

Teaching material on the topic „Preservation of biodiversity“

Title: Intraspecific diversity – old potato species

Author: Nina-Sophie Riesner, Student of the university of Flensburg

Class level: primary school

Sort of material: Cooking and tasting of old potato species, material for the teacher and questions for the children

Aims: positive thinking, activity-oriented and active learning, process to produce an awareness of the taste of potatoes and the multifunctional use of potatoes

Intraspecific diversity – old potato species **(Material for the teacher)**

In this teaching unit, the pupils in primary school learn something about old potato species, what they taste and look like. It is really important that the pupils understand where the potatoes come from, that they can taste really good and that they are healthy food.

The plan for the lesson is to cook special species of potato. For this, the teacher should try to get four different old potato species from his/her country.

→ You can find examples of the different species in the attachment

Plan:

The teacher tells the pupils something about the old potato species, makes it clear to them where they come from and why these old potato species are no longer grown in their country.

→ You can find a text about this story in the attachment

After this, the teacher introduces the pupils to the work and helps them to prepare and cook the old potatoes. The teacher should make it clear that s/he will prepare the potatoes and pour off the water or that the pupils should only do this in his/her presence.

→ Worksheet „How to cook potatoes“

While the potatoes are cooking, the pupils should draw a picture of their potato species and write the name above their drawing.

→ Discussion: Did you like the potatoes and what did they taste like? Which old potato species tasted the best? What would it be like if we only had, for example, pasta and rice to eat? Would there be a difference in our eating behaviour?

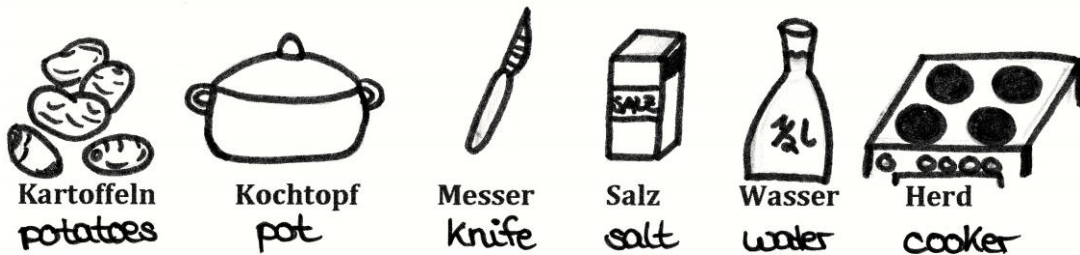
More tasks:

- Long term task: Grow your own old potato species in the school garden and record what happens.

How to cook potatoes

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Material:



Task 1:

1. Look at the potato. What do you see? What does it look like?
2. Cut the potato in half. What do you see?
3. Peel the potato and cut it into smaller pieces.
4. Put the potatoes into the pot, pour water over them and add a little salt.
5. Place the pot on the cooker and heat it up.
6. Let the potatoes cook until they are soft.
7. Now draw a picture of your old potato species and label your picture with the name of the potato.
8. Check the softness of the potatoes with a knife. For this, prick into the potato with the knife.
9. Pour the water off into the sink. Ask your teacher for help!
(BEWARE: IT'S HOT!!!)
10. Let the potatoes cool down a little bit.
11. Try the potatoes. How do they taste? Describe the taste.

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Attachment

Old potato species from different countries

country	potato name
Bangladesh	Lal Shil
Belgium	Reina, Nadia
Bolivia	Waycha
Chile	Uach
Germany	Bamberger Hörnchen, Desiree, Blaue Schweden
Denmark	Aeggebloome, Asparges
Finland	Puikula
France	Belle de Fontenay, Bleue de la Manche, La Ratte
Georgia	Cerni Kartoffeli
Great Britain	British Queen, Golden Wonder, Red Duke of York
Ireland	Skerry Blue
Iceland	Raudar Islenskar
Italy	Blaue Ludiano, Patate Verrayes
Japan	Tarumae
Lapland	Puikula
Netherlands	Bintje, Record
Peru	Puca Quitsch, Peru Azul, Chasca Mallco, CCanchilli Malleo, Alcca Yana Imilla, Vitelotte, q`achun waqachi, Lima, Solanum andigana, Yuraq Compis, Ccompis, Cusoi Peru
Poland	Krokus, Pilica
Scotland	Arran Victory, Highland Burgundy Red
Sweden	Amanda
Switzerland	Pfavi, Fläckler, Safier
Czech Republic	Kerkovske rohlicky, Valfi
Hungary	Majus kiraly, Hopehely

Origin and cultivation of the potato **(Information for the teacher)**

Today the potato counts as one of the most eaten foods in our country. This is not self-evident because the potato originally comes from South America.

More than two thousand years ago, the Incas in the Andes discovered that the potato was edible, digestible and filling. The European explorers, however, were more interested in gold and silver. That's why the potato only came to Europe about four hundred years ago, one hundred years after the 'New Continent' was discovered.

At first the potato plants were seen as ornamental plants. It was not until some years later that people in Spain and Italy discovered that the root tuber which grows underground is really delicious. Three hundred years ago the Germans realised the value of the potato. The root tuber was very important for poor people. It filled them up and provided essential nutrients. All this was very important at a time when famines were common in the world. Today the potato is valued all around the world.

The cultivation of the potato starts in the middle of April. Then the root tubers are planted. These root tubers are called „mother tubers“. They form shoots in the ground, which later on will form potato plants. After four weeks the shoots burst out of the ground onto the surface. Now they grow really fast. They can reach a height of one metre.

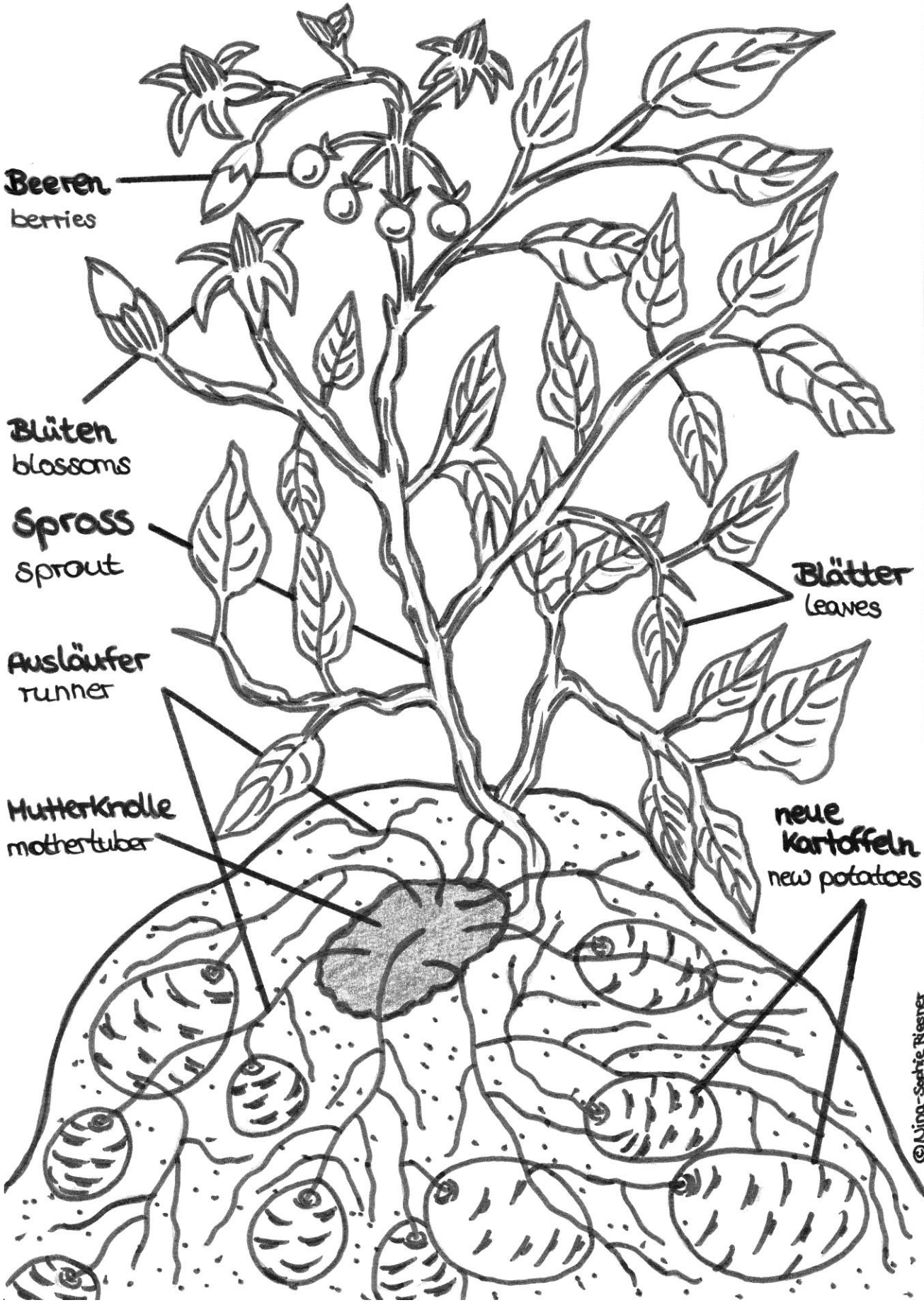
First the plants get flowers and later on berries. The berries contain the potato seeds. But be careful, they are toxic.

Only the ground contains what we can eat. Down here runners spring from the „mother tuber“. About fifteen new potatoes will develop from these runners.

The growing of the potatoes costs the life of the „mother tuber“. She goes dark, shrinks and dies. About September the potato plant fades. This is the sign that the potatoes in the ground are ripe and ready to be harvested.

The old potato species are no longer cultivated, because they need large quantities of water, are really susceptible to bugs and diseases and don't have a good yield. For the economy, profitable potatoes are needed, because lots of food and medical products are made out of them. That is the reason why farmers and industries only grow new potato species.

The potato plant



Beeren
berries

Blüten
blossoms

Spross
sprout

Ausläufer
runner

Mutterknolle
mother tuber

Blätter
leaves

neue
Kartoffeln
new potatoes