

Survey of Primary Teachers in Ireland in relation to the teaching of Energy, Climate and Marine Topics

A. Background

The profile of climate and marine science has been increasing in recent years, and there is a greater need than ever for the next generation to understand and engage with these topics. In order to gain a better understanding of how the teaching of climate and marine science is addressed in Irish Primary schools, a survey was created in January 2020 to obtain the opinions of teachers on the subject. The survey sought to do a number of things:

1. To seek teachers' opinions on how important they felt these topics were for primary school children
2. To generate a list of the resources commonly used by teachers at present
3. To assess whether teachers viewed these resources as adequate to their needs or whether they felt further resources were needed
4. To gain an understanding as to what type of resources teachers felt would be most beneficial to them

The survey questions and a summary of the results is provided in the following links:

English:): <https://s.surveypplanet.com/snABCz9v>

Gaeilge: https://s.surveypplanet.com/RFjxlKJ_

Summary of survey results

1. In total, 47 teachers responded to the survey, from schools in eight different counties.
2. 98% of respondents rated the teaching of Climate and Marine Science as **important** and 79% considered it **very important** (see Figure 1).
3. Teachers were asked to evaluate the relative importance of several sub-topics: Climate, Marine Ecology, **Biodiversity** and Renewable energy. All four topics were ranked as highly important by teachers, with no individual topic emerging as being of greater importance than any other.

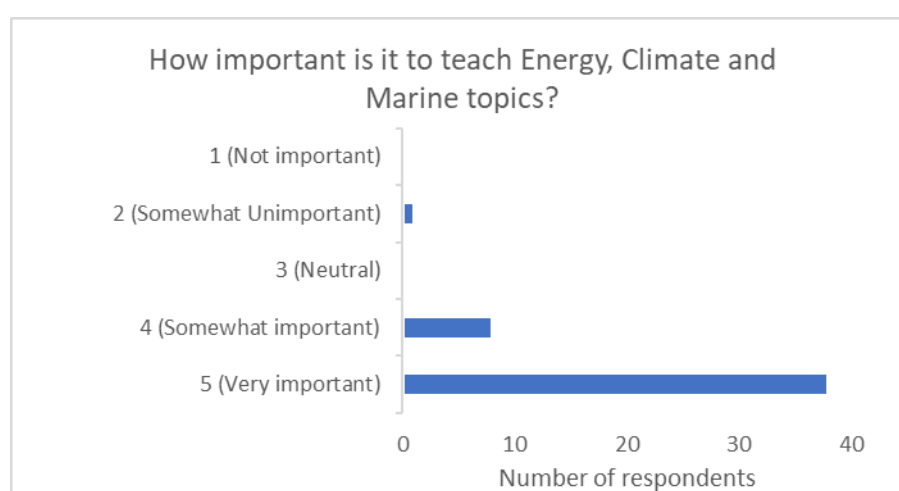


Figure 1. Showing how important teachers consider the teaching of Energy, Climate and Marine topics

4. Despite the clear perception that climate and marine science are important topics, 91% of respondents said that they did not have adequate resources at present for the teaching of these topics (see Figure 2).

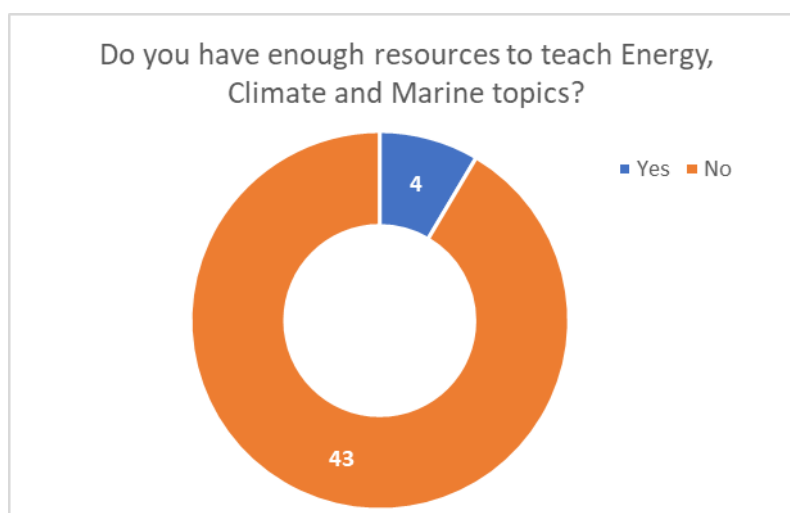


Figure 2. Showing how adequate teachers consider the current resources available for the teaching of Energy, Climate and Marine topics

5. 91% of respondents said that the creation of new resources for the teaching of BIODIVERSITY was ‘important’ and of these, 78% considered it ‘very important’.
6. When asked to list the resources they did use, it was evident that there was little consistency in the resources being used, and most respondents did not list any resources. There were also several significant nationally relevant resources which were listed by very few if any of the teachers (eg. Green Schools, MI Explorer Programme). Several teachers from Gaelscoileanna and Gaeltacht schools stated that the absence of resources through the Irish language is a significant block to teaching these topics in their schools.
7. Teachers were also given an opportunity to make general comments and suggestions, and some of the most significant or recurring of these are below, with some examples shown in Box 1:
 - There was particular interest in hands-on practical exercises for the classroom or outdoors and for ‘experiments’ which engage children directly in a topic
 - There was a preference for professionals coming in and offering blocks of practical lessons, ideally away from the classroom
 - While a CPD course on Climate and Marine Science would be welcomed by a majority (75%), the message was clear that teachers are already very busy with CPD on numeracy and literacy curriculum topics and that there may not be time for more such courses
 - Resources should be solution focussed, not too heavy for children and not so complex that they are not useful (must be pitched at the right level)
 - There was a feeling that more interactive, easily accessible online resources were the most desirable, although traditional resources such as information sheets, worksheets and books were still seen as being of great importance

“I don't see enough of these topics enough in the curriculum. I have always resourced my own information to create worksheets etc. Children have a curiosity for this area so we need to feed them more tools.”

“Resources need to be solution focussed rather than problem oriented”

“Children love experiments. And teacher love experiments that are easy to do! The children always remember things better when they do them in a hands-on way.”

“I think pupils respond most enthusiastically to non-traditional materials for topics like this, so digital technology, online video, hearing from scientists in the field, doing experiments all are of far more interest than worksheets or books. The later are great for revision or a base”

“A guest speaker would be extremely useful in teaching climate marine and environmental science”

“Is beag atá ar fáil go h-éasca dúinne de bharr a bheith ag lorg ábhar ar Gaeilg i gcanúint na mumhan”

Box 1. Showing some of the key comments received from the teachers' survey