

# Making a difference

The world of whales and dolphins is very interesting. In fact, an organisation in Scotland works with them all the time. They don't only watch these creatures, though. They also do research, and they work with humans, too. They organise educational programmes, and they work with the local communities.

## What does HWDT do?



### 1. Research

In this part of the Atlantic Ocean, there are 24 different kinds of whales, porpoises and dolphins (cetaceans). The members of HWDT record where they are, and what they are doing. They do research to understand more about them, and to detect any problems. Is there enough food? Is the water polluted? The scientists also want to see how the cetaceans can co-exist with humans.

This is serious scientific work, and groups of volunteers of all ages help the scientists. Visitors to the HWDT office can use an Observations Sheet to record anything that they see.

This Observations Sheet has descriptions of eight common types of cetaceans. The observers fill in the sheet. They record where they are (e.g. on a boat, on land) and what they can see (description and behaviour of the animal). They also note the number and type (adults or young ones), and the state of the sea and weather.

So hundreds of "ordinary" people can take part in environmental observation and research. It's fun – and it's also important research!

#### WORD FILE

<b>cetacean</b>	The family of whales, dolphins and porpoises.
<b>co-exist (v)</b>	To live in the same place.
<b>ferryboat</b>	A boat between two (or more) places.
<b>volunteer</b>	A person who works for no money.
<b>behavior</b> <b>organize</b>	<b>behaviour</b> <b>organise</b>

### 2. Educational projects

The HWDT scientists have a sailing boat, the "Silurian". For ten days every month, they use this boat for research. But for the rest of the month, the boat becomes a "floating classroom". The Education team visit the schools on all the islands, and primary and secondary students come on board. In this way, they learn about the sea environment in a practical way. Science, maths, computer studies and geography all become *real*!

#### SCHOOLS

The team also do lessons in the schools on land. They want to introduce the students to different kinds of cetaceans. How can they do this? They can't take a live animal into the classroom – but they *can* take a life-size model!

Minke whales are the most common kind here. They are about nine metres long. When the students see the model in their classroom, those measurements become real! They can compare the length of the whale with their own height.

Whales are mammals. How do they breathe? The students can touch the two blowholes and understand this. They can also see how they eat. Do they have teeth?

Well, what *does* this huge animal eat? Plankton! What's that? Very, very small plants and animals. A big minke whale eats a lot of plankton every day. So if the water is polluted and there's no plankton, the whale starves. It has to move to a new part of the ocean.

## HWDT – The Hebridean Whale and Dolphin Trust



#### PROJECTS

The students do projects, too. For example, they read the computer data and compare results from two different years. They analyse the differences, and suggest reasons. This is *real* science!

They also experiment with dolphin communication. They often do an activity in pairs. They close their eyes, and try to find their partner, using special sounds (clicks and whistles) just like dolphins and whales. It's very dark under the sea, so communicating through sound is really important. (See page 7 for more about this.)

In this way, the students connect the environment with maths, science and IT.

#### WORD FILE

<b>analyse (v)</b>	To study something in detail.
<b>blowhole</b>	A hole in a whale or dolphin's head; it breathes through this.
<b>enthusiastic</b>	Very interested in something.
<b>IT</b>	Information technology.
<b>life-size</b>	The same size as the real thing.
<b>model</b>	A copy of something.
<b>screen</b>	The "window" of a computer.
<b>species</b>	A family of animals.
<b>starve (v)</b>	To have no food so that you can die.

**analyze**  
**math**  
**meter**  
**ocean**

**analyse**  
**maths**  
**metre**  
**sea**

#### OPEN DOOR

The HWDT office in Tobermory is a great place to visit. There are photographs, fact-sheets and computers. For example, every species of whale or dolphin makes a different sound. You can click onto a screen, and listen to these sounds. Most important of all, there are enthusiastic people to talk to!



What other school subjects can you link with the environment?  
Can you think of any songs, or music, or literature connections?

