

## pLatform for INnovation in Natural science onlinE education

# Didactic Unit (DU)/Lesson plan

## Life in the Desert

Contract No.: EU-Programme: Authors 2022-1-IT02-KA220-SCH-000088667 Erasmus+, KA220-SCH - Cooperation partnerships in school education Newark School (MT)



Co-funded by the European Union

LINNEO project has been funded with the support of the European Commission. The responsibility for the content of this publication is borne solely by the publisher; the Commission is not liable for any further use of the information contained therein.



### OVERALL DESCRIPTION

Sections	Description
1. DUs Title	Life in the desert
2. Brief description	This topic relates to the plant world and is taught as part of the science syllabus in Year 5. This DU deals with deserts and dry habitats, their emergence and the different plants growing in this habitat
3. Beneficiaries	Year 5 students aged 8-9 years old. Primary school teachers can utilise this resource for their science lessons
4. Total hours	x3 lessons of 40 minutes each, a total of 120 minutes
6. Aim/s	To learn about desert environments and the different plant species that live in this habitat.
7. Subjects involved	Science and Biology
8. Expected results	Group activity - Chart on a chosen plant species that thrives in the desert



### WORKPLAN

Phase/Title/ Lessons	Brief description	Subjects	Aims	Knowledge and Competences	Educational strategy	Tools and resources	Setting*	Evaluation and assessment	Duration
Lesson 1: Dry habitats	T introduces topic by asking Ss a question: Which environment has very little water and is very difficult to live in? Answer: a desert. T shows Ss a presentation video detailing different dry habitats -Desert, sand dunes and continental dunes, Mediterranean sclerophyllous forests) Using information from the video, Ss work out the first and second exercise from the worksheet.	Science Biology	To recognise what a desert environment contains. To differentiate between different types of dry habitats – desert, sand dunes & mixed forests.	To be able to recognize what a desert environment looks like. To be able to distinguish between different types of dry habitats (Desert, sand dunes and continental dunes, Mediterranean sclerophyllous forests)	Frontal lesson – the teacher is at the front of the class and the students follow the lesson from their desks, using the worksheet provided for the lesson.	Video from LINNEO project Different dry habitats Worksheet Dry habitats (annexed)	Physical classroom setting Projector screen	Class correction of worksheet exercises.	40 minutes



	T initiates class correction, class discussion for exercise 3 answers. Lead out question: can you name the type of dry habitat one can find in Europe? Answer: sclerophyllous/mixed forest.								
Lesson 2: How desert environments emerge	T introduces lesson by asking Ss: do you think deserts were always deserts? Can a normal environment become a desert? How? T shows students video explaining how deserts emerge. T points out that there are natural and human causes for desertification. T instructs Ss to work out desertification worksheet in pairs. They must fill in each	Science Biology	To understand that a desert environment can emerge from a different type of environment. To understand what causes desertification (human & natural factors)	Collaborative skills when working in pairs. Writing skills.	Directive/ interactive lesson – engaging Ss with videos and opportunities to contribute to class discussions. Collaborative – working in pairs to execute a task.	Video from LINNEO project Desertification Worksheet desertification (annexed)	Physical classroom setting Projector screen Whiteboard	Monitoring of group work Class correction of worksheet.	40 minutes

LINNEO project No. 2022-1-IT02-KA220-SCH-000088667



	box with factors leading to desertification (human & natural) using information from the video. Lead out: Mindmap activity - T asks students what we can do to prevent desertification & writes student ideas on the whiteboard.								
	T introduces lesson by reminding	Science Biology	To understand what plant	To understand the basic	Directive/ interactive	Video from LINNEO	Physical classroom	Correction of	
	students of different		species are	needs of plant	lesson –	project	setting	worksheet	
	dry habitats		able to live in	life.	engaging Ss	Desert plants		exercise – fill	
	discussed in		a dry		with videos		Projector	in the	
	previous lessons.		environment.	English Writing	and	Worksheet	screen	blanks.	
	T shows video on		To ovoloin	skills	opportunities to contribute	Desert plants	Desks	Analysis of	
	desert plants – this		To explain how certain	English	to class	(annexed)	must be	charts	
	explains different		plants are	Listening skills	discussions.	Chart	joined	produced by	
	plant species that		able to survive			material:	together in	the	
	survive in the desert		in a dry	Collaborative	Collaborative	carboard	groups of 4	students.	
	(aloe vera, golden		environment.	skills for group	– working in	paper,	students		
	barrel cactus, desert			chart activity.	groups of 4 to	markers,	for the		
Lesson 3:	ironwood, Mexican		To produce a		create a	pictures of	group		
Desert plants	firecracker, lamb's		chart on a		chart.	desert plants,	project.		40
	ear, Silver torch,		selected plant			scissors, etc.			minutes
	Welwitschia, Persian		species that						
	Shallot bulbs)								

LINNEO project No. 2022-1-IT02-KA220-SCH-000088667



	lives in the		
T shows the video a	desert.		
second time, this			
time Ss have to fill in			
missing information			
on each plant in the			
worksheet.			
Class correction of			
worksheet.			
T puts Ss in groups of			
4 and instructs them			
to choose one plant			
that survives in the			
desert. They must			
make a chart about			
it, explaining how it is			
able to survive.			
Lead out: Ss display			
their charts.			

\*Setting: organisation of classroom space (physical and virtual) functional to the activity, provision of resources (technological and others), management of resources.

## Dry Habitats

### Exercise 1 - Answer True or False.

- A desert is characterised by a hot climate and a lack of water.
- 2. All dry habitats look the same. \_\_\_\_\_.
- 3. Nothing can survive in a desert environment. \_\_\_\_\_.
- 4. In Europe, we do not have any dry habitats. \_\_\_\_\_.
- 5. Some plants are specially designed to survive dry environments by holding on to water. \_\_\_\_\_.

# Exercise 2 - Circle around the areas where deserts are more common.



#### Exercise 3 - Questions:

- 1. Why do you think these areas contain more deserts?
- 2. Why are there less deserts in Europe?

3. What type of dry habitat can we find in Europe?

### Exercise 4 - Match the type of dry habitat to its picture.

#### Desert •

Sand dune/ continental dune •

Mediterranean sclerophyllous forest •

#### Lesson notes: Different dry habitats.

A desert is a very dry and hot place where it hardly ever rains. Deserts are more common in North America, North Africa and the Middle east, but we still find dry habitats is Europe. There is very little vegetation in desert environments, but some plants such as the Cactus plant that has a thick waxy outer layer to hold water.

One can find other dry habitats such as sand dunes and sclerophyllous forests. Sand dunes contain other plants such as Marram grass that has long tough leaves which helps it to survive the shifting sands.

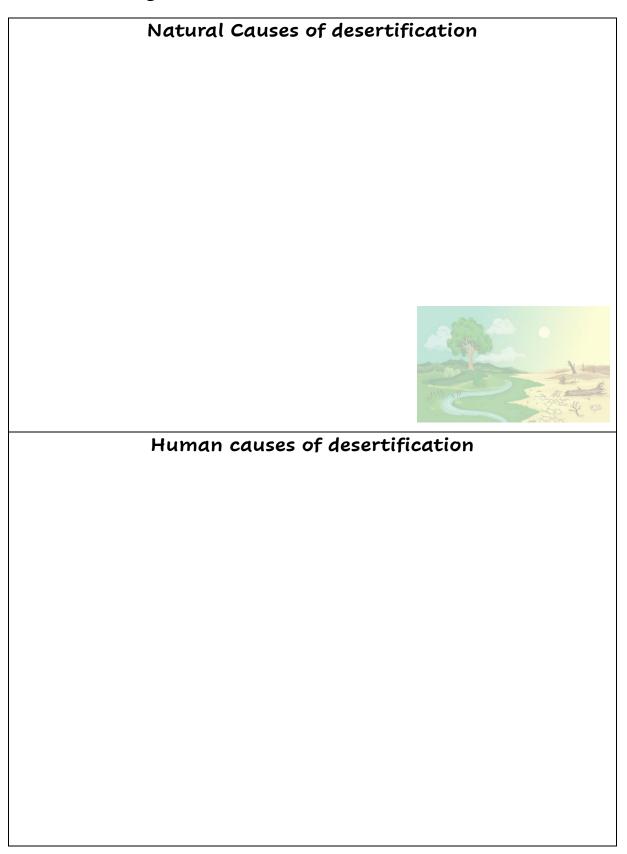






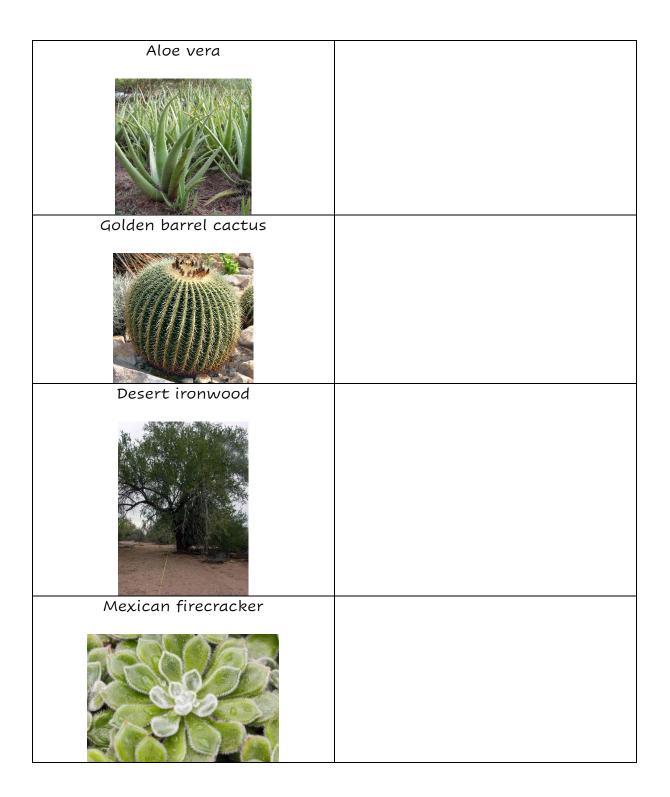


### Emergence of deserts – Desertification



## **Desert Plants**

From the information gathered from the video, explain how each plant species is able to survive in the desert.



Lamb's ear	
Silver torch	
Welwitschia	
Persian Shallot bulbs	