

Acorn Germination (ages 3-5)

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Summary: The children study germination on acorns gathered in the forest, then sowed either in a bucket of stones or in a bucket of soil.

Objective: To realise that germination is a phenomenon that can be found in nature, without human intervention.

Target concepts: Observation of characteristics of living organisms

Duration: Around 6 sessions.

Materials: Acorns, water, watering can, soil, rocks, buckets.

Problem situation: What do acorns turn into?

Going to gather acorns in the forest – Group session

Note the changes compared with our last autumn outing.

The children discover acorns:

- "What are these?"
- "Are they all the same?"
- "Where are they found?"
- "Why are they here?"

Anything under the oak trees can be picked up.

Classifying what we have gathered – in small groups

The children all empty out their bags and place their content on four large white boxes:

moss	acorns	leaves	other
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Observing the acorns – in small groups

Description

- "They are brown."
- "Some of them have something coming out of them."
- "Others are broken."
- "They are closed."
- "This one is rotten."
- "There is a little bit of red."
- "They have a tail."

They are divided into two families

The ones with something coming out of them	The others
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lexicon: the thing coming out of the acorn is known as a shoot.





Two acorns, one with and one without a shoot, are drawn

Why do certain acorns have a shoot?

Why do certain acorns have a shoot?

- "That is what attached them to the tree".
- "They are going to grow."
- "They are roots."
- "It's for growing into the soil."
- "It's for making flowers."

Why do other ones not have them?

- "They lost their tail."
- "They lost their skin."
- "They are rotten."
- "They are broken."

A Brief History of Acorns

Where do they come from? Where did we find them?

- "They come from the forest above our school."
- "We found them on the ground."
- "They were in the moss."
- "They were in the trees."
- "They were over by the oak trees."

What is the use of acorns?

- "They are used to be gathered."
- "They are used to look nice."
- "They are used as animal food."
- "They are used to be looked at."
- "They are used to make trees."
- "They have no use."
- "They can be made into flowers."
- "It's going to become a tree in the classroom."
- "They are used to grow to make a tree or flowers or rose bushes."

How can we tell if acorns can grow?

Hypotheses set forth by the children

- "You have to put them in a bucket."
- "You have to put in soil."
- "You have to put them in the rocks."
- "You have to put in water."

What materials are required to carry out this experiment?

- "soil or rocks",
- "a bucket",
- "a shovel",
- "a watering can".

It is decided that some of the acorns should be put in the bucket of rocks, and others in the bucket of soil.



Experiment implementation

Carrying out the experiment.

Drawing – See results below.

Imagining what is going to happen.

Observations after two weeks

Observation and verbal description

- "The acorns in the bucket of stones didn't grow."
- "Maybe we didn't wait long enough."
- "It's a little too dry."
- "The stones are too big."
- "The acorns in the other bucket grew."
- "Some look the same."
- "There are leaves."

The children draw what they see, making note of the date and number of acorns that grew leaves. See results below.

The class makes a group poster board, with photographs.

Student production

