

IBS&E

Inquiry Based Science and English projects



Objectius

- Integrate a Science project (inquiry based) in English (communicative use of language)
- Create tools to help and guide the integration and reflect on practice
- Workshop to share four IBS&E schools projects

Descripció de la proposta

In this itinerary you can find four IBS&E primary school projects about different aspects of the science topic: The Sound, and taking into account the language needs because all of them are produced in English, in a communicative approach: using the language to learn and learning to use the language.

The workshop IBS&E, which took place on July 4th 2017 in CESIRE, is the result of a three-year long group project with the aim of helping teachers to integrate the teaching of Inquiry Based Science and English in primary classrooms.

Aspectes didàctics i metodològics

IBS&E: IBS and E provides the meaning that both subjects are being taught in the same classroom. In an IBS&E classroom both subjects Science and English are effectively taught avoiding one to be the resource for the other. When teaching IBS&E in primary education, science cannot be considered a motivational context to develop communicative competences in English only. There are many approaches to teach Science and we have chosen one: Inquiry Based Science which we think can be nicely be taught together with a foreign language such as English. In addition, English is also taught through a communicative approach to foreign language education. In doing so we do not want to be levelling down either science nor English learning. This is the challenge, big challenge for CLIL and specially for IBS&E and the group has developed and used several tools to help you plan IBS&E teaching.

Recursos emprats

Tools to help you plan IBS&E teaching:

- Sound Chart: It is all about Sound!



The sound chart represents the most important contexts, ideas and concepts that underly the thinking, doing and talking about physical sound phenomena. It acts like a map of ideas. Each IBS&E classroom project can be situated within the Sound Chart helping the teacher gain awareness of what meaning can be built with children in the classroom. It is not for children to memorize, it is a map to situate the ideas that can be dealt with when undertaking inquiry based science activities. It can also serve the purpose of planning future sound projects and activities which can enrich children action, thinking and communicating about sound.

- Scientific Practices Chart:

This is the second chart that has been useful to become aware of the inquiry processes that are involved in inquiry based science education. There is an international agreement on the importance of inquiry based approaches to teach science at all educational levels. Science inquiry is an activity built around several fundamental scientific practices conducted by children to provide a scientific response to genuine and authentic questions.

- Discursive Practices Chart:

IBS&E considers communication as a discursive activity that can be performed with a communicative purpose which is situated. IBS&E communication is purposive and involves different discursive practices, many linguistic resources that can be activated while being used. IBS&E communication can be performed through several communicative skills: talking, listening, writing and reading, and around several genres such as describing, explaining, identifying, etc. The discursive practices chart can help us, teachers, to be aware of all language dimensions involved in children's communicative engagement.

Continguts, competències i processos que es treballen de forma destacada

These four didactic sequences have been designed taking into account the specific skills of the two subject areas involved plus some transferable competences.

Alumnat a qui s'adreça especialment

These CLIL materials are most suitable for children on the last stage of Primary Education. Students with special educational needs may also participate on a practical level: identifying sounds and noises, experimenting with different materials, etc.

Interdisciplinarietat, transversalitat, relacions amb l'entorn

This didactic sequence combines content from the English language curriculum and the Science curriculum.



Documents adjunts

- IBSE-poster-1st year
- Integration_Tables_2nd year
- Book chapter: Espinet, M., Valdés-Sánchez, L., Carrillo, N., Farró, L., Martínez, R., López, N., i Castellón, A. (2017). Promoting the Integration of Inquiry based Science and English learning in primary education through triadic partnerships. A A. W. Oliveira i M. H. Weinburgh (Eds.), Science Teacher Preparation in Content-Based Second Language Acquisition. Dordrecht: Springer. Pp 287-303 (<http://www.springer.com/us/book/9783319435145>).
- IBS&E workshop programme
- Workshop display_3rd year
- Sound Chart: It is all about Sound!
- Scientific Practices Chart
- Discursive Practices Chart

Autoria

All the materials have been designed and applied by primary school teachers of four different schools together with the teacher assistants from the graduate degree of Primary Education from UAB, and in collaboration with CESIRE and UAB:

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