Lesson Plan Title: **Local water sources talk**

Concept / Topic to Teach: To understand exactly the place/ river/ lake where a class or school or area get their water from.

Target audience: Primary school: 3rd to 6th class and Secondary: all years.

General Goal(s): To provide an understanding of the direct link between a schools'/ an areas' water supply and the local freshwater resources, and to strengthen the appreciation of the benefit derived from these resources.

Specific Objectives:

- To investigate the exact source and route of a schools'/ areas water supply.
- To map this out.
- To create a better awareness about the rivers and lakes in a specific area as the sources of drinking water, and not just recreational resources.
- To make pupils realise the importance of local water resources to their community and learn to take care of them.
- To increase the understanding of where water comes from, and to instill in the pupils the attitude not to take water flowing from the tap for granted.

Seven Step Link: All

Required Materials:

- A map of the local area, showing the location and route of the main rivers, lakes etc. I managed to get a map showing all the water treatment plants along the River Boyne from my local Water Conservation Officer in Meath County Council. Otherwise you can use Google Maps or get maps from the OSI (Ordnance Survey Ireland) that could cover a particular geographic area and so be used for a number of schools.
- I also use large A3 posters like for my other talks/ workshops. They are great visual aids, and handy especially if you want to pass them around or walk around the classroom. My talks on water often complement each other so the same posters can be used when talking about the water cycle or the route of a water resource.
- A bit of prior investigation is needed by you yourself before going into the class. This is in order to establish what the local sources of water are for a particular school/ area and the routes of those water resources.

Preparation Level: Medium

Students' pre-requisite knowledge and skills: A basic understanding of the water cycle would be helpful.

Anticipatory Set (Lead-In):

This talk on the location and route of an area specific water source is essentially an exercise in making pupils think about water in a purely local perspective. As mentioned, you have to have already done the prior investigation into their sources of water. Once done, this work covers a number of schools e.g. schools in Fingal are all supplied by the Liffey, which runs from the Wicklow mountains, and is treated in Leixlip before being pumped up to Fingal.

It is obviously easier in an urban setting where there might be one main source of water supply, while in a rural area a bit more work is needed to see exactly where everyone's water comes from (some from local water schemes etc.).

As mentioned, I often use this talk on water sources in combination with discussions on other aspects of water (water treatment, water quality) so it depends when you want to address it. However you could still discuss it by itself before moving on to practical workshops if you wanted.

To start, it is simply a case of enquiring if a class know where their water comes from (if you have used this line already in the lesson, just add where EXACTLY and they become unsure). Some will know kind of, some will know exactly the name of the river etc. The next step is just to run through with them from start to finish where their water supply comes from, the source, which counties its runs through, what facility it is treated in, where the water tower/ reservoir is and then how it arrives at their house.

I do a talk/ lesson specifically on water treatment as well, but for this talk on water sources I focus more on the geographical location of the students water supply/ source so they get a good sense of where their water is coming from. All in all, it does not take a lot of time to explain the location and route of the water supply, but I find it provides a great level of understanding of local water resources, and feeds into other discussions well. Furthermore you can encourage pupils, with the teachers help to continue studying their local water resources after you've gone and there are any number of projects that can be done on them. Mapping them out in large scale is a favourite.

Step-By-Step Procedures:

As detailed above. Since this is mainly a talk on local water sources as opposed to a hands-on workshop, there is very little set-up as such. The main work is in the preparation before the lesson i.e. finding out about the local water supply so you can have the answers for the class and be able to explain it to them in detail.

Closure:

When finishing this talk, you can re-cap by giving a quick fire quiz. This is just a case of asking questions on what was discussed and learned during the talk.

Adaptations for students with learning difficulties:

Posters could be made with 3D versions of the sun, rain and rivers to give greater touch/ feel dimension. As well as this, models could be made of local rivers and lakes to give a good visual representation of them.

Extensions (for gifted students):

N/A

Links to other subjects:

Compliments and touches on many aspects of SPHE, science, geography.