GET KIDS INTO SURVEY®

with Geo Ginger & The Last Surveyor

WELCOME TO THE WILD, WONDERFUL, WATERY WORLD OF ***HYDROGRAPHIC SURVEY***! DOWN HERE, IT'S ALL ABOUT *PRECISION*.

LUCKILY, THERE ARE LOTS OF WAYS TO MAKE ACCURATE MEASUREMENTS UNDERWATER. LIKE DOLPHINS, WE CAN USE ***SONAR*** TO LOCATE OBJECTS. WE CAN ALSO USE ***LIDAR*** TECHNOLOGY, HARNESSING THE POWER OF LASER BEAMS TO MEASURE DISTANCES. UNDERWATER PHOTOGRAPHY CAN BE USED TO TAKE MEASUREMENTS, AND IF ALL ELSE FAILS, DIVERS WITH A MEASURING TAPE CAN GET THE JOB DONE TOO!

HI! I'M THE LAST SURVEYOR, ON A BREAK FROM MY WORK WITH THE ***GEOSQUAD*** -- WHO YOU CAN SPOT ON THE BEACH -- AND I'M HERE TO EXPLORE THE WORLD OF ***HYDROGRAPHIC SURVEY*** WITH YOU. I'M FROM A FUTURE WITHOUT ANY SURVEYORS, SO IT'S AMAZING TO SEE SO MUCH GEOSURVEY ACTIVITY HAPPENING IN ONE PLACE! LET'S SEE WHAT THE SURVEYORS HERE ARE UP TO...

FIND IT...

1. There are machines and animals in this scene that use sonar - where the echoes of soundwaves are used to work out distances. How many vessels and animals can you see scanning their underwater surroundings?
2. Check out the vessels roaming around underwater. These ROVs (Remotely Operated Vehicles) work out their positions using sonar - measuring the distances to the sea bed 'transponders'. Can you identify the coordinates of the two yellow transponders below the surface of the water?
3. The impressive looking barge in (C,5) is dredging the seabed - moving material from one place to another. It depends on underwater mapping data collected by devices on the other vessels, both above and below the water. Can you spot any sandy hazards that the ship might need to avoid?
4. Have you noticed the long pipe stretching across the sea bed? It carries oil or gas from the platform at (H,6) to shore. There is a robotic 'sea snake' ROV nearby - what do you think it's up to?
5. The 'GeoPhysical' vessel (F,5) uses sound waves and magnetic readings from an array of 'hydrophones' to map the rock strata below the surface of the seabed. Can you look at the layers of underground rock and identify the species of dinosaur fossil trapped deep in the strata?
6. Surveyors use facilities like the base station (I,5) to keep track of GPS satellites, checking to see how much they drift out of orbit. These satellites provide accurate positioning measurements for vessels working offshore all over the world. Can you guess how many GPS satellites there are in space? A: 24 B: 124 C: 44

Find the answers at **www.getkidsintosurvey.com**