KiDE SCIENCE

Parent Handbook

for Science Adventure

Hands-on Heads-on Hearts-on

What is my role in this science adventure?

Facilitator (not commander)

Motivator (not a judge)

An active participant

What should I focus on as a parent?

Skills, not facts. According to research, the most important thing is to ask questions, wonder together and learn about the process of finding out about things ourselves.

“I can do this!” It is essential for the child to learn that they are capable. In our activities, the child gets to act as a scientist and help the characters of the stories, with the support of an adult.

Give the child opportunities to unleash their imagination and test their ideas. Creativity and imagination are needed in becoming a competent problem-solver. The story world is designed to help you with this.

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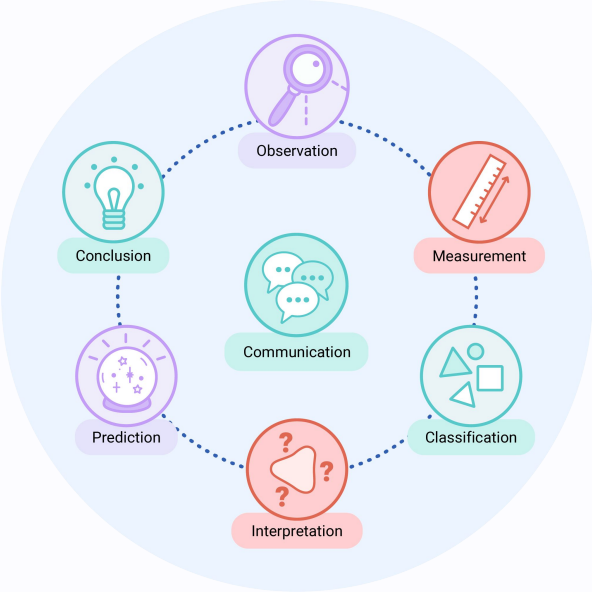
Learn science process skills,

instead of rote learning facts

By using our senses we collect information about the object of **observation.** The adult should support the child in verbalizing their observations.

By **conclusion**, we refer to the skill of summarising the information gathered during the research process.

A **prediction** is an educated guess on what is soon going to happen or will be observed. A prediction is made using previously learned information or experiences.



Interpretation happens when the child explains a phenomenon, event, or thing. An interpretation is never "'right or wrong", as it is always a subjective view on the situation.

Measuring can be done using either standardized units (centimetres) or with non-standardized units (the length of a finger). Measuring can also be counting (e.g. three coins).

Communication, for example, asking questions and wondering, should be encouraged in all research activities.

Classification means sorting objects into categories based on their qualities. The criteria for classification are human-made.

Science Adventure with Different-Aged Children

Kide Science activities are based on learning skills and enjoying experimenting. This makes the very same experiments adaptable for different aged scientists.

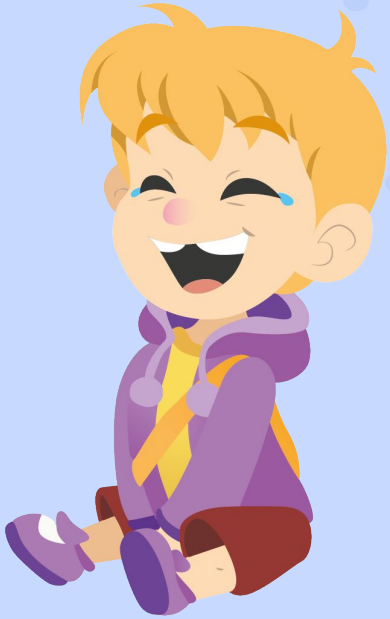
The key is to adjust the level of

- independence
- motoric help from the adult
- details in scientific concepts

Here we have gathered some practical tips for you on how to approach the Science Adventure materials with different aged scientists.

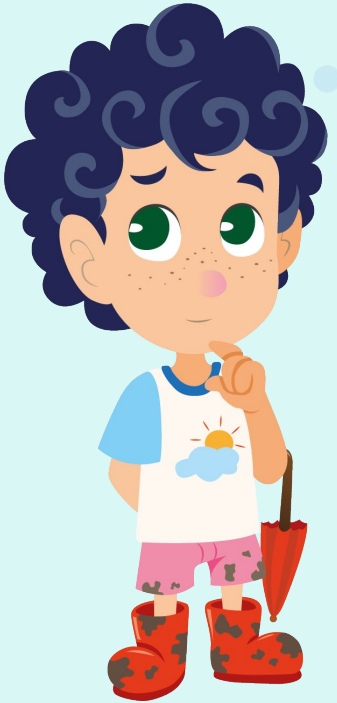
3–4 year-olds

- Start from the basics of science: making **observations**.
- Take your time and **communicate** your observations and experiences together: What colour do you see? How does the substance smell?
- **Show example** on how to verbalise and describe things.
- **Help** the child with **motorically** challenging tasks.
- Focus on **helping the story characters.**
- **Repetition** is important for the learning. Many little scientists **enjoy** doing the same experiments again and again!



5–6-year-olds

- Help the child to **communicate** their observations independently and in detail. Show example if needed.
- Start to practise the **more challenging science process skills**: making interpretations, conclusions and predictions on things you can repeat and observe in front of your eyes. Making predictions is one of the highest level skills required in the research process.
- To support the child's **reasoning**, you can start to ask more questions about cause and effect.



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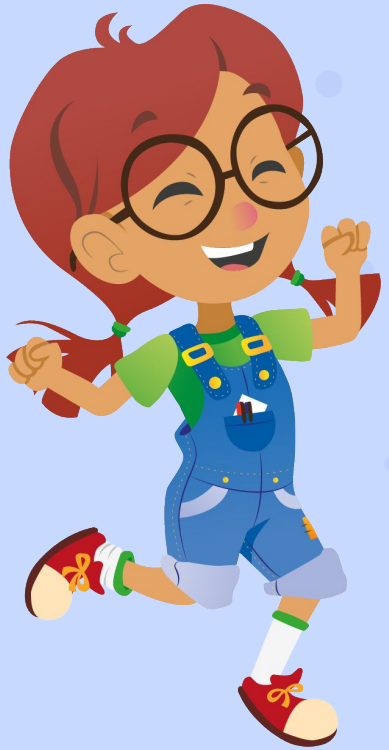
7–8-year-olds

- These scientists can do the experiments **more independently** or together with a peer. Let the child take responsibility of gathering the needed supplies. Be available as an adult research assistant when needed.
- Help the scientist verbalise their **observations in detail** and focus on more **precise reporting** by drawing and writing.
- Start making **more abstract and complex** interpretations, conclusions and predictions.
- Use **standardized measurements** and practise marking down numbers.



Kide Science Principles of Assessment

Kide Science's assessment methods are designed to support the children's feeling of competence and to make the learning of skills visible for both educators and children.

1. Learning goals are transparent for the learner and assessment is linked to these goals.
2. We assess the whole learning process, not just the end result.
3. We focus on supporting learning.
4. We focus on how to make practising science process skills visual.
5. The **child** is active in the assessment process, along with the **teachers, guardians** and others that might be working with them. All the participants are learners in the process.

What Can I Do as a Parent?

- Familiarize yourself with the materials sent to you beforehand.
- Especially with youngest scientists it is crucial to be there to offer a helping hand and encouragement, if something is tricky at first.
- Ask questions from your child after the lesson.
  - How did you help Hoseli and his friends this time?
  - What did you observe?
  - What was fun?
  - Was something tricky for you?
- Does your child have more questions after the lesson? Find out together, repeat the experiments if necessary and have fun.

The most important thing however...

We aim for the children to **experience joy and success**, because these positive emotions support learning and the child's self image as a learner - also for the years to come!

Contact us for more information, hoseli@kidescience.com