David Stewart : a Carolside parent working as a scientist.

Mr. Stewart has studied science at university and has a degree including chemistry and information technology. He now works as a chemist.

He has worked for Scottish Water making sure that the water you drink is safe. Chemistry is used to make sure that your drinking water is free from such things as bacteria and other pollution.

He has worked for a drug company finding out how much medicine people should take and how often they should take it. Scientists do this by testing blood samples from people who have taken the medicine to find out how long the medicine stays in the body.

He has worked for a company that keeps water safe in factories. Water is needed for life and life has a habit of finding water and using it. Some of the things that can grow in factory water systems are dangerous and must be destroyed.

Now he is a member of a team on an oil rig in the North Sea. The team’s job is to make sure that the machines are working properly and the sea is kept clean. Oil comes out of the ground mixed with water and other things. These must be separated and only clean water must be put into the sea. A series of processes are used to separate the oil and water and the crew of the rig need to keep checking that all the machines are working properly, even when the computers are telling them that all is normal. He once had to find out why the water coming out of the rig was pink! His theory to explain this observation was that bacteria had grown in a part of the oil well that had not been used for a long time and tests showed that he was right. The machine could only separate water from oil and would not work properly with a mixture of oil, water and bacteria. After cleaning out the machine, testing showed that the water that was being released to the sea clean again.

Mr. Stewart says that communications between team members and the people in the control room are very important and that he and his team always listen very hard to each other and make sure that they speak clearly and politely. He says that scientists have to use a problem solving approach, should be able to decide what to do and should be confident to try it.