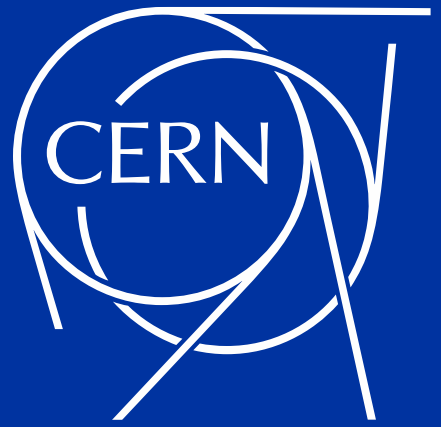


Concept Maps

International Teacher Weeks Programme 2023

Milena Vujanović

07/08/2023

CERN DD/OC

Information Management: A Proposal

Tim Berners-Lee, CERN/DD

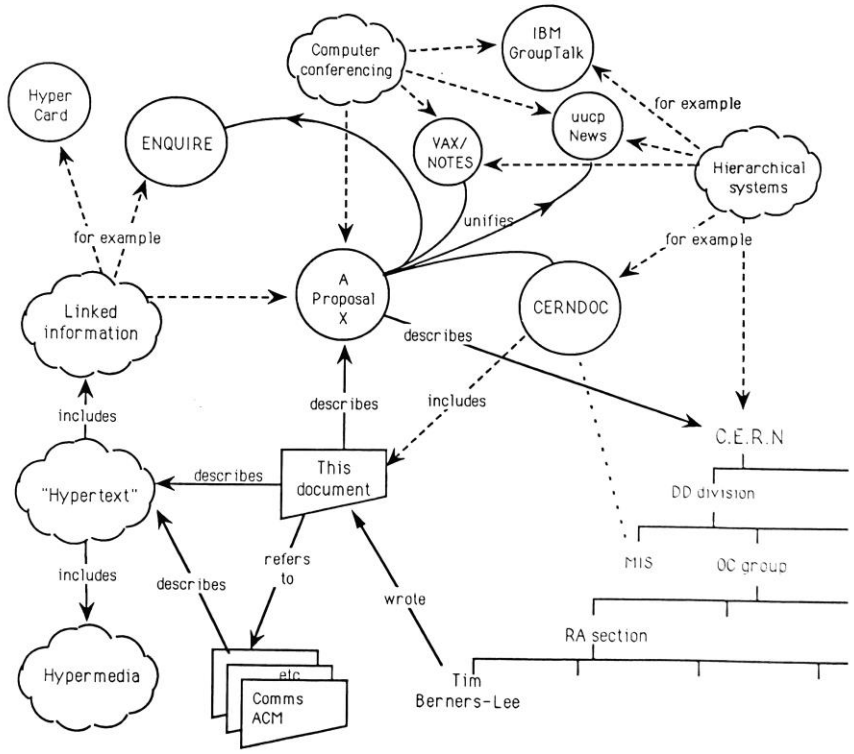
March 1989

Information Management: A Proposal

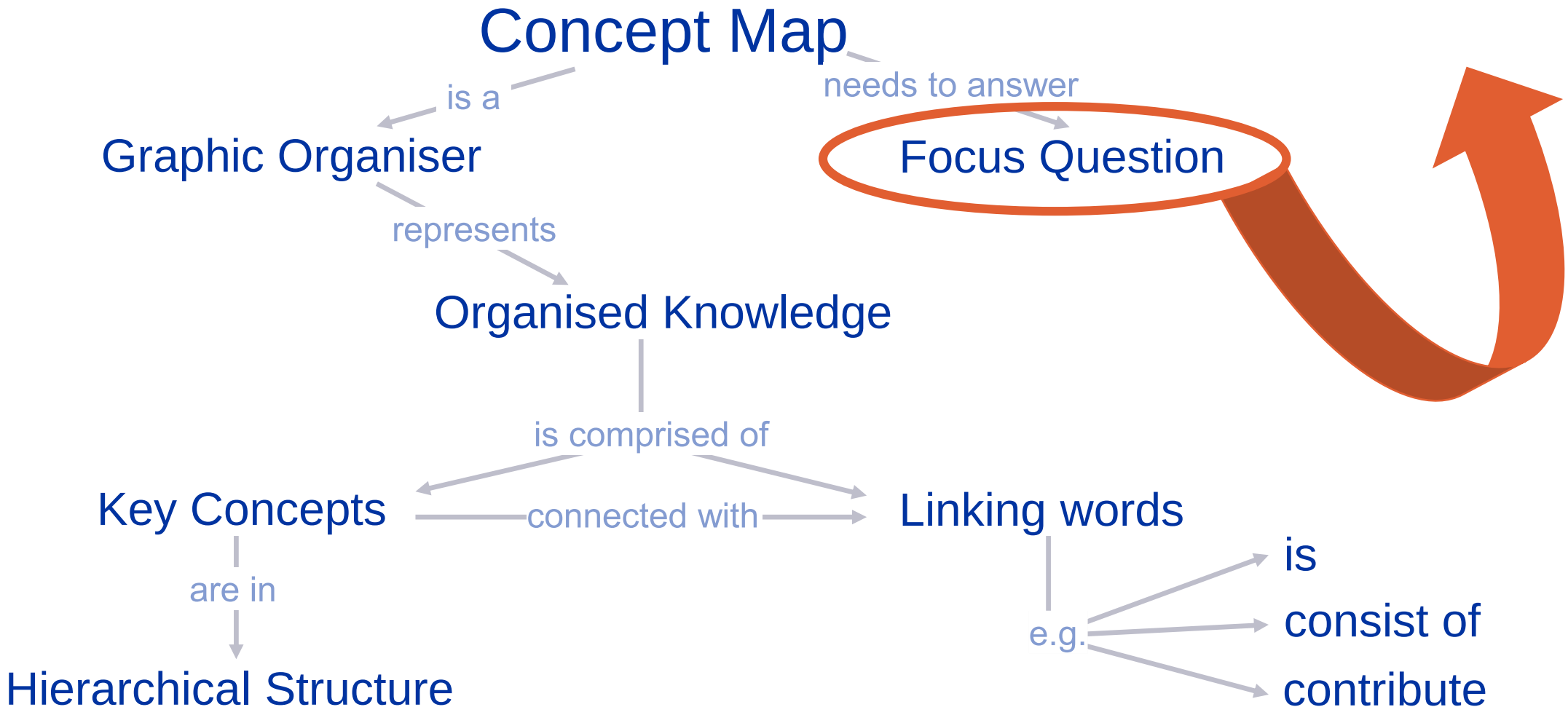
Abstract

This proposal concerns the management of general information about accelerators and experiments at CERN. It discusses the problems of loss of information about complex evolving systems and derives a solution based on a distributed hypertext sytstem.

Keywords: Hypertext, Computer conferencing, Document retrieval, Information management, Project control



What do you know about concept maps?



Why do we do this?

- It is benefitial to **you** because:
  - ➢ it will help you organise your knoweldge!
- It is benefitial to **me** because:
  - ➢ I get a PhD! ☺

Constructing Concept Maps

1. Focus question → What do you know about Hogwarts?

2. Stop and think → Chose a starting concept and 2 – 5 key concepts

1. What do you know about Hogwarts?

School for magic

Students

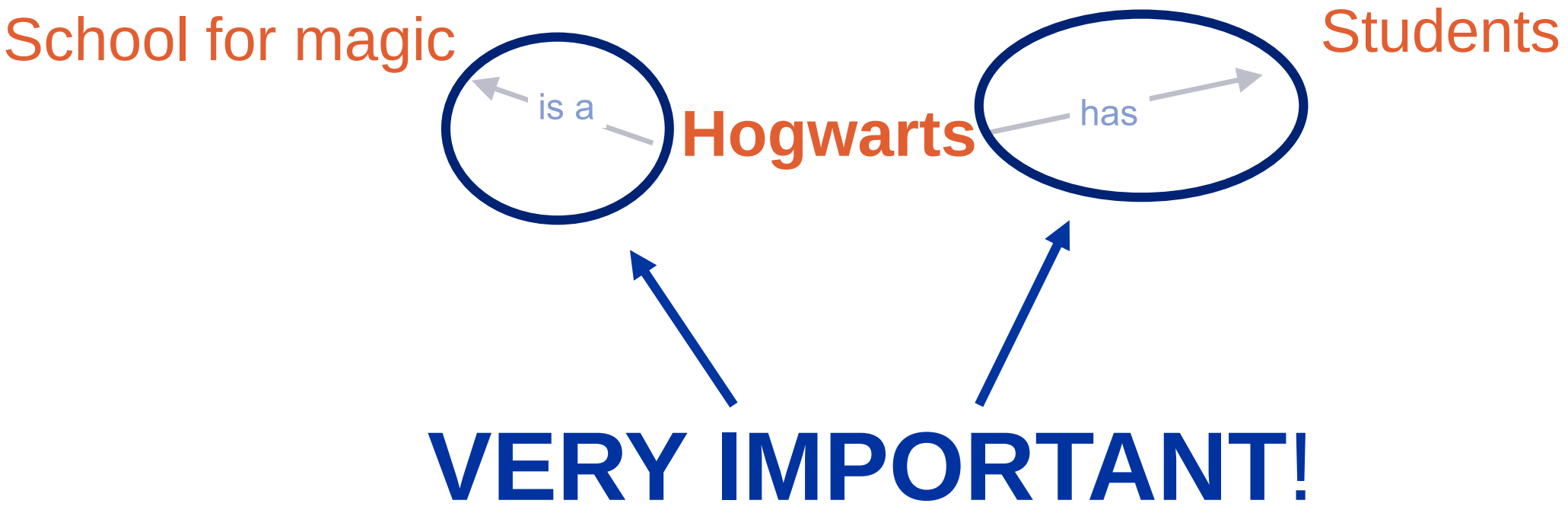
Hogwarts

1. What do you know about Hogwarts?
2. 2-5 key concepts
3. Link and use ARROWS

School for magic

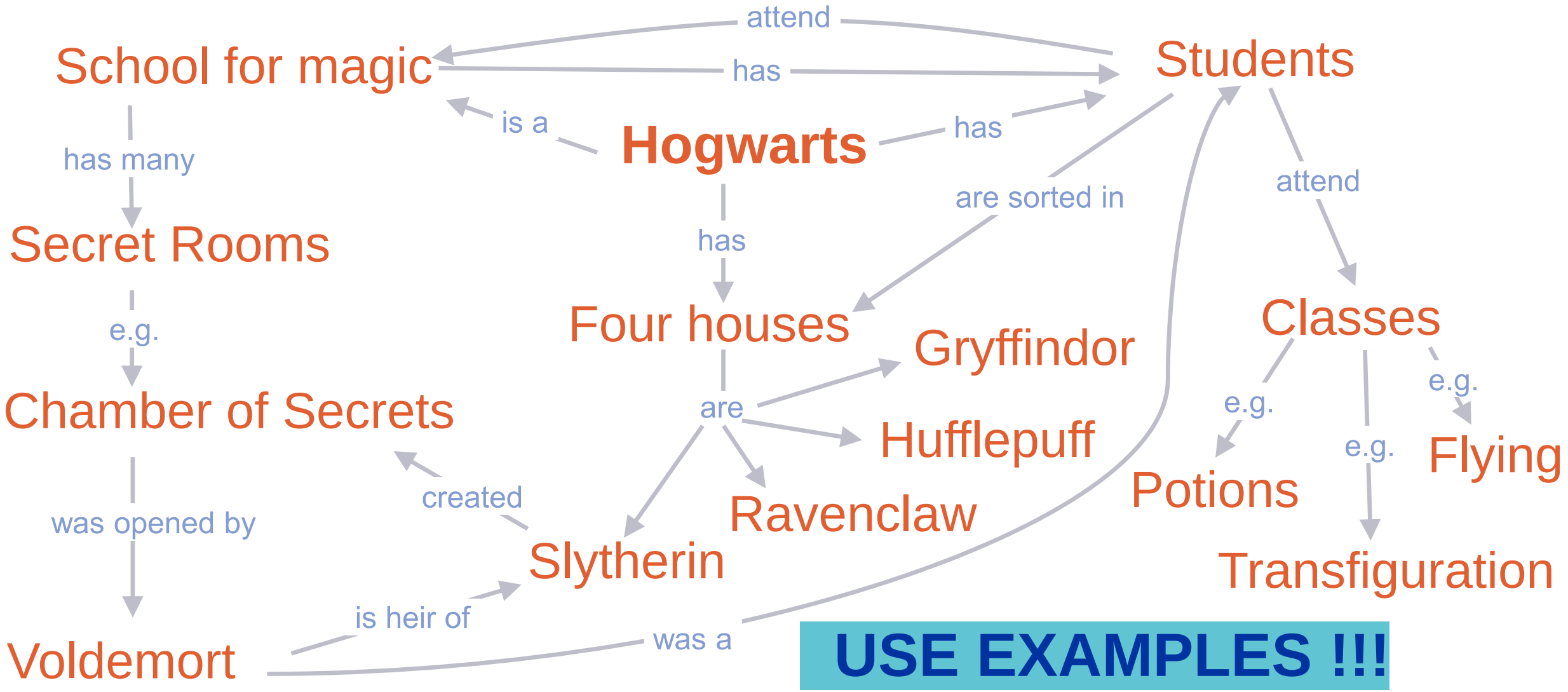
Students

1. What do you know about Hogwarts?
2. 2-5 key concepts
3. Link and use ARROWS and LINKING WORDS !!!



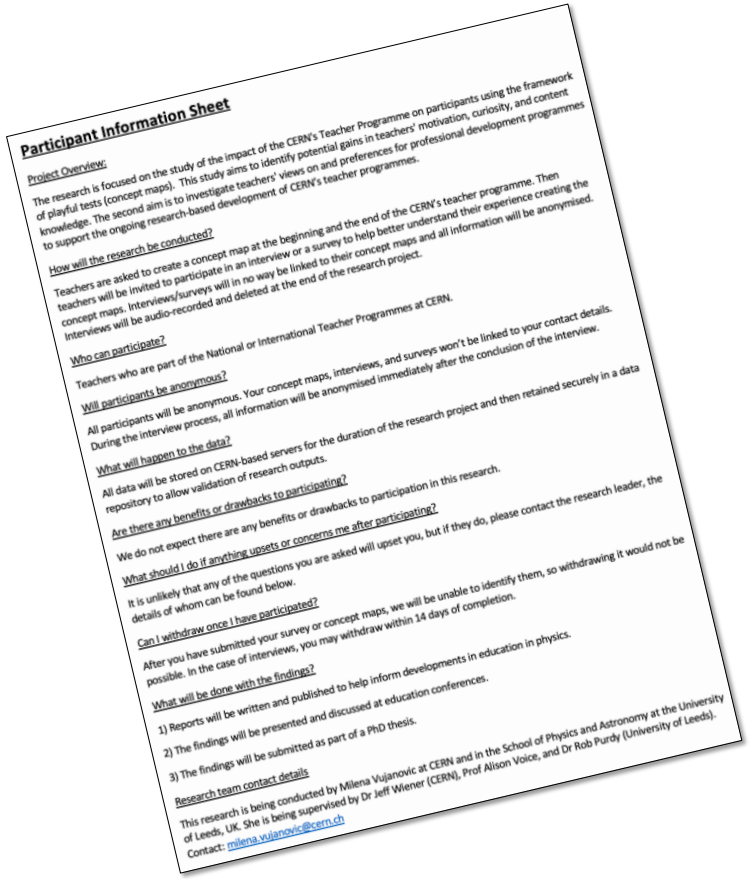
1. What do you know about Hogwarts?
2. 2-5 key concepts
3. Link and use ARROWS and LINKING WORDS !!!

SECRET TIP !!!



USE EXAMPLES !!!

Now, it is your turn!



Participant Information Sheet

Project Overview:

The research is focused on the study of the impact of the CERN's Teacher Programme on participants using the framework of playful tests (concept maps). This study aims to identify potential gains in teachers' motivation, curiosity, and content knowledge. The second aim is to investigate teachers' views on and preferences for professional development programmes to support the ongoing research-based development of CERN's teacher programmes.

How will the research be conducted?

Teachers are asked to create a concept map at the beginning and the end of the CERN's teacher programme. Then teachers will be invited to participate in an interview or a survey to help better understand their experience creating the concept maps. Interviews/surveys will in no way be linked to their concept maps and all information will be anonymised. Interviews will be audio-recorded and deleted at the end of the research project.

Who can participate?

Teachers who are part of the National or International Teacher Programmes at CERN.

Will participants be anonymous?

All participants will be anonymous. Your concept maps, interviews, and surveys won't be linked to your contact details. During the interview process, all information will be anonymised immediately after the conclusion of the interview.

What will happen to the data?

All data will be stored on CERN-based servers for the duration of the research project and then retained securely in a data repository to allow validation of research outputs.

Are there any benefits or drawbacks to participating?

We do not expect there are any benefits or drawbacks to participation in this research.

What should I do if anything upsets or concerns me after participating?

It is unlikely that any of the questions you are asked will upset you, but if they do, please contact the research leader, the details of whom can be found below.

Can I withdraw once I have participated?

After you have submitted your survey or concept maps, we will be unable to identify them, so withdrawing it would not be possible. In the case of interviews, you may withdraw within 14 days of completion.

What will be done with the findings?

1) Reports will be written and published to help inform developments in education in physics.

2) The findings will be presented and discussed at education conferences.

3) The findings will be submitted as part of a PhD thesis.

Research team contact details

This research is being conducted by Milena Vujanovic at CERN and in the School of Physics and Astronomy at the University of Leeds, UK. She is being supervised by Dr Jeff Wiener (CERN), Prof Alison Voice, and Dr Rob Purdy (University of Leeds).
Contact: milena.vujanovic@cern.ch

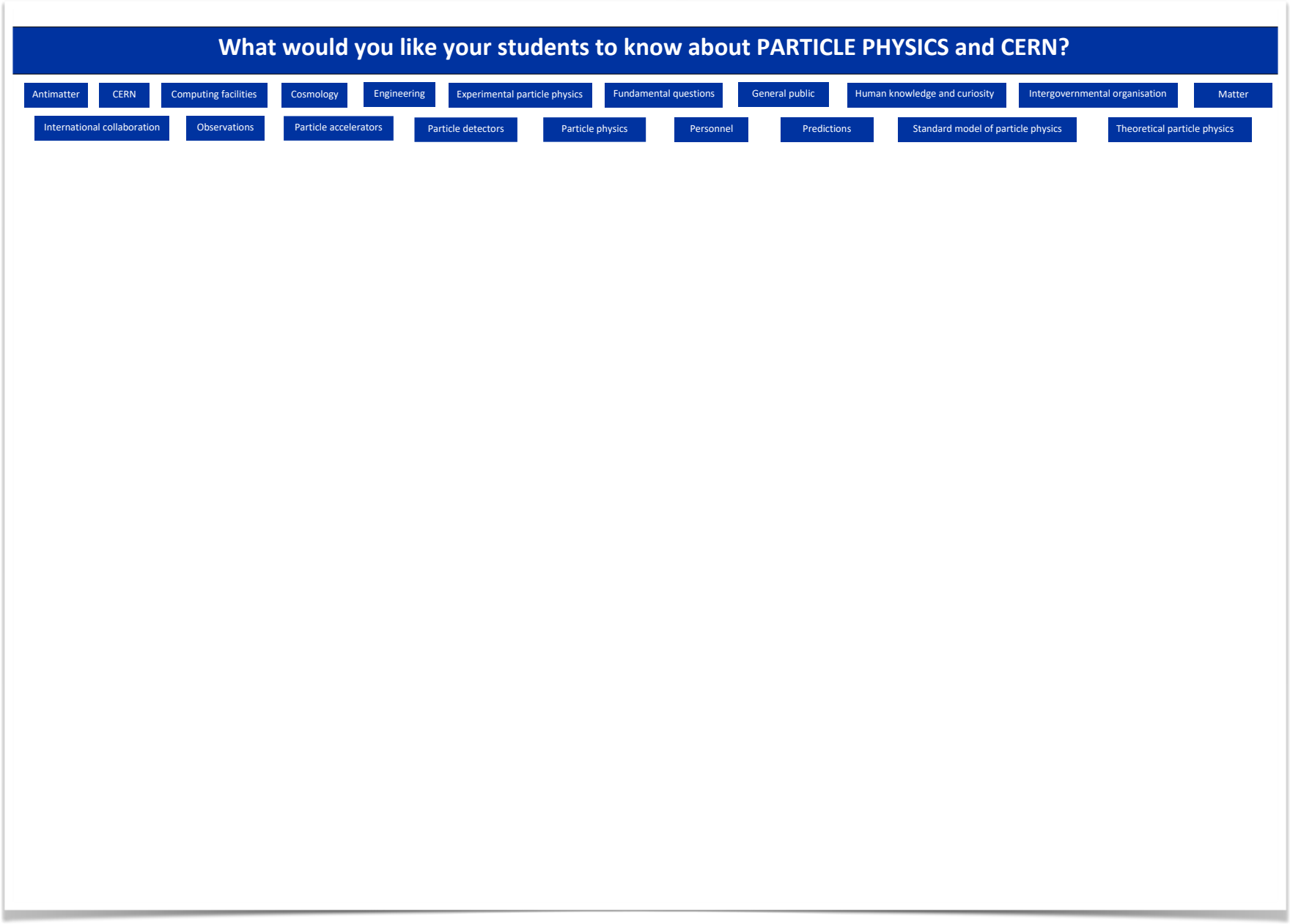
1. PERSONAL CODE		
First letter of your first name	(e.g. Colin = C)	
Second letter of your mother's name	(e.g. Kathy = A)	
Third letter of your mother's name	(e.g. Kathy = T)	
Last digit of your year of birth	(e.g. 1963 = 3)	

2. How would you rate your English skills?		
	Not so good	☐
	Good	☐
	Excellent	☐

3. Have you known about concept maps before today?		
	Yes, I used them.	☐
	Yes, I heard about them.	☐
	No, I never heard about them.	☐

I confirm that I have understood the research project and have been given the opportunity to ask questions about the project.	☐
I understand that my participation in the research project is voluntary.	☐
I understand that members of the research team may have access to my responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the work produced as a result of this research.	☐
I understand that the data collected from me via interviews will be recorded. Interviews will be transcribed and anonymised, and the recording deleted. The anonymised transcription may be stored and used in future relevant research.	☐
I agree to all the above statements and consent to take part in the described research project.	☐
Date:	
Signature:	

What would you like your students to know about PARTICLE PHYSICS and CERN?


What would you like your students to know about PARTICLE PHYSICS and CERN?
Antimatter
CERN
Computing facilities
Cosmology
Engineering
Experimental particle physics
Fundamental questions
General public
Human knowledge and curiosity
Intergovernmental organisation
Matter
International collaboration
Observations
Particle accelerators
Particle detectors
Particle physics
Personnel
Predictions
Standard model of particle physics
Theoretical particle physics

What would you like your students to know about PARTICLE PHYSICS and CERN?

1. Stop and think about the focus question
2. Chose your starting concept
3. Then chose 2 – 5 key concepts to start your m
4. Connect concepts with arrowed lines and linking words
5. Expand

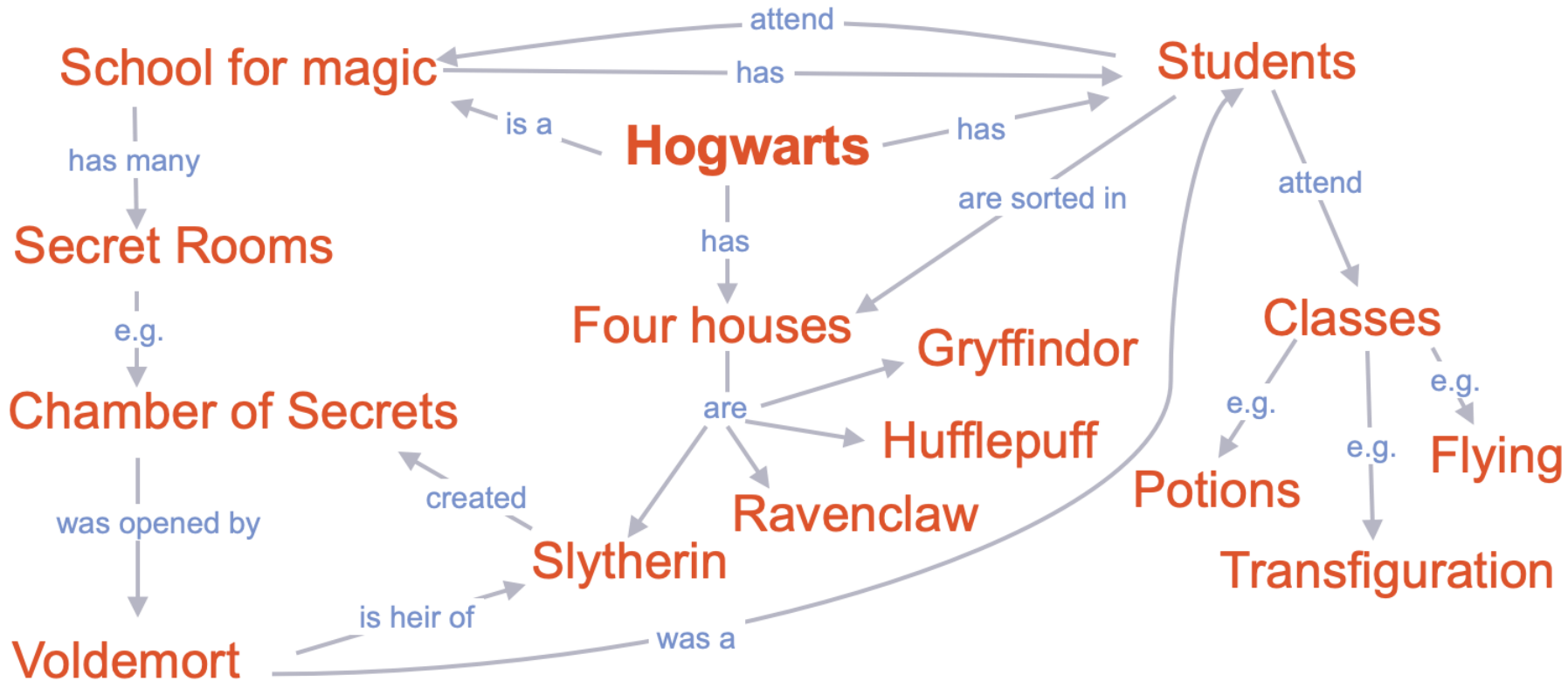
➢15 minutes

QUESTIONS?

Time to write the code and sign the consent form!

What would you like your students to know about PARTICLE PHYSICS and CERN?

1. Stop and think about the focus question
2. Chose your starting concept
3. Then chose 2 – 5 key concepts to start your map
4. Connect concepts with arrowed lines and linking words
5. Expand



Pens down!
Let’s talk! ☺

Thank you for your participation!

milena.vujanovic@cern.ch