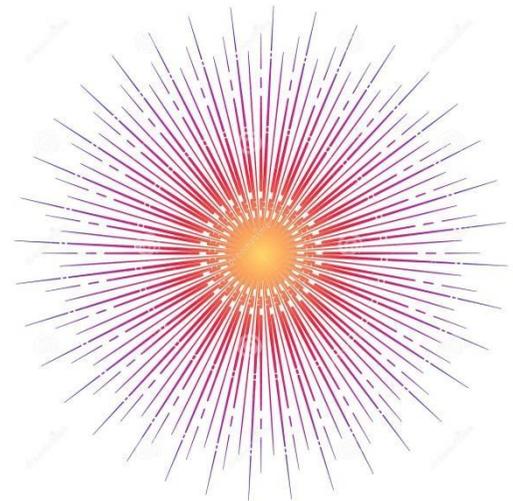


# Irradiating Science

**GEP2: 2020-21**



Institut Eugeni Xammar  
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IDENTIFICATION OF THE GEP PROJECT	
TITLE	Irradiating Science
AUTHORSHIP	Marta Pérez i Anna Relats
SCHOOL	INSTITUT EUGENI XAMMAR
STUDENTS' CEFR LEVEL (A1, A2...)	A1
GRADE	ESO 2
CONTENT AREA(S)	Science and Music
NUMBER OF SESSIONS (4, 6 OR 9)	6
TEACHER(S) INVOLVED	Adela Llorens (English teacher)
KEYWORDS	Nature of science Science and pseudoscience Podcast Elements of music Music editing tools

## OUR PROJECT

### INTRODUCTION

Radio L’Ametlla is broadcasting again. Our Town Hall, in collaboration with Serveis de Joventut, is offering students in INS Eugeni Xammar the possibility to participate in Radio L’Ametlla.

Due to the CoVID -19 situation that is keeping people (maybe some of your family members or friends) locked at home, we are eager to participate and be able to share what we are doing in High School thus bringing the school outside the classroom.

Our Proposal is that you create different podcasts or different “SCIENTIFIC PILLS” about any topics you feel like or you consider might interest your friends, family or neighbours. Being teachers for a while can be challenging, especially when you are teaching Science to people locked down in their homes.

### DRIVING QUESTION

How can you spread your scientific knowledge on the radio?

### FINAL PRODUCT:

A Radio podcast

LEARNING OBJECTIVES, ASSESSMENT CRITERIA AND DIMENSIONS		
LEARNING OBJECTIVES	ASSESSMENT CRITERIA	CURRICULUM AREAS AND DIMENSIONS
<p>1. Recognise, select and summarise the most relevant current science issues in our society.</p> <p>2. Justify why the chosen science topics are relevant to the general public and be able to communicate them orally.</p> <p>3. Record and edit an audio with music support.</p>	<p>1.1 They have to explain the main characteristics of a current science issue after doing some research. It can be explained in a simple way but using the appropriate language items (adequate terminology, linguistic structures, sequence connectors...)</p> <p><b>2.1</b> They have to give articulated reasons to talk about these science topics taking into account how it is connected and how it can affect our everyday life giving an accurate knowledge transfer.</p> <p><b>3.1.</b> They must use good pronunciation and also an appropriate intonation and rhythm of speech.</p> <p><b>3.2</b> They must make a good selection of music pieces to brighten the text and make the podcast more attractive.</p> <p><b>3.3.</b> They must broadcast a final product with a good sound edition quality.</p>	<p><b>Music</b></p> <p><b>Dimensió percepció i escolta</b>  <b>Competència 1.</b> Utilitzar estratègicament els elements dels llenguatges visual, musical i corporal per analitzar les produccions artístiques  <b>Competència 2.</b> Mostrar hàbits de percepció reflexiva i oberta de la realitat sonora i visual de l'entorn natural i cultural</p> <p><b>Dimensió expressió, interpretació i creació</b>  <b>Competència 6.</b> Experimentar i/o improvisar amb instruments i tècniques dels llenguatges artístics  <b>Competència 7.</b> Desenvolupar projectes artístics disciplinaris o transdisciplinaris tant personals com col·lectius</p> <p><b>Dimensió societat i cultura</b>  <b>Competència 8.</b> Valorar amb respecte i sentit crític les produccions artístiques en els seus contextos i funcions  <b>Competència 9.</b> Gaudir de les experiències i creacions artístiques com a font d'enriquiment personal i social  <b>Competència 10.</b> Fer ús del coneixement artístic i de les seves produccions com a mitjà de cohesió i d'acció prosocial</p>

**Science**

**Dimensió indagació de fenòmens naturals i de la vida quotidiana**

**Competència 4.** Identificar i resoldre problemes científics susceptibles de ser investigats en l'àmbit escolar, que impliquin el disseny, la realització i la comunicació d'investigacions experimentals

**Competència 5.** Resoldre problemes de la vida quotidiana aplicant el raonament científic

**Competència 6.** Reconèixer i aplicar els processos implicats en l'elaboració i validació del coneixement científic

**English language**

**Dimensió comprensió lectora**

**Competència 1.** Obtenir informació, interpretar i valorar el contingut de textos escrits de la vida quotidiana, dels mitjans de comunicació i acadèmics per comprendre'ls

**Dimensió comunicació oral**

**Competència 8.** Produir textos orals de tipologia diversa amb adequació, coherència, cohesió i correcció lingüística, emprant-hi els elements prosòdics i no verbals pertinents

**Competència 9.** Emprar estratègies d'interacció oral d'acord amb la situació comunicativa per iniciar, mantenir i acabar el discurs

## CONTENT (KNOWLEDGE AND SKILLS)

To complete this project, we will cover the following content

CONTENT-RELATED KNOWLEDGE	CONTENT-RELATED SKILLS
<p><b>Àmbit artístic</b>            CC2. Elements i patrons musicals.            CC9. Eines TAC de suport a l'activitat i la producció musical.            CC10. Art i societat.            CC11. Art i compromís            CCD10. Llenguatge audiovisual: imatge fixa, so i vídeo.            CCD22. Entorns de treball i aprenentatge col·laboratiu.</p> <p><b>Àmbit científic tecnològic</b>            CC16. Teories i fets experimentals. Controvèrsies científiques. Ciència i pseudociència.            CCD13. Fonts d'informació digital: selecció i valoració (cercadors web).            CCD27.Sostenibilitat: consum d'energia, despesa d'impressió, mesures d'estalvi, substitució de dispositius, etc</p>	<p><b>Music</b></p> <ul style="list-style-type: none"> <li>- Utilització estratègica d'elements musicals i digitals per a l'anàlisi i creació de produccions artístiques.</li> </ul> <p><b>Science</b></p> <ul style="list-style-type: none"> <li>- Disseny, la realització i la comunicació d'investigacions experimentals</li> <li>- Reconeixement i aplicació del raonament científic</li> </ul> <p><b>English language</b></p> <ul style="list-style-type: none"> <li>- Producció de textos orals amb adequació, coherència, cohesió i correcció lingüística.</li> <li>- Ús estratègies d'interacció oral d'acord amb la situació comunicativa per iniciar, mantenir i acabar el discurs</li> </ul>

## CONTENT-OBLIGATORY LANGUAGE

See the Foreign Language curriculum of the year you have chosen and select:

1. *Indispensable language items (terminology, academic language)*
2. *Discourse genres (narrative, argumentative, instructional, explanatory, etc.) and text types (a recipe, a news article, an ad, a slogan...)*
3. *Interactional language*

**REFERENCES**

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**COMMENTS (OPTIONAL)**

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

USEFUL ABBREVIATIONS YOU CAN USE						
<b>SKILLS</b>	<b>R: Reading</b>	<b>S: Speaking</b>	<b>L: Listening</b>	<b>W: Writing</b>	<b>I: Interaction</b>	
<b>INTERACTION</b>	<b>T-S: Teacher-Student</b>	<b>S-S: Student-Student</b>	<b>SG: Small Groups</b>	<b>WG: Whole Group</b>	<b>S-E: Student-Expert</b>	<b>S-W: Student-World</b>
<b>ASSESSMENT</b>	<b>PA: Peer Assessment</b>	<b>SA: Self-Assessment</b>	<b>TA: Teacher Assessment</b>	<b>AT: Assessment Tools</b>		

UNIT OVERVIEW						
SESSION	ACTIVITIES 	TIMING 	SKILLS 	INTERACTION 	ICT 	ASSESSMENT 
1	Find your partner	10'	S-I	T-S WG		--
	Radio programs	15'	R-I	SG		PA TA
	Do we all agree?	10'	I	WG		TA
	Planning our podcast I	20'	L	S-S		AT

SESSION	ACTIVITIES 	TIMING 	SKILLS 	INTERACTION 	ICT 	ASSESSMENT 
2	What is and isn't science?	15'	L-I	SG WG TS		PA
	The nature of science!	15'	I	SG WG TS		SA
	A science checklist.	15'	W-I	SG		--
	Checking the checklist. A cooperative reading.	10'	R-W-I	SG		AT
3	The "Is it science?" table	15'	R-W-I	WG TS		AT
	Let's do it!	20'	R-I	SG		--
	Our topic	20'	I	SG WG TS		PA
4	Doing some bibliographic research.	55'	R-W-I	SG		AT
5	Doing some bibliographic research.	20'	R-W-I	SG		AT
	Basic podcast structure. Planning our podcast II	35'	W-I	SG		TA

6	Basic functions of music	20'	R - W - I	SG		TA
	Where can we add music?	15'	R - I	SG		TA
	Basic music elements	20'	R - W - L - I	SG		TA
7	Designing your podcast sound	55'	R - W - L - I	SG		SA
8	Designing your podcast sound	25'	R - W - L - I	SG		SA
	Basic podcast structure. Planning our podcast III.	20'	W-I	SG		TA
	Recording your voice	10'	S - L - I	SG		SA
9	Recording your voice	20'	S - L - I	SG		SA
	Editing with Audacity I	35'	S - L - I	SG		SA
10	Editing with Audacity II	40'	S - L - I	SG		SA
	Final assessment	15''	L - W - I	WG		PA TA

## SESSION PLANNING

### SESSION 1: [Let's start](#)

**OBJECTIVES OF THE SESSION:** Students know the main goal of the project

**CONTENT-OBLIGATORY LANGUAGE FOR THE SESSION:** [Radio terminology](#); [Conversation strategies to discuss](#).

SESSION	ACTIVITIES					
1.1	<b>Find your partner.</b> The teacher gives each student a <a href="#">card</a> with a type of journalistic genre or a definition of some genre. Students need to search for the classmate who fits their card to find their project partner.	10'	S-I	T-S WG		--
1.2	<b>Radio programs</b> Students check the page <a href="http://cefire.edu.gva.es/pluginfile.php/194566/mod_resource/content/0/contenidos/103/1_tipos_de_programas.html">http://cefire.edu.gva.es/pluginfile.php/194566/mod_resource/content/0/contenidos/103/1_tipos_de_programas.html</a> about the type of radio programs. And choose the most suitable one for the project goal.	15'	R-I	SG		PA TA
1.3	<b>Do we all agree?</b> Whole group brainstorming to find out the most suitable way to spread the scientific knowledge on the radio.	10'	I	WG		TA
1.4	<b>Planning our podcast I</b> Students check two videos to learn more about podcast structure. <a href="https://www.youtube.com/watch?v=gZs1uY1d19Q">https://www.youtube.com/watch?v=gZs1uY1d19Q</a> <a href="https://www.youtube.com/watch?v=kYx9KpG3VTY">https://www.youtube.com/watch?v=kYx9KpG3VTY</a> Teachers give the checklist <a href="#">assessment tool</a> to let students be aware of their own learning process.	20'	L	S-S		<a href="#">AT</a>

SESSION 2: DOING SCIENCE

OBJECTIVES OF THE SESSION: Students review the nature of science.

CONTENT-OBLIGATORY LANGUAGE FOR THE SESSION: Scientific terminology; Conversation strategies to discuss

SESSION	ACTIVITIES					
2.1	<p><b>What is and isn't science?</b>                      Studentl watch 2 short videos and they have to discuss what is and is not science in small groups and the whole group.  <a href="https://youtu.be/hDQ8ggroeE4">https://youtu.be/hDQ8ggroeE4</a>  <a href="https://youtu.be/ui8X_TTFzl">https://youtu.be/ui8X_TTFzl</a></p>	15'	L-I	SG WG TS		PA
2.2	<p><b><u>The Nature of science!</u></b>                      In small groups, students match definition cards with the scientific specific word. Afterwards they write in order the steps of the scientific method matched before.</p>	15"	I	SG WG TS		SA
2.3	<p><b>A science Checklist.</b>                      Make a checklist that will provide a guide for what sorts of activities are encompassed by science.</p>	15'	W-I	SG		--
2.4	<p><b>Checking the checklist. <u>A cooperative reading.</u></b>                      Students read cooperatively the adapted article by SciEd.ucar.edu. Students Backgrounder. So they are able to review their checklist.</p>	10'	R-W-I	SG		<u>PA</u>

SESSION 3: [DOING SCIENCE](#)

OBJECTIVES OF THE SESSION: Students review the nature of science. Students choose a scientific trendy topic for the podcast.

CONTENT-OBLIGATORY LANGUAGE FOR THE SESSION: Scientific terminology; [Conversation strategies to discuss](#)

SESSION	ACTIVITIES					
3.1	<a href="#">The “Is it science?” table.</a> Students analyze and classify one chosen statement, following the “Is it science?” criteria (NOTTUS criteria). They have to justify their decision.	15'	R-W-I	SG		<a href="#">AT</a>
3.2	<b>Let's do it!</b> Students should find out scientific topics in the press.	20'	R-I	SG TS		--
3.3	<b>Our Topic.</b> Students choose one of the topics selected before and they have to justify if it is a scientific topic or not following the NOTTUS criteria.	20'	I	SG WG TS		PA

SESSION 4: WRITING SCIENCE

OBJECTIVES OF THE SESSION: Students should do bibliographic research and should be able to work on scientific information and summarize it.

CONTENT-OBLIGATORY LANGUAGE FOR THE SESSION: Scientific terminology; Exploratory Essay

SESSION	ACTIVITIES					
4.1	<p><b>Doing some bibliographic research.</b> Students search information about the chosen topic and write an exploratory essay.</p>	55'	R-W-I	SG		<a href="#">AT</a>

## SESSION 5: WRITING SCIENCE

**OBJECTIVES OF THE SESSION:** Students should do bibliographic research and should be able to work on scientific information and summarize it. Students do their first sketch of what their script will be.

**CONTENT-OBLIGATORY LANGUAGE FOR THE SESSION:** Scientific terminology; [Exploratory Essay](#)

SESSION	ACTIVITIES					
5.1	<b>Doing some bibliographic research.</b> Students search information about the chosen topic and write an exploratory essay.	20'	R-W-I	SG		<a href="#">AT</a>
5.2	<b>Basic podcast structure. Planning our podcast II</b> Students choose a radio genre taking into account their topic and the target audience. Finally they start the podcast script making their first attempt.	35'	W-I	SG		TA

**SESSION 6: [Searching for your podcast sound](#)**

**OBJECTIVES OF THE SESSION:** Students review the basic functions of music and its elements

**CONTENT-OBLIGATORY LANGUAGE FOR THE SESSION:** Conversation strategies to discuss

SESSION	ACTIVITIES					
6.1	<b>Basic functions of music</b> Students will form sentences with two pieces of phrases that describe the basic functions of music in a podcast and will think about what are the ones they will need to use.	20'	R - W - I	SG		TA
6.2	<b>Where can we add music?</b> Students will look at the structure of their podcast and will decide where to add music and why.	15'	R - I	SG		TA
6.3	<b>Basic music elements</b> Students will listen to music examples and will ask themselves if they are useful to their podcast by taking into account the basic Music Elements. <a href="#">Intro Music for podcast (27 tracks) Diana Butvinik</a>	20'	R - W - L - I	SG		TA

**SESSION 7: Designing your podcast sound**

**OBJECTIVES OF THE SESSION:** Students choose the music of their podcast

**CONTENT-OBLIGATORY LANGUAGE FOR THE SESSION:** Conversation strategies to discuss

SESSION	ACTIVITIES					
7.1	<b>Copyright music, royalty free Music and Creative Commons License</b> Reading activity	10'	R	SG		TA
7.2	<b>Jingle and other pieces of music</b> Students will create a jingle taking into account the table of exercise 4 in order to achieve your communication objective. For the rest of the pieces of music they will choose a free music and sound effects library from the webs given.	45'	W - L - I	SG		SA

**SESSION 8: [Designing your podcast sound and Recording your voice](#)**

**OBJECTIVES OF THE SESSION:** Students choose the music of their podcast and record their voices

**CONTENT-OBLIGATORY LANGUAGE FOR THE SESSION:** [Music edition terminology](#); Conversation strategies to discuss

SESSION	ACTIVITIES					
8.1	<b>Designing your podcast sound</b> Students will finish the previous day activity.	25'	R - W - L - I	SG		SA
8.2	<b>Basic podcast structure. Planning our podcast III.</b> Pupils have to go back to their podcast script and review the structure taking the music into consideration. It will be the final script.	20'	W-I	SG		TA
8.3	<b>Recording your voice</b> Students will record their voices and download the file to audacity	10'	S - L - I	SG		SA

## SESSION 9: Editing with Audacity I

**OBJECTIVES OF THE SESSION:** Students edit their podcast

**CONTENT-OBLIGATORY LANGUAGE FOR THE SESSION:** Music edition terminology; Conversation strategies to discuss

SESSION	ACTIVITIES					
9.1	<b>Recording your voice</b> Students will record their voices and download their file to audacity	20'	S - L - I	SG		SA
9.2	<b>Editing with Audacity I</b> Students will start editing their podcast.	35'	S - L - I	SG		SA

## SESSION 10: Editing with Audacity II and Final Assessment

OBJECTIVES OF THE SESSION: Students edit their podcast and assess their peers

CONTENT-OBLIGATORY LANGUAGE FOR THE SESSION: [Music terminology](#); Assessment strategies

SESSION	ACTIVITIES					
10.1	<b>Editing with Audacity II</b>	40'	S - L - I	SG		SA
10.2	<b>Final assessment</b> Students have to upload their podcast to <b>The Irradiating science padlet</b> . And taking the podcast rubric into account, they have to assess the rest of the groups. Finally, students have to send recordings to the teachers, uploading it to the Music classroom.	15'	L - W - I	WG		<a href="#">SA</a> <a href="#">PA</a> <a href="#">TA</a>

# IRRADIATING SCIENCE

GEP2: 2020-2021



## **Let's start!**

Radio L'Ametlla is broadcasting again!

We can collaborate and participate with the Radio doing something beneficial for the whole municipality.

The current COVID-19 situation has led to a major resurgence of scientific fake news. For this reason, we think it would be good to do something that can help the citizens of L'Ametlla to have a more critical scientific thinking. So, what would be better than participating and being able to share what we are doing in High School thus bringing the school outside the classroom?

### **How can you spread your scientific knowledge on the radio?**

Radio is the medium in which some genres of classic journalism reach their maximum expression. An example is the interview, the debate and the gathering. The adaptation of journalistic genres to radio is characterized by the expressive richness and the personal character that is incorporated into the transmitted message. The keys to good communication are concise, clear and direct content. In this way, there will be a greater attraction effect on the audience.

Radio genres could be classified as follows:

- Report
- Chronic
- Criticism
- Comment
- Editorial
- Interview
- Gathering
- Debate

1. **Find your partner!** The teacher has given each of you a card with a type of journalistic genre or a definition of some genre. You need to find the classmate who fits your card. He or she will be your project partner.

2. Check this page about the type of **radio programs** .

[http://cefire.edu.gva.es/pluginfile.php/194566/mod\\_resource/content/0/contenidos/103/1\\_tips\\_de\\_programas.html](http://cefire.edu.gva.es/pluginfile.php/194566/mod_resource/content/0/contenidos/103/1_tips_de_programas.html)

3. Write down the different types of radio programs you found. Select the most suitable one for our goal, and explain it. **Do we all agree?**

## **Planning our podcast I**

You'll need to decide on what kind of format will help you share your message best:

solocast, interview, narrative style,.....

Check this videos to learn more about podcast structure

[How to add structure](#)

[How to plan your podcast](#)

These are the sections we suggest in order to have a organized podcast episode:

- **Introduction.** Think about how you can convey your message and intrigue listeners by including a hook (something that grabs their attention)
- **Episode summary**
- **Guest introduction**
- **Transition**
- **Main topic**
- **Secondary topics**
- **Conclusion**

There's actually no single ideal podcast length. It depends on the type of show you're producing.

# Doing science!

Now that we know how to make science closer to the people outside our school, it is time to choose the topics we will be dealing with

## 1. *What do we consider science? What is and isn't science?*



Watch the videos below and answer the question:

**What is science?** <https://youtu.be/hDQ8ggroeE4>

**The Nature of science** [https://youtu.be/ui8X\\_TTFzI](https://youtu.be/ui8X_TTFzI)

- How can we know something is science or not?

## 2. **The Nature of science!** In small groups

- Match the cards given to find the correct definition for each word.
- Order the definitions and find out the steps of the scientific method.
- Individually write down all the steps, just name them.

3. **A science checklist!** Now, in small groups you can try to make a checklist that will provide a guide for what sorts of activities are encompassed by science. You should do it by consensus. Watching the videos again will help with the task.



Science checklist! How scientific is it?	
	
	
	
	
	
	
	

**4. Checking the checklist. A cooperative reading.** In small groups read and review the Students Backgrounder (Adapted from its original version by Iowa State Educators by Teri Eastburn Copyright 2015. University Corporation for Atmospheric Research SciEd.ucar.edu) regarding criteria to determine what is and isn't science.

**5. The "Is it science?" table.** Take a look at the criteria of the given table. Choose one of the statements on the board, you must analyze and classify it as science, protoscience, pseudoscience, or non-science

**The statement I classified is:**

.....

.....

.....

Explain how each of the criterion applies or does not apply to the statement you chose, then check the box at the bottom of the worksheet to classify the statement as either science, protoscience, pseudoscience or non-science. Share your criteria with your group and try to defend your point-of-view to obtain a mutually agreed upon classification if you are not in agreement.

CRITERIA	EXPLANATION
Natural	
Observable	
Testable	
Tentative	

Uncertain	
Social	

Based on the NOTTUS criteria, I believe my statement is:

\_\_\_science, \_\_\_non-science, \_\_\_protoscience, \_\_\_pseudoscience

Now we know that we need to find a good scientific topic for our podcast but it should also be trendy enough to catch and grab our audience attention.

**6. Let's do it!**

- Find out which scientific topics are on the press nowadays. Use the links below.
- Check the different science sections
- List the topics you choose on the table below

**Spanish and local press:**<https://www.prensaescrita.com/prensadigital.php>

**European Press:** <http://www.wrx.zen.co.uk/allnews.htm>

**Worldwide Press:**<https://www.thebigproject.co.uk/news/#.YDPm-j0IPZ>

Scientific topics on the press today	Paper where you found it

7. **Our topic.** Choose one of the topics. Which criteria have you used to choose your topic? Explain how each of the criteria applies or does not apply to the topic you chose.

CRITERIA	EXPLANATION
Natural	
Observable	
Testable	
Tentative	
Uncertain	
Social	

**Congratulations!** You have already fulfilled part of your task. Now you only have to turn your scientific topic into a podcast. **Shall we start?**

# Writing science!



You've chosen your podcast science topic! Regardless of what your podcast format is, it's likely that research will be a key element in sharing accurate, interesting and informative stories.

**1. Doing some bibliographic research.** Now you need to search information about the chosen topic. We recommend you to use google scholar instead of google.

First of all, it is necessary to ask yourself about your goal, it is, what do you want to convey to the audience?. Then you can search for the information.

Having found the information you must read it all and try to agree with your partners which are the most important statements of the topic.

Then you can fill the table below summarizing your topic. Remember how to write an argumental essay.

Use the checklist we give you to be sure that you are on the good way.

<b>Which is the topic chosen for the podcast?</b>
<b>Where did you find the information? (bibliography consulted)</b>
<ul style="list-style-type: none"><li>•</li><li>•</li><li>•</li><li>•</li><li>•</li><li>•</li><li>•</li></ul>

**You should summarize your topic as much as possible**

<b>Key words</b>
<b>What are the most important statements of our topic? (the main ideas)</b>
1.  2.  3.  4.
<b>What is your goal? (what do you want to convey to the audience?)</b>

**2. Basic podcast structure. Planning our podcast II.** Do you remember our first session? We learned about the radio genres and podcast structure. Now it is time to show what you learned.

First of all you need to choose your radio genre. Are you going to perform an interview? is it going to be an informal one or a technical one? Do you prefer the debate genre? To decide which one will suit you best, think that you are going to record a divulgatory program bearing in mind who your target audience is.

In the next sessions you will learn the importance of music to catch the audience's attention. So you need to make a first sketch of what your script will be. You should structure your podcast taking into account the chosen radio genre. Remember that

at least there needs to be an introduction, transitions, the main topic, and conclusions.

<b>Our target audience is....</b>	
<b>Our genre is.....</b>	
<b>It will be..... (description)</b>	

**First sketch** you can write it or draw it. But don't forget the main parts!



## Searching for your podcast sound

Music and sound are an effective way to help create an even more engaging podcast for your listeners. Using music in podcasts has the ability to define your podcast's tone, add a bit of character and make it instantly recognizable.

The right music will reinforce any ideas discussed but it also has the potential to undermine the strength of your content! Listeners' attention can be produced through the presence of music as well as its absence. The right balance must always be struck between them.

1. Form four sentences with the two pieces of phrases included in the chart. Then, match them with the **basic functions of music** in a podcast:

- Create atmosphere and give context
- Get the listener's attention
- Provide cohesion

Music can highlight certain moments in the development of the narrative	from one section to another by linking them with a continuous and coherent flow understandable by the listener.
Music, due to its capacity of suggestion, can act as a bridge	if we use music from the culture or period of what we are talking about, reinforcing the authenticity of the discourse.
Music helps to give a sense of continuity as it helps to smooth the transitions	either through sudden musical interruptions or through musical interruptions.
We can also contextualize the subject temporally or geographically	between the empirical exposition of the subject and the emotional involvement of the listener.

2. Now, think about your podcast and answer:

- a. What feature (qualifying adjective) represents your topic?
- b. What is the tone you want to convey to your listeners?
- c. Do you want to evoke any feeling? When? Which one?



## Where can we add Music?

As a podcaster, you have three options as to where to add music: at the beginning or at the end, to divide podcast segments and as background to an interview.

- Intro or Jingle / Outro: Your podcast intro is the most important audio element as it's the first thing that potential new listeners will hear and should attempt to communicate just what your podcast's about.
- Segment Divider: Music clips and sound effects are especially useful to provide structure. They help punctuate key moments and add extra emotion to your interviews.
- Background Music: Even if we don't realize it, part of the pleasure often comes from good podcast background music. Good background music is important when interviewing, telling a story, or when going into depth on a specific topic and will make our story more interesting.

### 3. Look at the structure of your podcast and decide:

- a. Where you want to add music and why.
- b. What part of the podcast do you want to underline and how.
- c. How you are going to connect each section of your podcast



If you need to, you can check what other podcasts in your category are doing. You have here some web pages where you can find them.

- A hombros de gigantes
- Cienciaes.com
- BBC Learning English (6 Minute English)
- Podcast intro examples Volume I
- Podcast El tabaquismo

### 4. Now listen to these examples and ask yourself if they are useful to your podcast and why or why not, and what would you change when creating your own jingle by taking into account the **basic Music Elements**. Use the chart below.

[Intro Music for podcast \(27 tracks\) Diana Butvinik](#)

MUSIC ELEMENTS	WHAT CAN THEY CONVEY
<b>TEMPO and RHYTHM</b>	<p>Tempo helps to speed up or slow down an action by causing excitement if it exceeds the heartbeat (60/80 beats per minute). It can also cause relaxation if tempo is slower.</p> <p>The rhythm of a piece of music, whether regular or irregular, can also contribute to a certain amount of stability or nervousness.</p> <p><i>Ostinato</i> (constant repetition of a rhythmic or melodic-rhythmic motif) causes an atmosphere of obsession.</p>
<b>MELODY AND HARMONY</b>	<p>Major mode brings a more dynamic and cheerful character while minor mode is more intimate and sad.</p> <p>Melodies pitch also conveys a certain atmosphere or character.</p>
<b>INTENSITY</b>	<p>A loud volume of sound causes an effect of fullness or power while soft music transmits intimacy or weakness.</p>
<b>TIMBRE</b>	<p>Soft sounds keep us in a placid state but shrill "colors" cause distressing sensations, tension and irritation.</p> <p>Electrical instruments and / or synthesizers transport us to a "technological or digital" world or to a futuristic space-time place.</p>

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## Designing your podcast sound



Now, it's time to choose the music for your podcast, but not all of them are appropriate.

Do not use music which has a **copyright**. If it's not your own music and you haven't asked for permission from the owners. This sort of behavior comes with risks of the legal kind!

Be sure to utilize **royalty free music** (versus copyrighted music) or you run the risk of your podcast being removed from listening apps. Somewhere in the middle of these options, is **Creative Commons license**. This is music which can be used under certain conditions when not for commercial purposes.

5. Taking into account the table of exercise 4 in order to achieve your communication objective, create a jingle using one of the free apps suggested by your teacher (LMMS, Soundation... ).

For The rest of the pieces of music (segment divider and background music) you can use the free music and sound effects library from the webs given below.

Finally, fill in the chart with the options chosen.

<https://studio.youtube.com/>

<https://elements.envato.com>

<https://incompetech.com/music/>

<http://xtec.gencat.cat/ca/recursos/media/radio/biblioteca/>

<https://musopen.org/>

<http://dig.ccmixer.org/ç>

<https://patrickdearteaga.com/es/index-es/>

<https://freemusicarchive.org/>

Where to add music	Function of the music	Main features	Title and link to the source	Length

- 6. Basic podcast structure. Planning our podcast III.** Get back to your podcast script and review the structure of your podcast taking the music into consideration. It will be your definitive stretch.

# Recording and Editing with Audacity

In this session you will finally record your podcast. Follow the Tips below to help you:



- Do not panic. Nobody likes to hear his or her own voice.
- Do not rush. A bit of organization will surely improve your final product.
- Find the best equipment you can to improve the quality of your podcast.
- Avoid reciting a monologue in front of your microphone.
- When you finish , upload your audio file to your laptop and convert it to MP3 format.

## WEB RESOURCES

Software

[Download Audacity software](#)

[How to use audacity](#)

Webs to convert any audio format to mp3

<https://online-audio-converter.com/>

<https://www.y2mate.com>

1. **Final assessment.** Congratulations, you have arrived at the end of this project. Only one step to go!

You have to upload your podcast to **The Irradiating science padlet**.

Then we need you to help your peers. So you must listen to the other groups' podcasts, and taking the podcast rubric into account, you have to assess the rest of the groups.

Remember that assessment helps others to improve their work.

Finally, check peer assessment inputs to improve your recording. As soon as you are completely convinced that the final recording is the best version of your podcast, send it to your teachers, uploading it to the Music classroom. And your teacher will be in charge of sending it to Radio L'Ametlla.



**GENERALITAT DE CATALUNYA**  
**Departament d'Ensenyament**  
Institut Eugeni Xammar



## **SCAFFOLDING AND TOOLS ASSESSMENT**

## **Report**

It is a planned documentary work, and its purpose is to inform. Despite this, it may include personal opinions of the author. For this reason, they tend to be elaborated with certain subjective criteria of the researcher, although it includes a great diversity of collaborators or informants to write it. This fact contributes to the fact that it is broadcast on many occasions in order to create a position in the viewer regarding a certain topic in particular. Usually it is given by a journalist who is made about a fact or on any subject which is usually accompanied by images and photos, etc. It is published in the press or broadcast on television or radio.

In this genre, events of public interest are explained, with words, images, and videos, from a current perspective, and using accessible and popular language for the widest and most diverse audience possible.

They are longer and more complete than the simple development of the news that occurs, and they are often accompanied by interviews. As in the news genre, it requires contrasting several sources: the more sources are consulted, the greater credibility the journalistic work will have. If the minimum for a story is three sources, it could be expected that more than three will always be consulted.

## **Chronic**

It is a literary genre included in historiography, which consists of the compilation of historical events narrated in chronological order.

The events are narrated according to the temporal order in which they occurred, often by eyewitnesses or contemporaries, either in the first or third person.

In this genre a simple, direct, very personal language is used and admits a literary language with the repetitive use of adjectives to emphasize the descriptions. It uses action verbs and presents space and time references. It carries a certain temporal distancing from what is called historical writings.

## **Criticism**

Judgment of personal and subjective value that is made on the qualities and defects of a human production that can be literary, plastic, musical or journalistic, among others.

This genre is made by specialists who regularly give opinions, judge or interpret works or actions from various professional fields, be it artistic, philosophical, political or social, and typically publish their observations, often in magazines and newspapers. Thus there are specialists in fine arts, literary criticism, music, television, film and theater, the people who make gastronomic criticism or those responsible for scientific criticism, to name a few of the most representative.

## **Comment**

It is an appreciation or writing about anything put into analysis.

## **Editorial**

It consists of an expository-argumentative text, usually unsigned, that explains, assesses and judges a news event of special importance. It is a collective opinion, an institutional judgment formulated in accordance with the ideological line of the medium. In other words, it is an opinion or comment that the editor makes about the news, and written according to the experiences of the editor or editors.

It is a traditional newspaper text and usually appears in a prominent place within the opinion section of a media outlet. Although it does not bear a signature, since it summarizes a collective opinion, there are journalists in charge of writing it, the so-called editors. In many cases, it is written by the editor of the newspaper.

## **Interview**

It is a dialogue between two or more people: the interviewer asks questions and the interviewee answers them. It is not by chance, but it is an interested dialogue with a prior agreement and interests and expectations on the part of both the interviewer and the interviewee.

It is the most public of private conversations. It works with all the rules of private dialogue, but it is built for the public realm. The interviewee knows that he is exposed to the opinion of the people. On the other hand, it is not a free dialogue with two subjects. It is a radio conversation, that is, centered on one of the interlocutors, and in which one has the right to ask and the other to be heard.

## **Gathering**

The gathering is an informal and periodic meeting of people interested in a subject—from politics and sports to any branch of the arts, science or philosophy—to debate and inform themselves, or share and contrast initiatives, news, knowledge and opinions.

## **Debate**

It is the result of an act of communication in which two or more people give their opinion about one or more topics and in which each one presents their ideas and defends their opinions and interests. Once all the arguments presented by each of the people, the intermediary must reach a fixed agreement.

The pre-established format is the main way to do it, and it should have a specific topic to discuss, and a neutral opinion moderator to help control the pace of the debate.



Observation

*Act of observing some type of natural phenomena.*



Question

*Sentence or phrase stated in such a way that it could be investigated scientifically*



Hypothesis

*It is a suggested testable explanation for a phenomena*



Experiment

*A planned set of actions that should be followed to test the hypothesis*



Data analysis or results

*The act of analyzing the collected data and representing them in graphs and tables*



Conclusion

*The opinion you have after considering all the information collected. It always addressed the original hypothesis.*

## USEFUL TIPS for Discussing Issues and Giving Opinions

Avoid using informal language such as contractions and slang.

<p><b>To show CAUSE:</b> One reason for...is... Because of... Is caused by... Results from...</p>	<p><b>To COMPARE:</b> Both Also/too As well as...as not only...but also more/less than..</p>
<p><b>To show RESULTS:</b> One result is.. As a result (of)... Therefore, Consequently,</p>	<p><b>To CONTRAST:</b> In contrast to.. On the other hand.. On the contrary, However Yet Although Even though In spite of+ noun Despite + sentence</p>
<p><b>To LIST different aspects:</b> One aspect of the issue is... Another difference/cause/ solution.. is.. First, ... Second,... Third,...</p>	<p><b>Expressing OPINIONS:</b> As I see it, (+your opinion) I feel, believe, think (that)..+ opinion It seems to me... I strongly believe... I must admit.... As far as I'm concerned, +opinion Let's remember/not forget... Personally, + your opinion. To be honest, + opinion.</p>

## **An Expository Essay....**

shows a balanced and well-organized view of the topic, providing a clear and focused explanation.

It is essential to organize and convey information clearly using 3 paragraphs:

- **Introduction:** State your topic and provide some general background,
- **Body:** Present the details
- **Conclusion:** Summarize the information presented above.

Use [Linking words](#) to develop a logical flow of ideas and adding cohesion to your essay.

## **Editing Terminology Verbs Scaffolding**

File (verb and noun)

Record

Download

Convert

Import

Export

Edit

Copy

Paste

Cut

Fade in

Fade out

<b>Check your work...</b>		
		
We interact with classmates in English		
We use the conversation strategies to discuss given		
We use specific terminology		
We make the decisions together, we have chosen the subject by consensus		
We work cooperatively and we all participate		
We are working autonomously		
We are clear about what our goal is		
We do all agree on this goal		
The topic chosen follows the NOTUS criteria		
We searched for information on the subject in 4 or more bibliographic resources.		
We read newspaper and scientific articles on the subject		
We write together the main ideas and the keywords of the topic		
The essay of the topic consists of 3 well-differentiated parts		
We use linking words in our writing		

We use specific terminology		
We plan and organize the podcast together		
The podcast is recorded and edited		
We listen and assess the podcasts' mates following the given rubric		
We improve our podcast with our peers opinions		

### Irradiating Science Podcast Rubric PEER ASSESSMENT

	<b>Excellent</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>
<b>Theme</b>	The message is extremely clear transmitted to the listeners	The message is well transmitted to the listeners	The message is not clear	There is no message
<b>Synthesis</b>	The recording includes a thorough and clear explanation of the topic and provides relevant information	The recording includes a satisfactory explanation of the topic	The recording includes a poor explanation of the topic	The recording includes a very explanation of the topic
<b>Structure</b>	It has a definite and coherent structure increasing interest as podcast is developing	It has a definite structure including introduction, main topic and conclusion	It has a not well defined or disorganised structure	It doesn't have any structure or it is imperceptible.
<b>Voice and pronunciation</b>	Intensity, articulation, rhythm of speech, intonation are good and clear.	3 out of 4 are good (Intensity, articulation, rhythm of speech, intonation)	2 out of 4 are good (Intensity, articulation, rhythm of speech, intonation)	Very difficult to understand
<b>Music</b>	Music structures the speech, provides expression and helps to engage listeners.	Music structures the speech	There is no coherence in the use of music	Music obstructs the communication of the message
<b>Edition</b>	Good quality of sound, voice always audible, good use of fade in/fade out	Good quality of sound, voice always audible, irregular use of fade in/fade out	Good quality of sound, voice not always audible, irregular use of fade in/fade out	Bad quality of sound, voice most of the time inaudible, no fade in/out

### Irradiating Science Podcast Rubric

	<b>Excellent</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>
<b>Participation</b>	All students in the group play an important role in the podcast project	All students in the group play a role (unequal) in the podcast project	Some students don't work	Only one student does most of it
<b>Theme</b>	The message is extremely clear transmitted to the listeners	The message is well transmitted to the listeners	The message is not clear	There is no message
<b>Content</b>	Relevant data from fiable sources. Based on the NOTTUS criteria Well reasoned and justified	Relevant data from fiable sources. Based on the NOTTUS criteria. Justified	Only data. Based on the NOTTUS criteria.	Poor data not based on the NOTUS Criteria.
<b>Synthesis</b>	The recording includes a thorough and clear explanation of the topic and provides relevant information	The recording includes a satisfactory explanation of the topic	The recording includes a poor explanation of the topic	The recording includes a very explanation of the topic
<b>Structure</b>	It has a definite and coherent structure increasing interest as podcast is developing	It has a definite structure including introduction, main topic and conclusion	It has a not well defined or disorganised structure	It doesn't have any structure or it is imperceptible.
<b>Language</b>	Appropriate and efficient vocabulary and rich sentences.	Appropriate and efficient vocabulary	Good vocabulary. Students manage to communicate but they make some mistakes	Poor vocabulary. Many mistakes
<b>Voice and pronunciation</b>	Intensity, articulation, rhythm of speech, intonation are good and clear.	3 out of 4 are good (Intensity, articulation, rhythm of speech, intonation)	2 out of 4 are good (Intensity, articulation, rhythm of speech, intonation)	Very difficult to understand
<b>Music</b>	Music structures the speech, provides expression and helps to engage listeners.	Music structures the speech	There is no coherence in the use of music	Music obstructs the communication of the message
<b>Edition</b>	Good quality of sound, voice always audible, good use of fade in/fade out	Good quality of sound, voice always audible, irregular use of fade in/fade out	Good quality of sound, voice not always audible, irregular use of fade in/fade out	Bad quality of sound, voice most of the time inaudible, no fade in/out

