

Meet the Rubbish Warrior

Reading

★ Read the article. For questions 1-6, choose the correct answer A, B, C or D.

- 1 How did Michael Reynolds get the name the 'Rubbish Warrior'?
 - A from his use of recycling
 - B due to the large amount of recycling he does every day
 - C from being the first to recycle
 - D because he recycles almost every type of rubbish
- 2 'Earthships'
 - A do not cost anything to run.
 - B recycle their own water.
 - C don't consume energy.
 - D can generate their own electricity.
- 3 What problem did Michael encounter when he started building earthships?
 - A He couldn't find materials.
 - B Other architects interfered with his work.
 - C His designs did not comply with building regulations.
 - D Nobody wanted his work.
- 4 What finally helped Michael's work become accepted?
 - A changes in building regulations
 - B the architectural community
 - C rebuilding after disasters
 - D building homes in New Mexico
- 5 Michaels believes 'biotecture'
 - A is the answer to all environmental problems.
 - B will solve some important environmental issues.
 - C will spread around the world.
 - D will solve our energy shortages.
- 6 Michael feels 'biotects'
 - A create new ecosystems.
 - B shouldn't use natural resources.
 - C should fight consumerism.
 - D create a new lifestyle.

He has been called the 'The King of Rubbish', 'The Rubbish Architect' and most recently the 'The Rubbish Warrior'. Michael Reynolds doesn't just collect rubbish and recycle it; he turns it into sustainable green homes known as 'earthships'. These eco-friendly houses are made from natural and recycled materials. Anything from old tyres, glass, plastic bottles and tins to old electrical appliances and cars are used as building materials. The homes are self-sufficient with solar panels and wind turbines to generate electricity. They also have rainwater collection systems and a constant inside temperature that allows residents to grow a small vegetable and fruit garden indoors. All these design factors contribute to the total independence of the home by using natural resources. By providing their own power and water, operation costs of these earthships are low with little to no utility bills. Building materials are also inexpensive, making these homes affordable for everyone.

Trained as an architect, Michael responded to concerns back in the 1970s about the ever increasing rubbish problem and environmental crisis by building sustainable homes out of the rubbish. 'Thirty five years ago I saw dark clouds on the horizon ... Lots of people also saw the environmental crisis coming but weren't inspired to do anything. They thought I was a fool going to the dump and recycling rubbish before recycling even existed.' Michael says, looking back. Well, no one is laughing at him anymore. After years of being snubbed by the architectural community and battling outdated building laws, Michael's work is now being taken very seriously. He started with building homes for himself and like-minded people in New Mexico. The owners appreciated the homes and understood their importance but publicly they were still seen as radicals. The value of Michael's work came into the spotlight when he and his team were invited to the tsunami hit area of the Bay of Bengal in 2004. Michael and his team passed on their knowledge to the desperate people there while at the same time building several critical shelters with the tons of rubbish left behind from the disaster. This provided Michael with the opportunity to experiment and create some of his most inspired designs while not being restricted by building regulations. The homes are earthquake and hurricane proof and built to collect rainwater. Michael and his crew have visited other disaster areas to help rebuild communities including areas hit by hurricane Katrina and more recently the earthquake in Haiti in 2010. As word catches on, his designs have spread to every corner of the globe. Michael has even created a name for his type of work, 'biotecture' to describe the designing of buildings with the goal of sustainability. According to Michael it's a sort of 'combination of biology and architecture' that addresses a number of serious problems now facing mankind. When rubbish becomes the building material, less waste goes to over-burdened landfill sites.

Shortages of water and energy are eased when households create their own supply. Michael calls himself and others working like him 'biotects' and sees their creations not just as homes but as an alternative way of living. "Earthships are a model of the future that goes beyond house and architecture," he explains. Residents become an active part of their local ecosystem, living hand in hand with nature and not just consuming it. It's a sustainable way of living that this warrior will continue to fight for.



Vocabulary

- 1 ★ Fill in: *grazed, diseases, threat, harmful, released.*

- 1 pesticides sprayed on vegetables can have a really bad effect on our health.
- 2 Improved cleanliness helps to prevent the spread of
- 3 The fire at the factory poisonous gases into the atmosphere.
- 4 Sea pollution is a terrible to sea creatures such as whales and dolphins.
- 5 Several sheep on the long grass in the field.



- 2 ★ Fill in: *for, to, under, out, down.*

- 1 The Arctic glaciers are threat from global warming.
- 2 If deforestation continues, thousands of animal species will die
- 3 Forests are home many animal and plant species.
- 4 We are all responsible protecting the environment.
- 5 Loggers cut trees and destroy animal habitats.

- 3 ★ Fill in: *on, out, in (x2), over.*

- 1 Hang, Peter. I'll be ready in a few minutes.
- 2 The thief demanded that the man hand his wallet.
- 3 I have to hand my science project by 3 pm today.
- 4 Bill is handing festival flyers to passers-by.
- 5 They have just started an environmental club at school. Why don't we join

Listening

- 4 ★ You'll hear people talking in eight different situations. For questions 1-8, choose the correct answer A, B or C.

- 1 You hear a woman talking about volunteering at a community centre. What does she do at the centre now?
 - A spends time with the elderly
 - B helps with art classes for children
 - C teaches computer skills to the disabled
- 2 You hear a man talking on the radio about a festival. What can festival-goers do in the afternoon?
 - A listen to bands
 - B play in the annual football matches
 - C see exhibits on environmental issues
- 3 You hear a woman talking about a charity ski race. How did she feel at the end of the race?
 - A thrilled
 - B disappointed
 - C proud
- 4 You hear a filmmaker being interviewed on the radio. Why did he make the film?
 - A to raise money for a charity
 - B to inform people about a problem
 - C to make money for his film school
- 5 You hear a man talking. What is he?
 - A disabled
 - B homeless
 - C elderly
- 6 You hear a woman talking to her friend. Why is she talking to him?
 - A to offer him help
 - B to give him a warning
 - C to convince him about something
- 7 You hear a lecture about illiteracy. What is the lecturer describing?
 - A a solution to the problem
 - B the causes of the problem
 - C the impact of the problem
- 8 You hear a teenager talking about an animal shelter. How does she feel about the shelter?
 - A It needs more money.
 - B It needs more volunteers.
 - C It doesn't help many animals.

Reading Task

Read the text. For each question choose the correct answer A, B, C or D.

Into the Great White North

As the group of five adventurers watched their small plane fly away, a sudden wave of panic spread through them. They realised they were all alone and the only way out of the massive valley where they stood was to launch their canoes and paddle down the Kongakut River 209 km to the Arctic Ocean. A plane was scheduled to pick them up there two weeks later. Despite being very experienced trekkers, the team was unsure of what to expect as such a journey had never been completed before.

This adventure-hungry team are volunteers for an organisation known as Across the Atlas which organises extreme adventure expeditions that raise money through sponsorships and donations. The money raised is then given to non-profit organisations and causes. The challenge this time was to trek, ski and canoe across one of the most remote places on Earth: the upper Kongakut Valley in northern Alaska. The team's goal was to support efforts to protect wildlife and conservation of this unique area of the world. Proceeds raised by the team would go to the Colorado Cancer Foundation. The first task of the trip was to climb the Alaskan Continental Divide which runs from the base of the Kongakut River to the Arctic Ocean. Unfortunately, due to global warming, there was little snow, so the team was unable to ski the surrounding mountains as planned and had to settle only on hiking the divide. The hike turned out to be a strenuous task, involving crossing raging rivers and climbing steep mountainous terrain. After a gruelling day covering 4,500 feet, the team reached the top to enjoy stunning views of the surrounding valleys. They encountered hundreds of fearless caribou that appeared to have never seen humans before.

With the continental divide conquered, the team assembled their inflatable canoes for the journey downriver. To their amazement, the river was extremely shallow in many sections so the team had to push and drag their fully-loaded boats downstream. The first couple of days the team managed to travel only 3-5 kilometres per day instead of the estimated 24 km per day. This was very discouraging and tiring for the team. Fortunately, the river finally deepened and narrowed allowing the canoes to pick up speed. The canoes eventually encountered some challenging rapids which were the most difficult the adventurers had ever experienced. The team was thrilled to see ancient glaciers on the river and at one point paddled through one to find themselves surrounded by blue ice.

Finally, the river met the Arctic Ocean and the team built shelters on the beach and watched in the distance as waves crashed against drifting icebergs. The next day they set off in their canoes to meet their plane at the landing strip. Along the way, they saw a polar bear. The bear began to follow them for some distance, but eventually gave up. At the landing strip they set up camp to enjoy one final evening in the Arctic wilderness before meeting the plane the next day. As they sat around the campsite for the last time, the five adventurers knew how the first explorers must have felt after discovering a new land!

- 1 Upon arrival at the Valley the team
A didn't know which direction to go.
B felt concerned about the task ahead.
C realised the plane had left without them.
D lacked experience for such a trip.
- 2 The Across the Atlas organisation
A hired the adventure team.
B is an tourist travel agency.
C is a wildlife conservation group.
D donates money to various charities.
- 3 The team didn't ski on the trip
A because the climb took the entire day.
B due to hundreds of caribou.
C due to the lack of snow.
D due to very steep mountains.
- 4 While canoeing, the team was surprised
A by the depth of the river.
B at the difficulty of the river rapids.
C by the glaciers floating on the river.
D at how far the ocean was.
- 5 When the team arrived at the Ocean,
A they encountered a polar bear.
B they camped on the beach.
C they paddled to the landing strip.
D they waited for the plane.

