

Little Scientists House Certification



Criteria

Three conditions that should be met before your application:

1. At least two Teachers or Educators at your service have taken part in 2 Little Scientists workshops.
2. Research in everyday life: STEM learning content is an integral part of the everyday life of children at your service.
3. All relevant projects, observations and experiments etc. are documented.

The requirements are expanded on below. If the three requirements are met in your service, then you can request the Little Scientists House application form.

Further education and training

At least two educators from each service are to attend two Little Scientists workshops. For small teams with less than five employees it is sufficient for one educator to take part in two training sessions per year. We want the educators at your service to have sufficient experience and knowledge of scientific and teaching methods.

Research in everyday life

Research in the everyday life of a service can be diverse. Children can pursue and research their interests independently or, where appropriate, can be supported by you as a learning coach. The children test their hypotheses and ideas through trial and error or make use of your suggestions for experiments. The children's own questions should always play a central role in research and discovery. Projects or project-oriented activities with long-term research phases are very suitable for STEM education processes. When using the inquiry-based approach you can be guided by the Inquiry Cycle method, allowing new learning experiences based on the questions the children raise. Choose an example that you have explored together with the children in the last twelve months, and describe it in the questionnaire. Please note: the project example you choose to document in the questionnaire should be suitable for children aged 3 – 6 years old.

Documentation

The projects, experiments and observations, etc. regarding a phenomenon need to be documented in your service. The form the documentation takes is left up to you and the children. You can use already established forms of documentation in your institution, such as research folders, learning stories or portfolios etc. The children should be able to use the documentation to communicate their findings and experiences to other children, parents or educators. They reflect upon their own research process during conversations or in the presentation of the documentation. As an educator, you can record the individual learning and development of the children with this documentation and reflect upon the recent learning activities and your role as a learning coach.

Questionnaire Content

The questionnaire consists of three sections:



Questions to management

In this part, you will find for instance questions about the pedagogical concept/philosophy underpinning your service and about the training sessions attended.

Questions to educators

The educators who are largely responsible for implementing STEM content in your service should answer the second part of the questionnaire. These questions relate for example to existing materials for research activities, as well as to the coordination of STEM learning content within the team.

Questions about the practical case study

This is the most extensive part of the application. It consists of questions about your practical scientific, mathematical or technical case study and should be filled out by the educators involved in it. Practical examples can be long-term projects or project-oriented activities with STEM learning content.

What is a project? What is a project-oriented activity?

Both a project and a project-oriented activity are linked to the experiential world and the interests of the children themselves. Themes emerge in the most diverse ways: They are raised by the children, ideas arise in conversations between children and/or with you or the observations of the children uncover specific interests. Science, Technology, Engineering and Mathematics should play an integral part in this. The children's self-activation and personal responsibility are at the heart of a project or project-oriented activity. This extends from planning and implementation to the presentation of the results (e.g. What answer was found to a question?). If topics are introduced by educators, the children should at least be involved in planning the rest of the process. The children should be between 3 - 6 years old.

Engaging with a topic over an extended period of time means that various aspects (facts and issues) of the theme can be examined and several learning areas involved. In contrast to a project-oriented activity with its open-ended approach, a project is always designed with a specific objective. When studying 'Water' for instance, an exploration of its properties involves testing what sinks and floats, making model ships - these are project-oriented activities. In contrast, the specific objective of creating a pond makes the activity a project, i.e. a single activity resulting in an altered state of reality. As such, there is always the possibility that a project can fail – e.g. when it turns out that the soil is unsuitable for building a pond. A project is characterised by the fact that something new, such as a pond in this case, is created or something which already exists is altered. In this sense, projects always have a link to a situation or the community.

Educators facilitate, support and witness the process in both projects and project-oriented activities.

For more information on project work please read the information in this PDF on Project work with children. This is a segment from the booklet accompanying the Optics: exploring Light, Colour, Vision workshop.

Frequently Asked Questions

What happens if my education and care service is not approved for certification?

Certification is intended to show that educators at a service are on a path of discovery with the children into the worlds of STEM. Each service does this in their own way. It is precisely this diversity that Little Scientists wishes to promote. What is important to the initiative is that the direction of the path is discernible - and that the minimum criteria is being met. It can happen that a service is not yet quite able to meet the criteria at the time of the application. This is not a problem: after this service has applied it receives instructions to further develop the flagged areas. A new application can be submitted after 6 months.

What do I do with the documentation?

Please keep the documentation in your service. Your local network may approach you to look at it if required. Little Scientists will also request documentation randomly from selected services.

