







The planet is in trouble... What can we do to save it?



Mare de Déu del Carme Patricia Grande Fernández Daniel Matallín Baena

Generació Plurilingüe (GEP)

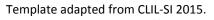
Year 2 2019-2020

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Identification of the GEP project

Title	The planet is in trouble What can we do to save it?
Authorship	Patricia Grande Fernández and Daniel Matallín Baena
School	Mare de Déu del Carme (El Prat de Llobregat)
Students' CEFR Level (A1, A2)	A1
Grade	6th grade of Primary education
Content area(s)	Science
Number of sessions (4, 6 or 9)	6 sessions
Teacher(s) involved	Patricia Grande Fernández and Daniel Matallín Baena
Keywords	Earth, phases of investigation and environment.













1. OUR PROJECT

Introduction: The learners of 6th grade of Primary Education are going to be working the phases of a scientific investigation through a project related to ecosystems and environmental management. We have created different tasks to work through talking, reading and writing skills.

Students will create a poster in a cooperative way for the school community (teachers and students) describing how they can improve and protect the environment. The students are going to describe it to the primary students and also to our language assistant in order to show them what our necessities are and how we can help the environment.

Driving question: What can we do to save the planet?

Final product: **Create** a poster in a cooperative way for the school community (teachers and students) describing how they can improve and protect the environment. The students are going to **describe** it to the primary students and also to our language assistant in order to show them what our necessities are and how we can help the environment.

2. GOALS	2. HOW DO YOU KNOW STUDENTS ARE MAKING PROGRESS? (assessment criteria)
1. Defining ecosystems.	
Explaining causes and effects of human actions in ecosystems (through an investigation).	1.1. Students are able to describe the scientific method through a poster.
3. Being able to follow the scientific method to describe	1.2. Students are able to describe the scientific method using the appropriate language items given. For example: order (first, second,

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the investigation.

4. Expressing proposals to improve and protect the environment.

third...; using the conditional tense to write the hypothesis). They use it in order to create their own portfolio.

They are able to follow the different steps to do the research.

3. CURRICULUM CONNECTIONS SPECIFIC COMPETENCES AND KEY CONTENTS

Subject-mat	er curriculum	Foreign language curriculum				
Specific Competences	Key Contents	Specific Competences	Key Contents			
Dimensió món actual Competència 1. Plantejar-se preguntes sobre el medi, utilitzar estratègies de cerca de dades i analitzar resultats per trobar respostes. Competència 4. Analitzar paisatges i ecosistemes tenint en compte els factors socials i	 Ecosystems. Phases of investigation (design, analysis, hypothesis, communicate and conclusions). Environmental management. Natural phenomena and environmental risks. Security rules in the lab (if 	ENGLISH Comunicació oral Competència 1. Comprendre textos orals de la vida quotidiana, dels mitjans de comunicació i escolars. Competència 3. Interactuar oralment d'acord amb la situació comunicativa, utilitzant estratègies conversacionals. Comprensió lectora	Comunicació oral Producció d'instruccions de treball i d'actuació a l'aula. Participació activa en les interaccions orals a l'aula emprant la pronunciació, l'entonació, el ritme i les estructures orals treballades i respectant les normes bàsiques de comunicació (torn de			

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naturals que els configuren, per valorar les actuacions que els afecten.

Competència Valorar problemes socials rellevants interpretant-ne les causes i les conseqüències per plantejar propostes de futur.

Dimensió tecnologia i vida quotidiana

Competència Utilitzar materials de manera eficient amb coneixements científics i criteris tecnològics, per resoldre situacions quotidianes.

we will need it).

• Techniques in the lab related to the materials (if we will need it).

Competència 4. Aplicar estratègies per informació bàsica comprendre textos escrits senzills o adaptats de la vida Exposició oral en grup de temes quotidiana, dels mitjans de treballats i utilitzant tots els de l'àmbit comunicació i escolar.

Competència 6. Utilitzar eines de consulta per accedir a la comprensió de textos.

Expressió escrita

Competència 8. Produir textos senzills amb adequació a la situació comunicativa i amb l'ajut de suports.

paraula, to de veu).

obtenir | Ús de les estructures pròpies de la llengua estrangera en les produccions orals.

> suports visuals i informàtics disponibles.

Comprensió lectora

Comprensió d'instruccions de treball i d'actuació a l'aula.

Comprensió global i específica de textos de tipologia contingut divers i en diferents suports i formats i extracció d'informació per α realització d'una tasca concreta com reforç/ampliació dels

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coneixements. Expressió escrita Producció de textos (poster) d'extensió controlada seguint models treballats a l'aula amb finalitat comunicativa, utilitzant, quan calgui, els recursos que ofereixen les TIC o d'altres llenguatges. Ús de les estructures pròpies de la llengua estrangera en les produccions escrites. Interès per la presentació acurada dels textos escrits.

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4. 21st CENTURY COMPETENCES						
Collaboration	X	Information, media and technology	Х			
Communication	Х	Leadership & Responsibility	Х			
Critical Thinking and Problem Solving	Х	Initiative & Self-direction	Х			
Creativity & Innovation	Х	Social & Cross-cultural	Х			
Others:						

5. KEY COMPETENCES							
Communicative, linguistic and audiovisual competence	Х	Digital competence	Х				
Mathematical competence		Social and civic competence	Х				
Interaction with the physical world competence	Х	Learning to learn competence	Х				
Cultural & artistic competence	Х	Personal initiative and entrepreneurship competence	Х				

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6. CONTENT (Knowledge and Skills)						
CONTENT-RELATED KNOWLEDGE	CONTENT-RELATED SKILLS					
 Ecosystems. Phases of investigation (design, analysis, hypothesis, communicate and conclusions). Environmental management. Natural phenomena and environmental risks. Security rules in the lab (if we will need it). Techniques in the lab related to the materials (if we will need it). 	 Ecosystems. Phases of investigation (design, analysis, hypothesis, communicate and conclusions). Environmental management. Natural phenomena and environmental risks. Security rules in the lab (if we will need it). Techniques in the lab related to the materials (if we will need it). 					

7. REFERENCES

https://www.pexels.com

8. COMMENTS (optional)

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9. ACKNOWLEDGEMENTS (optional)

Skills: R: reading, S:speaking, L: listening, W: writing, I: Interaction

Interaction: T-S: teacher-student, S-S: student-student, SG: small groups, WG: whole group, S-Expert, S-World Assessment: PA: Peer assessment, SA: Self-assessment, TA: Teacher assessment, AT: Assessment tools

10. UNIT OVERVIEW									
Session	Activities	Timing	Skills	Interaction	ICT	Assessment			
1	CONNECTING IDEAS	15'	R, S, L,	SG					

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(real session 1)	WHY DO WE NEED DIFFERENT PHASES?	25'	S, L, W,	SG, WG	
	LET'S CREATE A LOGO!	20'	S, L, W,	SG	
_	REFRESH THE IDEAS!	10'	S, L, I	WG	Youtube video
(real session 2)	PREPARING THE RESEARCH	35'	R, S, W, I	SG, WG	Tablets.
	PLAY A KAHOOT	15'	R, S, W, I	sg, wg	Kahoot.
	THINKING QUESTIONS	20'	R, S, L,	T-S, S-S	
3	INTRODUCING THE TOPIC	10'	S, L, I	T-S, WG	Youtube video
(real session 3)	POSITIVE AND NEGATIVE HUMAN ACTIONS	15'	S, L, W,	WG	
	IT'S TIME TO REACT!	10'	S, L, I	WG	Youtube video











	CREATE A QUESTION	5'	L	T-S		
(real session 4)	LET'S DECIDE THE QUESTION!	45' + 15'	S, L, W,	T-S, S-S, SG, WG		
5 (*o.g.)	DECIDE THE HYPOTHESIS	20'	S, L, W, R, I	T-S, S-S, SG	Tablets	TA Rubric
(real session 5)	PLANNING TO TEST AND OBSERVE	40'	S, L, W, R, I	T-S, S-S, SG, WG		TA Rubric
	THE OBSERVING TIME HAS FINISHED NOW, WRITE THE CONCLUSIONS!	20'	S, L, W, R, I	T-S, S-S, SG		TA Rubric
(real session 9)	LET'S START THE POSTER!	20'	S, L, W, R, I	T-S, S-S, SG, WG	Computers	
	DAFO	20'	S, L, W, R, I	T-S, S-S, SG		SA
Real session 6-7	Each group will have to follow the planning they prepared on the previous lesson in order to start doing the observation or their experiment.	30'	S, R, I	T-S, S-S, SG		











	They'll have to bring the materials they need in order to develop it.					
	At the end of each session, they will have to describe their progress in the worksheets of the experimentation/observation in order to include them in their portfolio.	20'	S, W, R, I	T-S, S-S, SG		
	The group will assess themselves using a rubric of self-avaluation.	10'	S, W, R, I	T-S, S-S, SG		SA
	Students will continue creating their own poster.	45'	S, I	T-S, S-S, SG	Computers / Tablets	
Real session 8	At the end of the lesson, they will have to complete the self-assessment rubric, that can be the same as for the teacher to analyze and evaluate the poster.	15'	S, W, R, I	T-S, S-S, SG		SA
Real session 10	Students will present to their classmates the posters they have	50'	S, L, I	T-S, S-S, SG, WG	Computers / Projector	

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prepared, in which they have included all the parts of the scientific method.				
At the end of the process each group	10'	S, W,	T-S, S-S, SG	SA, TA
will coevaluate the exposition of the		R, I		
other groups in order to assess them.				

11. SESSION PLANNING

SESSION 1: The scientific method

Objectives of the session:

- Discovering and understanding what a scientific method is.
- Being able to explain the process of a scientific method.

Content-obligatory language for the session:

- Ordinal numbers.
- Present simple.
- Structures of opinion: I think that, I believe that, etc.

Activities

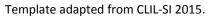
include: Name and description; Assessment tool (if any); Material (including language support)











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1.1	Activity 1: CONNECTING IDEAS The students are going to be arranged in groups of 4 as they are going to work in their cooperative groups. We are going to start the class giving to each group 6 pieces of paper where there are going to be written the different phases of investigation, which are: 1. Ask a question. 2. Research for information. 3. Create a hypothesis. 4. Test the hypothesis. Observe or create an experiment to see if you are right. 5. Analyze the results. 6. Share the results. Each group has to order these phases in order to follow correctly the scientific method.	15'	R, S, L, I	SG	
1.2	Activity 2: WHY DO WE NEED DIFFERENT PHASES? After that, the teacher will give a new worksheet for each student where they will see the phases of the scientific method in the correct order. Under each phase, using the talking chips strategy : the students are going to discuss different questions the teacher has given to them. In order to speak, each student must put his or her colour in a plastic cup. His or her classmates cannot interrupt and must be listening to what he or she is talking about. When he or she is finished, another student places his or her colour in the same	25'	S, L, W, I	SG, WG	











	plastic cup and he or she can continue the discussion. When everyone has spoken in the group, then they can collect their colours and start again with other questions that are suggested; and the pencil in the middle: students are going to discuss in groups about the topic. While they are talking, they cannot write any answer until they get an agreement. Each member of the group will have to write the idea they have achieved through their discussion.					
	The group has to talk in order to get an explanation about the meaning of each phase. At the end of the activity, we will create a short debate about each part of the scientific method in order to realize if students get a good idea about that.					
1.3	Activity 3: LET'S CREATE A LOGO! Each student has to invent a logo per each phase of the method and then, the group has to decide which one is the chosen to represent each phase of the scientific method of the group. This worksheet will be the first part of their portfolio.	20'	S, L, W, I	SG		

Materials for the session:

Activity 1→ https://drive.google.com/open?id=1EsYjddrEQA1FLiyntcRkDPyXYtMh8 Ay

Activity 2 and 3→ https://drive.google.com/open?id=1v4cwYPkKFkFiFDEMQmXUHanm5T 09Jk

SESSION 2: Famous scientists

Objectives of the session:

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	Recognizing important people (scientists) and events along the history and around the world	d.				
	 Content-obligatory language for the session: Past simple: Affirmative/Negative/Interrogative. Structures of opinion: I think that, I believe that, etc. Sharing information structures: What do you think? I consider / The information I've found is 					
	Activities include: Name and description; Assessment tool (if any); Material (including language support)	Ö	2			Q
2.1	Activity 1: REFRESH THE IDEAS! Students are going to watch a video in order to review the contents we worked on the previous lesson about scientific method. The teacher will create a communicative situation through the video they have just watched. Students are going to comment different things of the images that they have seen and they have to debate in groups if they agree with the aspects previously seen.	10'	S, L,	WG	Youtu be video	
2.2	Activity 2: PREPARING THE RESEARCH Students are going to be arranged in groups of 5-6 people. On the first part of the activity, each group is going to answer one of the 6 questions related to different scientists. They will look up for the information on the Internet. The teacher will give 5-7 minutes in order to talk and get the answer. Once they have finished, the groups have to change the paper given into another, and the next group will answer to the second question Therefore, all the groups have to give an answer to each question.	35'	R, S, W, I	SG, WG	Tablet s	

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	The questions that are going to be answered are: O When was he/she born? Where? O Where did he/she start to study? Who was the referent of him/her? O Why was he/she famous for? O Did he/she received an important award? O When did he/she die? Where? O Other important things (special events in his/her life). One student per group is going to read all the information about a scientist related to the questions given previously. When they say them, it could be possible that a debate will be opened to comment if they					
2.3	knew any of the scientist exposed. Activity 3: PLAY A KAHOOT At the end of the lesson and in order to know if they have get the main ideas of each scientist, they will answer a kahoot about it. Kahoot: https://create.kahoot.it/share/important-scientist/92e1b35a-dfac-45ec-8ca7-e657c0fb2694	15'	R, S, W, I	SG, WG	Kaho ot	

Materials for the session:

Activity 2→ <a href="https://drive.google.com/open?id=1FC6Gz6as0SCPAkpvKQ67UEso8C0RKAo-https://drive.google.com/open?id=1FC6Gz6as0SCPAkpvKQ67UEso8C0RKAo-https://drive.google.com/open?id=1FC6Gz6as0SCPAkpvKQ67UEso8C0RKAo-https://drive.google.com/open?id=1FC6Gz6as0SCPAkpvKQ67UEso8C0RKAo-https://drive.google.com/open?id=1FC6Gz6as0SCPAkpvKQ67UEso8C0RKAo-https://drive.google.com/open?id=1FC6Gz6as0SCPAkpvKQ67UEso8C0RKAo-https://drive.google.com/open?id=1FC6Gz6as0SCPAkpvKQ67UEso8C0RKAo-https://drive.google.com/open?id=1FC6Gz6as0SCPAkpvKQ67UEso8C0RKAo-https://drive.google.com/open?id=1FC6Gz6as0SCPAkpvKQ67UEso8C0RKAo-https://drive.google.com/open?id=1FC6Gz6as0SCPAkpvKQ67UEso8C0RKAo-https://drive.google.com/open?id=1FC6Gz6as0SCPAkpvKQ67UEso8C0RKAo-https://drive.google.com/open?id=1FC6Gz6as0SCPAkpvKQ67UEso8C0RKAo-https://drive.google.com/open?id=1FC6Gz6as0SCPAkpvKQ67UEso8C0RKAo-https://drive.google.com/open?id=1FC6Gz6as0SCPAkpvKQ67UEso8C0RKAo-https://drive.google.com/open?id=1FC6Gz6as0SCPAkpvKQ67UEso8C0RKAO-https://drive.google.com/open.google.com/o









SESSION 3: Let's discover our scientific research.

Objectives of the session:

- Recognising how a good question is posed.
- Distinguishing right and wrong questions.
- Promoting environmental awareness.

Content-obligatory language for the session:

- Structures of opinion: I think that, I believe that, etc.
- How to justify something using because.
- Explaining something when someone asks you to.

	Activities include: Name and description; Assessment tool (if any); Material (including language support)	Ö	***		O _k
3.1	 Activity 1: THINKING QUESTIONS We are going to start the class playing a game in order to explain how a question has to be created. Using the traffic lights, they are going to answer the following questions, individually, but if needed in pairs: A good question for a scientific method can be answered using yes or no (false). Using the question, you have to describe which problem we want to solve (true). A question can involve different topics that are related (true). In the question you have written, you don't have to do an experiment or an observation to test the hypothesis (false). At the end of the process, you have to share the results to the public answering the question (true). 	20'	R, S, L, I	T-S, S-S	

Template adapted from CLIL-SI 2015.











	After that, we are going to present 2 different questions to know if they have understood the difference between a good and a bad question: • Are animals dying in Australia? No • How can we solve a scientific problem? Yes					
3.2	Activity 2: INTRODUCING THE TOPIC The teacher will play a video in the class in order to let them discover the main topic of our project. Until 3:18: https://www.youtube.com/watch?v=pLX3DE0QDyg After that, the teacher will show them our driving question, which is: The planet is in trouble what can we do to save it? Students will explain what they think it is going to be about, and what do they already know about it.	10'	S, L,	T-S, WG	Youtu be video	
3.3	Activity 3: POSITIVE AND NEGATIVE HUMAN ACTIONS After watching the first part of the video, students will create a positive and negative list in the board describing human actions that contribute to collaborate or destroy the environment.	15'	S, L, W, I	WG		
3.4	Activity 4: IT'S TIME TO REACT! At the end of the lesson, the teacher will play the final part of the video in order to realize that there are negative actions but also positive actions to improve the environment. From 3:18 to the end: https://www.youtube.com/watch?v=pLX3DE0QDyg The whole group will comment if the actions that they have watched on the video are the ones that they have already said in the previous speaking part.	10'	S, L,	WG	Youtu be video	
3.5	Activity 5: CREATE A QUESTION	5'	L	T-S		











The teacher will explain to the students that they have to think about different landscapes that they have in their city and they have to posed themselves 3 different questions where they will be able to do an experiment and an observation through the scientific method related to the changes they can do in their environment in order to improve the ecosystem.

They will have to create a question taking into account the characteristics of what a good question is.

Materials for the session:

Activity 1→ https://drive.google.com/open?id=19ltRxFYEm YFC4lyal6lVo99CaUTXxnm

SESSION 4: First step, asking a question.

Objectives of the session:

- Sharing and reaching an agreement about their scientific research.
- Comparing and contrasting right or wrong questions.

Content-obligatory language for the session:

- Using question words: why, how, what, where, when.
- Sharing information structures: What do you think? I consider / The information I've found is...
- Summarizing the relevance of other members' contributions: To sum up, in conclusion, to summarize (all the group considers/thinks/believes that...)
- Conditional: would.

Activities

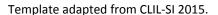
include: Name and description; Assessment tool (if any); Material (including language support)











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Activity 1: LET'S DECIDE THE QUESTION! The students will have designed the questions they were asked to in the previous lesson. This is a really important moment because they are going to decide the scientific method question in order to develop the project. Through the 1-2-4 technique, they will have to follow the steps of the 1-2-4 which are the following: 1. Individual part. The student has to write the questions that they have posed themselves, and rethink them in order to make sure they are right. 2. Peer part. They have to share and discuss why the questions are good or bad and why they should choose one question or not. 3. Group part. They have to share and discuss why the questions are good or bad and why they should choose one question or not. If they have some doubts, they can use tablets to help themselves as well as ask to the teacher to make sure if the question is good or bad. They will use the technique "Talking chips" in order to know that every student of the group has already participated in the decision of the question. At the end of the lesson, the leader of the group is going to say wich questions has his/her group chosen as well as explain the reasons why they have chosen it. This worksheet will be the second part of their portfolio.	45' + 15'	S, L, W, I	T-S, S-S, S-G, WG	











The teacher will assess the students through a direct observation using a rubric.

Materials for de session:

Activity 1→ https://drive.google.com/open?id=18Ukbw4XATGdhzbfTFE-P1i1xHQJdEwDO

SESSION 5: What's our hypothesis? Then, let's investigate

Objectives of the session:

- Deciding the hypothesis in cooperative groups.
- Starting to think about the planning of the experiment or observation in order to develop it in following days.

Content-obligatory language for the session:

- 1st conditional + will.
- Asking other people's opinions: What do you think? Why do you think that?
- Coming to agreements.

Activities

include: Name and description; Assessment tool (if any); Material (including language support)

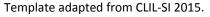












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	Activity 1: DECIDE THE HYPOTHESIS.					
	The idea of this activity is to debate and discuss about the information that they have looked for during the previous day. They will have to describe which thing they believe it is going to happen and give reasons about it, in order to create their group hypothesis. To do it, they will use the technique of talking chips (the students are going to discuss the hypothesis that they have created. In order to speak, each		R,	T-S, S-S, SG		T.
1.1	student must put his or her colour in a plastic cup. His or her classmates cannot interrupt and must be listening to what he or she is talking about. When he or she is finished, another student places his or her colour in the same plastic cup and he or she can continue the discussion. When everyone has spoken in the group, then they can collect their colours and decide their hypothesis as a group) to make sure that all the students have participated in the decision. At the end of the lesson, the teacher will have a rubric in order to assess the hypothesis and how they have done the research of the information.	20'	W, S, L,		Tabl ets	TA rubri C
1.2	Activity 2: PLANNING TO TEST AND OBSERVE The class will start playing a game. The teacher will write different statements related to different things that they will probably use in their projects. In addition, the teacher will give to each groups different words or sentences and they have to decide in which part each word belong to (observation, experimentation, results, thing that they want to know). They will have these previous titles on the board in order to paste the words related with these titles that the teacher has given previously. After that, depending on what the groups have decided (if they want to test, observe or both), the teacher will give per each group a grid. There, they will have to write different things that they will have to do in order to know which plan they will have to follow to do their project, completing a worksheet, that will be included in their portfolio.	40'	R, W, S, L, I	T-S, S-S, SG, WG		TA rubri c









Materials for de session:

Activity 1 and 2→ https://drive.google.com/open?id=1JsHs95ranpH9-eRBf5etKLaqiuecvt 6

SESSION 6: Write the conclusions and start the poster

Objectives of the session:

- Collecting the results that they have written during the previous days.
- Starting to create the poster.

Content-obligatory language for the session:

- Describing the conclusions that they have obtained: Our group considers / Our opinion is that...
- Showing respectfully that one idea, sentence or word is wrong.

	Activities include: Name and description; Assessment tool (if any); Material (including language support)				O _k
1.1	Activity 1: THE OBSERVING TIME HAS FINISHED NOW, WRITE THE CONCLUSIONS! In the portfolio, each group has the information that they have collected during the previous lessons. With all of these aspects, they will have to write in a worksheet the conclusions related to their hypothesis. The teacher will assess the conclusions that each group has written using a rubric.	20'	R, L, S, W, I	T-S, S-S, SG	TA rubri C

Template adapted from CLIL-SI 2015.











1.2	Activity 2: LET'S START THE POSTER! Keeping in mind all the process that each group has followed, they will start the project in order to show there all the phases of the scientific project. In this moment, they will discover that the poster will be digital! Using the Google Drive, they will think about the structure of the Poster and they will start organising the content of it.	20'	R, L, S, W, I	T-S, S-S, SG, WG	Co mp uter s	
1.3	Activity 3: DAFO In order to assess themselves, the students will do an activity called DAFO. There, they will have to analyse, think and reflect according to the following items, keeping in mind all the previous lessons: 1. Strengths. 2. Weaknesses. 3. Opportunities. 4. Threats.	20'	R, L, S, W, I	T-S, S-S, SG		SA

Materials for de session:

Activity 1 (only the diary's part)→ https://drive.google.com/open?id=1JsHs95ranpH9-eRBf5etKLagiuecvt 6

 $Activity \ 3 \rightarrow \underline{\text{https://drive.google.com/open?id=1I9SA0xyZBk3Yt73w3oq1ofEQDYAjImtU}}$

















