.
- Why were the astronauts carried out of the capsule?
   They were carried as their leg muscles were too weak to walk.
- 4. What did Peake notice once he'd left the capsule?He noticed the smells of Earth and the fresh air.
- 5. What was hard about being on the ISS for so long?Tim said that being away from his family and friends for such a long time wasn't easy.
- 6. Why do you think Tim dedicated his special honour to the entire team?Own answers, which may include reference to his space travel mission being a team effort.
- 7. Give a reason why space travel is important.

Own answer, which may include to make new discoveries, to find out if there's life in other parts of the Solar System, to conduct important experiments in space, etc.

8. Why has a picture and caption been added to the report?It has been added to make the report more eye-catching and interesting to the reader.



### All about...

# **Rainforest Deforestation**

Rainforests are an essential part of our planet, providing oxygen, absorbing carbon dioxide and housing 50% of the animal and plant species of the planet. Not to mention, the medicines and cures that are made using plants only found in a rainforest environment.

### Deforestation

Deforestation is the name given to the destruction of the rainforests and this is being done by burning them, chopping down the trees, or in some cases, flooding the areas. This is happening so fast that an area the size of twenty football pitches is being destroyed every minute! If the current rate of deforestation continues, it will take less than a hundred years to destroy all the rainforests on Earth.



#### Fact File in Numbers

- 20% of the world's oxygen is produced in the Amazon forest.
- 28,000 species of animals are expected to become extinct in the next 25 years due to deforestation.
- $\frac{1}{2}$  of the tropical rainforests that we had have already gone.

### Why are they being destroyed?

The biggest reason rainforests are cleared is to make space for food, including cattle to be farmed for cheap beef and also growing large crops, such as soya beans and palm oil. In addition, other causes of deforestation, which are also related to making money include; chopping down and using the wood from the forest, building roads for mining metals, gold or diamonds, flooding areas to make dams to generate electricity and also digging for oil.

### How can they be saved?

There are plenty of charities fighting against deforestation and people can always help by raising money for those charities. Also, think about the reasons that the forests are being destroyed and how some little changes in your everyday habits could help. For example, the cheap beef farmed in the areas that used to be rainforest land is often used in fast food chains. Could you avoid eating fast food from these outlets? You could also check on your supermarket food labels for the country of origin of any meat you buy. Was it farmed in an area where deforestation is taking place? You could also use rainforest-friendly wood so you know it is not a by-product of deforestation. Finally remember, paper comes from trees so any paper saving you can do, as well as recycling, will help the environment.



### **Questions about Rainforest Deforestation**

1. Name a reason not to destroy rainforests given in the first paragraph.

2. Name two of the three ways given that a rainforest can be destroyed.

3. What percentage of the rainforests has already gone?

4. In the fact file, what does the author say will happen in the next quarter of a century?

5. Why does saving paper help the rainforests?

6. Why has the author used an exclamation mark in paragraph two?

7. What **fraction** of the earth's plant and animal species live in the rainforests?

8. List two main reasons why deforestation is occurring.

9. Which rainforest produces 20% of the world's oxygen?

**10.** What is your opinion about deforestation? How could you help to stop it?



### **Questions about Rainforest Deforestation**

### Answers

1. Name a reason not to destroy rainforests given in the first paragraph.

Any from: medicines, cure for cancer, 50% of animal and plant species live there, gives out oxygen, absorbs carbon dioxide.

2. Name two of the three ways given that a rainforest can be destroyed.

Any from: burning, chopping down, flooding.

- What percentage of the rainforests has already gone?
   50% (it says 1/2 in the text).
- 4. In the fact file, what does the author say will happen in the next quarter of a century?(28,000) species of animals will become extinct (the text says twenty-five years).
- 5. Why does saving paper help the rainforests?

Paper is made from wood (making it also causes more carbon footprint).

6. Why has the author used an exclamation mark in paragraph two?

The rate of destruction is surprising (discuss this).

- What fraction of the earth's plant and animal species live in the rainforests?
   1/2 (the text says 50%).
- 8. List two main reasons why deforestation is occurring.

Any two from: Food: Cheap beef, or agricultural crops including soya or palm oil, using the wood, building roads for mining, generating electricity or digging for oil.

9. Which rainforest produces 20% of the world's oxygen?

The Amazon Rainforest.

10. What is your opinion about deforestation? How could you help to stop it?

Open ended for discussion. Answers could discuss raising money for charities, making different choices about food and conserving paper.



# **Rio Olympics 2016**

The Olympic Games 2016 will take place in Rio de Janeiro, Brazil. It is the first time the Olympic Games have been held in South America. The Games will run for nineteen days from the 5th – 21st August 2016.

### Facts about Brazil

- It is the largest country in South America.
- The official language is Portuguese.
- The country shares a border with all the South American countries, except Chile and Ecuador.
- The Amazon River flows through Brazil.
- Football is the country's most popular sport and Brazil have won the men's World Cup five times!

### Celebrations

Many Festas, or festivals, occur throughout the year to celebrate different events. The most famous Brazilian carnival is called 'Carnaval do Brasil' where people celebrate for days through the busy streets of Brazil's main cities. It is also known for beautiful beaches, huge rainforests and wide range of animals.

### The History of Medals

In Ancient Greece, Olympic winners were awarded a crown of laurel leaves that were allegedly picked from the sacred grove near the god Zeus' temple. In the 1904 St.Louis Games, gold, silver and bronze medals were awarded for the first time and pinned to the athletes' chests.

Finally, in the 1960 Rome Games, medals were hung around the competitors' necks on ribbon, a tradition that still happens in today's games.

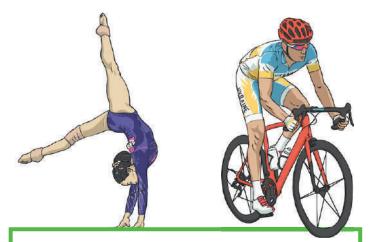
### The Olympic Torch

The Olympic torch represents peace, unity and friendship. During the run-up to the Opening Ceremony of the Games, the torch is passed from one bearer to another during a relay. The design of the Rio 2016 torch symbolizes Brazil's main characteristics; its harmonious diversity, its contagious energy and its exuberant nature.



### **The Events**

There are many different types of sport at the Olympics. Some of the sporting events include: athletics, handball, basketball, rhythmic gymnastics, boxing, volleyball, mountain bike cycling and wrestling.



### Did you know?

At the Rio Games 2016 there will be:

- 42 different sports;
- 306 events;
- a total of 2,102 medals given out;
- more than 200 nations taking part.

### Volunteers

During the games, there will be more than 140,000 volunteers helping to make sure everything runs smoothly. Everyone (from health professionals to torch bearers) is trained by 120 instructors ready for the event. They learn about excellent service, leadership and details about the different sports.

### Training

Weeks before the Olympics are due to start, the athletes all have to start to train in Brazil. This is called acclimatisation and it is very important so that the competitors are used to the Brazilian weather, heat and general environment.

The Olympics are held every 4 years. The next host country for the Games will Tokyo in Japan.

## **Questions about Rio Olympics 2016**

Answer the questions below in full sentences.

1. How many days does the Olympic Games last?

2. Name two things Brazil is known for.

3. Which sport is the country most famous for?

4. When were the first medals awarded?

5. Which of the 'Did you know?' facts surprise you the most and why?

6. Name two things that the torch represents.

7. What does 'diversity' mean?

8. Which sport would you most like to see and why?

9. Why do the volunteers need training?

10. What might be a problem if athletes do not have the chance to train in the country they will be competing in?

# **Questions about Rio Olympics 2016**

### Answers

- How many days does the Olympic Games last?
   19 days
- Name two things Brazil is known for.
   Accept TWO of the following; festivals, Carnaval, beaches, rainforests or a range of animals.
- Which sport is the country most famous for?
   Football
- When were the first medals awarded?
   1904
- Which of the 'Did you know?' facts surprise you the most and why?
   Pupil's own response.
- 6. Name two things that the torch represents.

### Accept TWO of the following; peace, unity or friendship.

- 7. What does 'diversity' mean?A wide range of people and culture.
- Which sport would you most like to see and why?
   Pupil's own response.
- 9. Why do the volunteers need training?

### So that they know what equipment to get, what the rules of games are and how/ where to lead groups of people.

10. What might be a problem if athletes do not have the chance to train in the country they will be competing in?

They might get ill if they are not used to training in such a hot country, or the conditions may affect their performance.

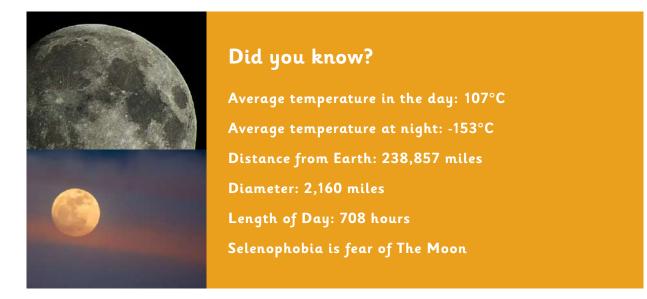


## The Moon

Do you ever look up in the sky at night and see the Moon shining down and lighting up the night-time town? Do you sometimes wonder what it would be like to visit the Moon or wonder why it shines so bright? Well here's some information that might interest you...

#### Moon and Sun:

The Moon shines very brightly, but is only reflecting the light of the Sun it can't make its own light. When the Sun comes back up for our day time we think that the Moon goes away but it doesn't, it's just harder to see because it is so bright. Sometimes, if you look carefully, you can see the Moon in the sky during the day time.



#### Orbit:

The Moon is the Earth's only satellite (that means something that orbits a larger object). It takes the Moon about 28 days to orbit the Earth once, we call this a lunar month. During this time we only ever see the same side of the Moon as it rotates slowly whilst it moves around us.

During its orbit the Moon is sometimes covered by a shadow of the Earth, this is what gives us the phases of the moon, when it is waxing (growing bigger) and waning (getting smaller) with shapes including crescent and gibbous.

#### Moonwalking:

Only 12 people have ever walked on the Moon! The first person to do this was Neil Armstrong on 20th July 1969. There were two other men on the mission: Buzz Aldrin and Michael Collins and they all travelled on the Apollo 11 shuttle.

You may have seen a film of people walking on the Moon and it isn't quite the same as walking on the Earth...walking on the Moon looks bouncy because the Moon's gravity is not as strong as the Earth's, so people take longer to fall back down when they are up in the air.

Photo courtesy of (shahbasharat, Aurel\_\_\_@flickr.com) - granted under creative commons licence - attribution



# **Questions About The Moon**

1. How many people were on the first moon landing mission?

2. How does the moon look like it lights up when it doesn't?

3. What is a satellite?

4. How much colder is the Moon at night than in the daytime?

5. What causes the shadow on the Moon?

6. Why is the Moon colder than Earth at night?

7. Where does the Moon go in the daytime?

8. How long does it take the Moon to orbit the Earth?



9. How far did Neil Armstrong travel to get to the Moon?

10. Work out how long it would take a car travelling at 70mph to get to the Moon.

a: In hours

b: In days



# **Questions About The Moon**

### Answers

1. How many people were on the first moon landing mission?

### Three

2. How does the moon look like it lights up when it doesn't?

### It reflects the Sun's light/rays

3. What is a satellite?

### Something that orbits a larger object

4. How much colder is the Moon at night than in the daytime?

### 260°C (107 + 153)

5. What causes the shadow on the Moon?

### The Earth (casts a shadow as it gets in the way of the Sun's rays).

6. Why is the moon colder than the Earth at night?

### It is further away from the Sun at night.

7. Where does the Moon go in the daytime?

### Nowhere – it stays in the daytime sky

8. How long does it take the Moon to orbit the Earth?

### About 28 days / 4 weeks / 27.3 days / 29-30 days (The range is because it depends also on the position of The Earth)

9. How far did Neil Armstrong travel to get to the Moon?

### 238,857 miles

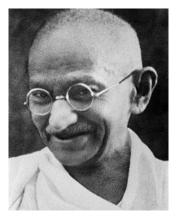
10. Work out how long it would take a car travelling at 70mph to get to the Moon.

```
a. In hours
3412 hours (238857 ÷ 70)
b. In days
142 days (341 2÷ 24)
```



## Mahatma Gandhi

Mohandras Karamchand Gandhi was born on 2nd October 1869. He was born in Porbander, Gujarat, North West India. His father was the Chief Minister of Porbander and his mother was very religious. She worshipped the God Vishnu, but also believed Jain teachings, which taught people about not causing injury to living things. Gandhi had a good education.



### The Young Man

He began studying at a college in the University of Bombay although Gandhi was not very happy at college, so when he was offered the chance to study law in London, he took it. He worked hard and began to study all religions. Until this time, he had never really been interested in religion. When he returned to India, he found it hard to find work, so eventually took a job in South Africa for a year.

Gandhi was upset at the way people that were not white were treated. Once, Gandhi was removed from a train even though he had a valid ticket because he was not white. Another time, he was asked to take off his turban in court. He refused and left the courtroom. Situations like this were part of apartheid.



### Did you know?

Apartheid is an Afrikaans word that means "status of being apart". In real life terms, it meant that white people were treated a lot better than black or Asian people. There were even shops that "non-whites" weren't allowed to go in!

### Gandhi and the People

Gandhi knew he needed to do something about the unfairness of apartheid. He believed in non-violent political protests. A protest is when someone stands up against something they do not agree with and brings attention to it so that others might get involved. This



Photo courtesy of (Raymond June@flickr.com) - granted under creative commons licence - attribution



meant that he would encourage protesting in a peaceful, safe way. He did not want people to get hurt, he just wanted the authorities to take notice of what life was like for people who were not white.

He returned to India and was horrified to find how badly treated the Indian people of Bihar were, by the white British masters. He began to encourage people to stand up for themselves and their rights in peaceful protests and strikes. The people were grateful somebody was trying to help them and he became known as Mahatma – Great Soul.

### Famous Gandhi

Gandhi's fame began to spread. Indian people saw him as their voice for freedom and fairness. He started a boycott of buying British goods. This meant he encouraged people not to buy British goods. This led to his first arrest, and on 2nd March 1922, he was put into prison for two years. Gandhi went on many hunger strikes to bring attention to the unfair treatment of people at the hands of the British. When he was released, he began to try to end the British rule over Indian people.

The British began to realise that a lot of people agreed with Gandhi and they were worried there could be a war, so they agreed to make some changes and improve the lives of some of the poorer people.

Gandhi was arrested a number of times because he encouraged people to stand up to the government. Some people also tried to kill him. One man in particular tried and eventually succeeded: Nathuram Godse.

Gandhi died on his way to a prayer meeting on 30th January 1948. He was shot three times in the chest.







Photo courtesy of (Zeusandhera, emilong@flickr.com) - granted under creative commons licence - attribution



## Mahatma Gandhi Questions

- 1. What area of India was Gandhi born?
- 2. Describe which two events made Gandhi realise that he was being treated differently in South Africa.
- 3. What do you think it was like for non-white people living in South Africa?
- 4. What sort of protests did Gandhi believe in?
- 5. Why did the people call Gandhi 'Mahatma'?
- 6. What were the British masters afraid of? Explain your reasons.

7. What changed as a result of Gandhi's protests?

8. Who killed Gandhi?



### Mahatma Gandhi **Answers**

1. What area of India was Gandhi born?

Gandhi was born in the Gujarat area of North West India.

2. Describe which two events made Gandhi realise that he was being treated differently in

South Africa.

Once, Gandhi was removed from a train because he was not white. Another time, he was asked to take off his turban in court. He refused and left the courtroom.

3. What do you think it was like for non-white people living in South Africa?

Accept reasonable answers e.g. I think it would have been very hard for non-white people living in South Africa because they were not allowed to go in some shops. This was because they were not white and they were kept apart from white people.

- What sort of protests did Gandhi believe in?
   Gandhi believed in non- violent political protests.
- 5. Why did the people call Gandhi 'Mahatma'?

Accept similar answers: The people called Gandhi 'Mahatma' because he encouraged people to stand up for themselves and their rights, and they were grateful that he was trying to help them / They saw him as a voice for freedom and fairness.

6. What were the British masters afraid of? Explain your reasons.

Accept similar answers: The British masters were afraid that there could be a war because Gandhi was becoming famous and there were so many people who agreed with him.

7. What changed as a result of Gandhi's protests?

The British masters made some changes improving the lives of some of the poorer people.

8. Who killed Gandhi?
 Nathuram Godse killed Gandhi.

