Teacher information: Description sheets for the LEAP

Material P24 is on the preparation of the descriptions sheets, which will finally presented at the LEAP. It includes the sheets (P24a-e) and supporting material for the analysis and evaluation of the results (P24g-i). It is accompanied by the presentation P24f, which introduces to the gathering, analysis, and evaluation of the results from the experiments and observations. **This presentation serves as the introduction to this part of the course.**

Since P24f is a presentation, it is not included in this file but is available as a separate file (MS Powerpoint) accompanying the PULCHRA Collection of Educational Materials. It can be downloaded from the PULCHRA homepage.

Along the template P24b – P24e, the students create a description sheet for each station of the Learning, Exploring and Activity Path (LEAP). The students can fill in the description sheets by hand or using a computer.

Since the profiles are addressed to the "public", the teacher should advise the students to write their texts in such a way that they can be understood by everyone and that they are of good text quality. The students can check and correct their texts mutually, or they can give them to the teacher for checking.

With regard to language-sensitive teaching, this material contains a sheet on phrasing assistance (P24h), which can help when filling out the description sheet, especially for students who have to work in a foreign language or students with language support needs in general.

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Our school – a Learning, Exploring and Activity Path

Station 1: The stream

Description:

Our research question:

Our hypothesis:

This is how we investigated it:

Materials:	Experimental set-up:
Procedure:	

Here is what we found out:

Our hypothesis was ☐ **confirmed** ☐ **refuted**

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Our school – a Learning, Exploring and Activity Path

Station 2: The park

Description:

Our research question:

Our hypothesis:

This is how we investigated it:

Materials:	Experimental set-up:
Procedure:	

Here is what we found out:

Our hypothesis was ☐ confirmed ☐ refuted

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Our school – a Learning, Exploring and Activity Path

Station 3: The school building

Description:

Our research question:

Our hypothesis:

This is how we investigated it:

Materials:	Experimental set-up:
Procedure:	

Here is what we found out:

Our hypothesis was ☐ **confirmed** ☐ **refuted**

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Our school – a Learning, Exploring and Activity Path

Station 4: The schoolyard

Description:

Our research question:

Our hypothesis:

This is how we investigated it:

Materials:	Experimental set-up:
Procedure:	

Here is what we found out:

Our hypothesis was ☐ confirmed ☐ refuted

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Our school – a Learning, Exploring and Activity Path

Station 5: The sports ground

Description:

Our research question:

Our hypothesis:

This is how we investigated it:

Materials:	Experimental set-up:
Procedure:	

Here is what we found out:

Our hypothesis was ☐ **confirmed** ☐ **refuted**

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Presentation of results

Task: Create a first draft of your description sheet. You can use the phrasing assistance on sheet P24h.

	done! ✓
1. Create a **description of the place**. Regard the following a. Your original description of the place b. Further information on the site collected during the experiment.	
2. Write down your **research question** and **hypothesis** on the description sheet.	
3. Create a **list of materials** containing the things you used for the experiment, the measurement, or the observation that belongs to your place.	
4. Describe the **experimental set-up** you used for your experiment. You can either a. describe the experiment in writing OR b. illustrate the experimental set-up with a drawing.	
5. Describe the **procedure** during the experiment.	
6. Describe the results of your experiment. a. Write a short summary (two to three sentences) about what you found out. b. Present you results in a clear and vivid way using <u>at least two</u> display formats. The following list shows some suggestions but you can develop your own form as well. 1. Diagram 2. Comic 3. Story 4. Drawing	

When you are done with everything:

1. **Show your description sheet to your teacher and have it checked.**
2. **Make a final version of your description sheet by copying it down nicely. This profile will be laminated and will be presented at your station of our LEAP.**

Phrasing assistance

Phrasing assistance "description":

Write in this field the special characteristics of the place. This could be, for example what the place looks like. You can describe the soil, important plants, the appearance of the water, or whether the sky is visible. Doing this, you should also pay attention to your research question.

Phrasing assistance "hypothesis":

A hypothesis always refers to question. In addition, there must be a way to test what is stated in the hypothesis. Thus, a hypothesis can often be formed by repeating parts of the question. For example, a hypothesis for the question "when will it be light?" may be "It will be light when the sun rises". This can easily be tested by observing the light in the early morning.

Phrasing assistance "materials and experimental set-up":

This part becomes most clearly arranged if you write down the material in a list. You can list the material in the order in which it was used. You can also draw the experimental set-up.

Phrasing assistance "procedure":

Write short sentences on what your group did like "At first we… Then we… Finally we…".

Phrasing assistance "results":

In the results, you can describe what you observed: "We observed that..."

You can describe what you have measured: "We have measured … It was …. °C warm; … meters long; … km/h fast."

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Checklists

Description

	++	0	--
Things that can be seen are described.			
The **colors** of the things/plants are described.			
The **sizes** of things/plants are described.			

Materials

	++	0	--
All the things needed for the experiment are named.			
The materials are clearly presented in an orderly list.			

Experimental set-up

	++	0	--
drawn:			
The picture is clearly visible and neatly drawn.			
The image is labeled (e.g. with arrows and names of the things).			
written:			
Someone who did not do the experiment can understand…			
…where the experiment was conducted.			
…what was measured.			
…what was used to measure.			

Procedure

	++	0	--
The words or terms “at first”, “then”, “thereafter” are used to show what was done **in which order**.			
All steps of the experiment are described.			

Symbols: ++ completely fulfilled
0 partly fulfilled
-- not fulfilled