Thinking

This module gives teachers and pupils tools to reflect about the process of thinking, the meaning of concepts, language.

- 10-14
- 17 x 60 min.
- board/flip chart; mounting material (magnets / tape / push pins); colored A4 printing paper;
- **Communication** **Dialogue** **Language**

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Introduction

Background information and didactical perspective

Philosophy for Children (P4C) is an approach that was developed by Professor Matthew Lipman, who was influenced by educational psychologists and philosophers such as Vygotsky, Piaget and Dewey as well as by the tradition of Socratic dialogue. P4C builds on higher order thinking (critical, creative and caring thinking), inquiring, reasoning, listening and dialogical skills. Children are encouraged to create their own philosophical questions. The facilitator supports children in their own thinking, reasoning and inquiring, as well as in building on each other's ideas in a dialogue. In P4C, the facilitator fosters student-led discussions on philosophical questions. The role of the facilitator is crucial to ensuring quality dialogue and progress, as well as integration within the curriculum. It is well documented that P4C has an impact on children's cognitive, personal, social and emotional development. P4C encourages children as well as young adults to think for themselves and develop dialogical skills.

Learning outcomes

Competencies

Critical thinking, reasoning skills, inquiry skills, creative skills, dialogical skills

Lesson plan

Abbreviations:

- A = Activity
- D = Discussion
- GW = Group work
- IW = Individual work
- HW = Homework
- PW = Partnerwork
- PTS = Previous Teacher's Study
- PO = Pupils opinions
- PP = Pupil's presentations
- TP = Teacher's presentation

Lesson No 1 : Thinking

Phase	Content	Media, Material
Introduction (5 min.) PTS TP	**Previous activity** • Teacher studies previously the leading idea *Thinking* in order to have a guide to stimulate reflection in the students during the discussion raised by the exercise **Preparation** • Prepare a circle of chairs • One copy of a thought cloud • Hand out a copy of each exercise to each student **Execution** • Teacher hands out a copy of exercise *Thinking and thoughts* to each pupil, then introduces the subject asking students to read the questions contained in the text	**M1** Leading idea "Thinking" **M2** Exercise "Thinking and thoughts"
Main section (10 min.) PO	• Pupils try to think about the questions contained in exercise *Thinking and thoughts* reflecting about their thinking process	
Discussion (40 min.) A D PP	• After pupils have shared their conclusions with their classmates, teacher stimulates a discussion among pupils about the relation between thinking and thoughts • Pupil can write or draw their ideas about thinking into a thinking cloud	

Lesson No 2 : Reasoning

Phase	Content	Media, Material
Introduction (5 min.) PTS TP PO	**Previous activity** • Teacher studies previously the leading idea *Reasoning* and the exercises *Giving reasons* , *Giving reasons and giving explanations* and *Inductive reasoning* in order to be aware of thinking in a logical way in order to form a conclusion or judgement **Preparation** • Prepare a circle of chairs • Hand out a copy of each exercise to each student **Execution** • Teacher hands out a copy of and the exercises *Giving reasons* , *Giving reasons and giving explanations*, *Inductive reasoning* and *Hypothetical reasoning* to each pupil, then introduces the subject asking students to read the questions contained in the text	**M3** Leading idea "Reasoning" **M4** Exercise "Giving reasons" **M5** Exercise "Giving reasons and giving explanations" **M6** Exercise "Inductive reasoning" **M7** Exercise "Hypothetical reasoning- thinking with if- then statements"
Main section (15 min.) A	• Pupils try to think if the people give good reasons – they also have to give reasons to their answers in material *Giving reasons* - then they move to *Giving reasons and giving explanations* to learn to distinguish between giving a reason and giving an explanation and also move to *Inductive reasoning* and *Hypothetical reasoning* to learn about distinguishing between giving reasons and giving explanations	
Discussion (35 min.) D PP	• After pupils have shared their conclusions with their classmates, teacher stimulates a discussion and encourage them to think of own examples • Giving a reason and giving an explanation • Use examples to make general rules • Practice "If- then- statements"	

Lesson No 3 : Underlying assumptions

Phase	Content	Media, Material
Introduction (5 min.) PTS TP	**Previous activity** • Teacher studies previously the leading idea *Underlying assumption* in order to be aware of assumptions **Preparation** • Prepare a circle of chairs • Hand out a copy of each exercise to each student **Execution** • Teacher hands out a copy of exercise *Figuring out underlying assumption* to each pupil, then introduces the subject asking students figuring out underlying assumptions and finding out different *Mental acts*	**M8** Leading idea "Underlying assumptions" **M9** Exercise "Figuring out underlying assumptions"
Main section (10 min.)	• Pupil try figuring out underlying assumptions and inquire mental acts	
Discussion (40 min.) D	• Then the pupils share their conclusions with their classmates reflecting on the investigation process	

Lesson No 4 : Dreaming

Phase	Content	Media, Material
Introduction (5 min.) PTS TP	**Previous activity** • Teacher studies previously the leading idea *Dreaming* in order to have a guide to stimulate reflection in the students during the discussion raised by the exercise **Preparation** • Prepare a circle of chairs • One piece of paper for drawing • Hand out a copy of each exercise to each student **Execution** • Teacher hands out a copy of exercise *Dreaming* to each pupil, then introduces the subject asking students to read the questions contained in the text	**M11** Leading idea "Dreaming" **M12** Exercise "Dreaming"
Main section (10 min.) PO	• Pupils try to think about the questions contained in this exercise reflecting about dreaming	
Discussion (40 min.) A D PP	• After pupils have shared their conclusions with their classmates, teacher stimulates a discussion among pupils about dreaming • Students can write or draw their ideas about dreaming	

Lesson No 5 : Good Reasons

Phase	Content	Media, Material
Introduction (5 min.) PTS TP	**Previous activity** • Teacher studies previously the leading idea *Good Reasons* in order to have a guide to stimulate reflection in the students during the discussion raised by the exercise **Preparation** • Prepare a circle of chairs • Hand out a copy of each exercise to each student **Execution** • Teacher hands out a copy of exercises *The relevance of reason* and *Good reasons* to each pupil, then introduces the subject asking students to read the text looking for criteria for good and poor reasons	**M13** Leading idea "Good reasons" **M14** Exercise "The relevance of a reason" **M15** Activity "Good reasons"
Main section (15 min.) PW	• Pupils try to think about the reasons in *The relevance of reason* and *Good reasons*.	
Discussion (30 min.) D PP	• After pupils have shared their criteria with their classmates, teacher stimulates a discussion among pupils about good reasons and criteria	

Lesson No 6 : Relation between parts and whole

Phase	Content	Media, Material
Introduction (5 min.) PTS TP	**Previous activity** • Teacher studies previously the leading idea *Relation between parts and whole* in order to have a guide to stimulate reflection in the students during the discussion raised by the exercise **Preparation** • Prepare a circle of chairs • Hand out a copy of each exercise to each student **Execution** • Teacher hands out a copy of exercise *Relations between parts and whole* to each pupil, then introduces the subject asking students to read the questions contained in the text	**M16** Leading idea "Relation between parts and whole" **M17** Exercise "Relation between parts and whole"
Main section (10 min.) PO	• Pupils try to answer questions contained in the exercise clarifying the relation between the parts and the whole	
Discussion (40 min.) D PP	• After pupils have shared their conclusions with their classmates, teacher stimulates a discussion among pupils about the relation between the parts and the whole	

Lesson No 7 : Hypothetical Syllogism

Phase	Content	Media, Material
Introduction (5 min.) PTS TP	**Previous activity** • Teacher studies previously the leading idea *Hypothetical Syllogism* in order to have a guide to stimulate reflection in the students during the discussion raised by the exercise **Preparation** • Prepare a circle of chairs • Hand out a copy of each exercise to each student **Execution** • Teacher hands out a copy of exercise *The syllogism* to each pupil, then introduces the subject asking students to read the text looking for their conclusions of the if… then statements	**M18** Leading idea "Hypothetical syllogism, if…..then…." **M19** Exercise "The syllogism"
Main section (10 min.) PO	• Pupils try to think about the syllogism reflecting about their conclusions	
Discussion (35 min.) D PP	• After pupils have shared their conclusions with their classmates, teacher stimulates a discussion among pupils about the different examples	

Lesson No 8 : Looking for alternatives

Phase	Content	Media, Material
Introduction (10 min.) PTS TP	**Previous activity** • Teacher studies previously the leading idea *Looking for alternatives* in order to have a guide to stimulate reflection in the students during the discussion raised by the exercise **Preparation** • Prepare a circle of chairs • Hand out a copy of each exercise to each student **Execution** • Teacher introduces a simple game *What is it used for?* and then hands out a copy of exercises *Looking for alternatives - Criteria Looking for alternatives to everyday situations* and *Alternatives* to each pupil, then introduces the subject asking students to look for alternatives	**M20** Leading idea "Looking for alternatives" **M21** Activity "What is it used for?" **M22** Exercise "Looking for alternatives. Criteria" **M23** Exercise "Looking for alternatives to everyday situations" **M25** Exercise "Alternatives"
Game (10 min.) A	• Playing a simple game	**M21** Activity "What is it used for?"
Main section (10 min.) PO	• Pupils try to think about the questions contained in the exercises reflecting about their thinking process	**M22** Exercise "Looking for alternatives. Criteria" **M23** Exercise "Looking for alternatives to everyday situations" **M25** Exercise "Alternatives"
Discussion (30 min.) A D PP	• After pupils have shared their conclusions with their classmates, teacher stimulates a discussion among pupils about looking of alternatives and criteria • Pupils can think about conflict situations and perform a play/scenes in front of the class	

Lesson No 9 : What would change? Looking for alternatives

Phase	Content	Media, Material
Introduction (5 min.) PTS TP	**Previous activity** • Teacher studies previously the leading idea *"Looking for alternatives"* in order to have a guide to stimulate reflection in the students during the discussion raised by the exercise **Preparation** • Hand out a copy of each exercise to each student **Execution** • Teacher divides the students in groups and asks them to think about a conflict situation and asks to perform a play/scenes in front of the class	**M20** Leading idea "Looking for alternatives" **M24** Activity "What would you change? Looking for alternatives"
Main section (15 min.) A	• Each group will prepare a scene and performs it in front of the class	
Discussion (20 min.) D	• After performing the scenes the teacher invites the pupils to think about different solutions for the conflicts in the scenes	

Lesson No 10 : Lying

Phase	Content	Media, Material
Introduction (5 min.) PTS TP	**Previous activity** • Teacher studies previously the leading idea *Lying* in order to have a guide to stimulate reflection in the students during the discussion raised by the exercise **Preparation** • Prepare a circle of chairs • Hand out a copy of each exercise to each student **Execution** • Teacher hands out a copy of exercise *Lying* to each pupil, then introduces the subject asking students to read the questions contained in the text	**M26** Leading idea "Lying" **M27** Exercise "Lying"
Main section (10 min.) PO	• Pupils try to think about the questions contained in the exercise reflecting about lying, reasons and justifications	
Discussion (40 min.) D PP	• After pupils have shared their ideas with their classmates, teacher stimulates a discussion among pupils about lying	

Lesson No 11 : Truth

Phase	Content	Media, Material
Introduction (10 min.) PTS TP	**Previous activity** • Teacher studies previously the leading idea *Truth* in order to have a guide to stimulate reflection in the students during the discussion raised by the exercise **Preparation** • Prepare a circle of chairs • Prepare a flip chart **Execution** • Teacher writes on the flip chart the questions contained in exercise *Truth*, then introduces the subject asking students to read the questions written on the flip chart	**M28** Leading idea “Truth” **M29** Exercise “Truth”
Discussion (40 min.) D	• Teacher stimulates the discussion among the pupils inviting them to discuss with their classmates the issues that they think are more relevant. Students do not need to answer all the questions. The teacher should facilitate a philosophical dialogue and should always ask for reasons (not allowing “yes” or “no” answers)	

Lesson No 12 : Lift the veil

Phase	Content	Media, Material
Introduction (5 min.) PTS TP	**Previous activity** • Teacher studies previously the leading idea *Truth* in order to have a guide to stimulate reflection in the students during the discussion raised by the exercise **Preparation** • Prepare a sheet • Prepare a lamp **Execution** • After having fixed the sheet upright in a way that makes it seem like a screen, the teacher puts a lamp behind it. S/he closes the windows or shades since the room must be dark, and turns on the lamp. Before turning on the lamp, the teacher will have put some objects between the lamp and the sheet. Depending on the distance of the objects from the light, the shadows will assume a different size. S/he tries to make the smallest objects seem bigger and vice versa	**M28** Leading idea "Truth" **M30** Activity "Lift the veil"
Main section (15 min.) A	• Then the teacher asks the students what they see in the shadows projected on the sheet, for example their size and colour. Then the teacher lifts the sheet and shows everyone what is truly behind it	
Discussion (35 min.) D	• After the activity, the teacher asks students to think about how many means exist to reach the truth, if is easy to reach the truth, when and whether we can understand that a thing is true. The teacher invites students to share their reasoning	

Lesson No 13 : What is true? What is false?

Phase	Content	Media, Material
Introduction (5 min.) PTS TP	**Previous activity** • Teacher studies previously the leading idea *Truth* in order to have a guide to stimulate reflection in the students during the discussion raised by the exercise **Preparation** • Prepare a circle of chairs • Hand out a copy of each exercise to each student **Execution** • Teacher hands out a copy of exercise *True/False* to each pupil and invite them to decide if the statements contained in the text are true or false and give reason of their choices	**M28** Leading idea "Truth" **M31** Exercise "True or False"
Main section (15 min.) PO	• Pupils work individually on the exercise	
Discussion (40 min.) D	• Teacher invites pupils to share their conclusions, asking for the reasoning behind students' assertions to facilitate the critical thinking	

Lesson No 14 : Reality

Phase	Content	Media, Material
Introduction (5 min.) PTS TP	**Previous activity** • Teacher studies previously the leading idea *Reality* in order to have a guide to stimulate reflection in the students during the discussion raised by the exercise **Preparation** • Prepare a circle of chairs • Prepare a flip chart **Execution** • Teacher writes on the flip chart the questions contained in exercise *Reality*, introduces the subject inviting pupils to reflect on the concept reality	**M32** Leading idea "Reality" **M33** Exercise "Reality"
Discussion (35 min.) D	• Teacher stimulates the discussion among students about the questions written on the flip chart, remembering that they do not need to answer all of them. The teacher should facilitate a philosophical dialogue and should always ask for the reasoning behind students' answers (not allowing "yes" or "no" answers)	

Lesson No 15 : Investigating reality

Phase	Content	Media, Material
Introduction (5 min.) PTS TP	**Previous activity** • Teacher studies previously the leading idea *"Reality"* in order to have a guide to stimulate reflection in the students during the discussion raised by the exercise **Preparation** • prepare a large box, a glove and a stocking, glue • prepare some objects of different shapes to put in the box (one of these must be something with which the students are not familiar) • Prepare a circle of chairs • Hand out a copy of each exercise to each student **Execution** Step 1 Teacher cuts the foot of a stocking and sews a glove in place of it. S/he makes a hole in one of the box's sides. It must be big enough to allow an arm to go inside, and then the teacher sticks the stocking on it, putting the glove into the box. S/he puts some objects of different shapes in the box; five are enough, but one of these objects must be something with which the students are not familiar Step 2 Teacher divides the students in four groups and asks them to take turns slipping their hand into the glove and reaching into the box touching the objects	**M32** Leading idea "Reality"
Game (20 min.) A	• Each team will write down on a piece of paper the objects it thinks it recognizes. Then the teacher collects the papers, opens the box, shows them the content and gives one point for each recognized object. The winner will be the team that has recognized the most objects	
Main section (15 min.) PO	• After doing the previous activity, the Teacher invites pupils to answer the questions contained in exercise *What is this?*	**M34** Activity "What is this?"
Discussion (20 min.) D	• Then the pupils share their conclusions with their classmates reflecting on the investigation process they used to recognize the objects in the box	

Lesson No 16 : Imagination or reality?

Phase	Content	Media, Material
Introduction (15 min.) A PTS TP	**Previous activity** • Teacher studies previously the leading idea *"Reality"* in order to have a guide to stimulate reflection in the students during the discussion raised by the exercise **Preparation** • Prepare a sheet • Prepare a lamp **Execution** Step 1 After having fixed the sheet upright in a way that makes it seem like a screen, the teacher puts a lamp behind it, closes the windows or shades since the room must be dark, and turns on the lamp Step 2 Teacher asks two or more students to act out some scenarios in order to make their bodies appear deformed on the other side. For example, if the lamp is next to the sheet and one of the students stands next to it, his or her shadow will appear to be a normal size. But if another student stands next to the other side of the lamp and goes towards whoever is still next to it, he or she will seem like a giant who is about to attack a poor victim. The teacher asks pupils to use their imagination to create different stories	**M32** Leading idea "Reality"
Main section (15 min.) PP	• The pupils chosen act out their invented scenarios while the other students are the observers	
Discussion (30 min.) D	• After the activity the teacher invites students to reflect on whether the perception of the observers is different from that of the actors, and in what sense	

Lesson No 17 : Is it real or not?

Phase	Content	Media, Material
Introduction (5 min.) PTS TP	**Previous activity** • Teacher studies previously the leading idea *Reality* in order to have a guide to stimulate reflection in the students during the discussion raised by the exercise **Preparation** • Prepare a circle of chairs • Prepare a flip chart • Hand out a copy of each exercise to each student **Execution** Step 1 Teacher gives a copy of exercise *Is it real or not?* to each pupil and invites them to say if they define the things listed in the first part of the text as real or not. Step 2 While the pupils are working on the exercise, the teacher writes the questions contained in the second part of the exercise on the flip chart	**M32** Leading idea "Reality" **M36** Exercise "Is it real or not?"
Main section (15 min.) PO	• The pupils work on the exercise individually. After completed the table of the exercise, pupils give reasons to their answers on a piece of paper	
Discussion (40 min.) D	• After completed the exercise, pupils compare their answers with their classmates and try to answer the questions the teacher has written on the flip chart, discussing the different points of view	

M1 Leading idea “Thinking”

In the thinking process, many mental activities are involved, like wondering, remembering, pretending, assuming, supposing, generalizing, abstracting, Imagining, considering, classifying, reasoning, judging and reflecting. The process of thinking is very complex. As every person is unique, every person thinks differently.

Discuss with you students their thinking processes and encourage them to identify their specific and individual thoughts.

M2 Exercise “Thinking and thoughts”

- Do you ever think about your own thinking?
- Can you stop thinking whenever you want to?
- When do you think?
- What is the difference between thinking and having thoughts?
- How do you think?
- Where do our thoughts come from?
- When you think, do you put your thoughts into words?
- Can you always think about anything you want?
- Can you stop thinking?
- Do you prefer imagining or remembering?

M3 Leading idea “Reasoning”

When we behave in a questionable or uncertain way, we often ask ourselves for reasons, because we want to justify our actions or we want to find out if we imply or assume something.

We also want to know if there are perhaps more plausible possibilities. We give reasons for our actions, but are these reasons always “good” reasons?

When can we say that a reason is a “good” reason? There must be certain conditions for calling a reason a “good” reason – a. it should be relevant and connected to the issue and context – b. it should be plausible and credible – and c. it should be strong enough as an adequate justification in a certain context/ situation. There are varying degrees of strength and weakness in inductive reasoning and various types including statistical syllogism, arguments from example, causal inferences, simple inductions, and inductive generalizations. They can have part to whole relations, extrapolations, or predictions.

M4 Exercise “Giving reasons”

Are the following people giving good reasons for their actions? Please give a good reason for your answer!

- Maria says: “They should not wear a scarf around their head because they are in our country now.”
- Dina says: “I thought it was ok to be subjected to the dress code for some weeks because I was allowed to travel to such a beautiful and interesting country.”
- Isabell says: “I would not mind wearing a scarf if I were to go to Iran because I would not like if people hurt.”
- Manar says: “They must wear the scarf because if they did not, they would hurt their parents’ feelings.”
- Marco says: “When they live in our country they should not wear a scarf because they have to adjust.”

M5 Exercise “Giving reasons and giving explanations”

We also should be able to distinguish between giving a reason and giving an explanation. Reasoning is the process of thinking about something in a logical way in order to form a conclusion or judgment – it is the ability of the mind to think and understand things in a logical way. Giving an explanation describes the way in which something happens, therefore dealing with issues of cause and effect. Explanations are not the same as arguments, but sometimes it is hard to distinguish reasons from explanations.

Here are some examples

Claim

- Marco is a good quarterback.
- Dinosaurs are popular.

Reason for the claim being true

- Marco threw for thirty-nine touchdowns this season.
- Dinosaur toys are a perennial favorite with children.

Explanation for the claim being true

- Marco practices every day.
- Dinosaurs are exotic creatures.

M6 Exercise “Inductive reasoning”

Inductive reasoning essentially involves generalization. After observing some number of examples, conclusions are drawn which seem most likely. For example, after drawing 20 red sweets from a bag, the conclusion is drawn that all sweets in that bag are red. Note that the inductive conclusion may very well be wrong.

Use some examples to make a general rule. What do you think?

- Dina´s family is from Iran. Therefore, Dina wears a scarf in Austria.
- All observed basketball players are tall. So, all basketball players must be tall.
- John is a teacher. All teachers are nice. Therefore, we assume that John is nice.
- What do the following examples have in common?
- There are three Chinese kids in my class. None of them speak English properly.
- I bet there is no Chinese kid in the school that speaks English properly.
- We have a fat kid in school. He really is lazy. I never see him jogging. Isn´t that typical?

M7 Exercise “Hypothetical reasoning- thinking with if- then statements”

Encourage your students to see things from a different point of view – so they can try to understand what could happen in the following situation

- If Ella imagines being new in class, then……
- If all children share their lunch, then……
- If there were no rules, then……
- If Saif is not listening to Valentin carefully, then….
- If you are daydreaming, then….
- If you are imagining, then….
- If you make fun of someone, then….

M8 Leading idea “Underlying assumptions”

Assumptions are beliefs or ideas that we hold as being true often with little or no evidence.

When we see or hear something, or when we make choices, we often take some ideas for granted. But some assumptions we make are perfectly reasonable; for example, that someone who sneezed has a cold. But we sometimes make assumptions that we don’t have reason to believe, or the reasons to belief are false. We are often unaware of assumptions.

The skill of uncovering assumptions helps us to become aware of assumptions that others or ourselves make. So we can ask ourselves: “Do I have reasons for thinking that this assumption is correct?” We should learn to be able to specify the assumptions that underlie a particular statement, where the truth of the statement is contingent upon assumptions.

M9 Exercise “Figuring out underlying assumptions”

See if you can figure out what assumption is being made. Then say whether or not you think the inferences are reasonable ones to make.

Situation	Underlying assumptions	Inference is reasonable	Inference is not reasonable
Valentin looks at Satif.	Valentin will accuse him of taking his bagel.		
Sonia does not eat ham.	Sonia is vegetarian.		
Ella plays with her dog.	Ella likes dogs.		
Satif is tall.	Satif must be a basketball player.		
Manar sneezed.	Manar has a cold.		
The boy is overweight.	He must be very lazy.		
Suzan is Austrian.	Suzan must be a good skier.		
His name is John.	John must come from England.		
A man is arrested.	He must be guilty of crime.		
The traffic stops.	The light must be red.		

M10 Exercise “Mental acts”

There are many different mental acts. Try to find out the differences.

1. What is the difference between knowing and believing?
2. What is the difference between imagining and wishing?
3. What is the difference between suspecting and assuming?
4. What is the difference between deciding and believing?
5. What is the difference between knowing and finding out?
6. What is the difference between classifying and judging?
7. What is the difference between remembering and imagining?
8. What is the difference between nocturnal dreaming and daydreaming?
9. What is the difference between understanding and knowing?

M11 Leading idea “Dreaming”

Having a dialogue on dreaming and thinking can be very fascinating for children, as well as for adults. What happens when you dream? What is dreaming caused by? How is dreaming different from daydreaming? Dreams are a succession of images, ideas, emotions or sensations that come into our mind when we sleep. The content and purpose of dreams are not definitively understood, though they have been a topic of scientific speculation and a subject of scientific interest.

When we are dreaming our conscious mind can tune into different aspects of ourselves.

Many people see dreams as a mixture of thoughts and images coming from waking experiences. But there are many other theories, for example, the research of Sigmund Freud and his depth psychology considered dream events as important sources of information about unconscious modes of experience within people and saw interpretation of dreams as necessary to understanding them. However, in neuroscience dreams are traced back to neural and cognitive processes in the brain, and the interpretation of dreams is not considered necessary to understanding them.

M12 Exercise “Dreaming”

1. Is it possible to know whether you are dreaming or not?
2. What do people mean when we say “That’s a dreamer”?
3. What is the difference between imagining and dreaming?
4. Can different people have the same dream?
5. Can you influence your dreams? If yes, how?
6. What is the difference between dream and reality?
7. What is a dream?
8. Is there a difference between nocturnal dreaming and daydreaming?
9. Can you dream with your eyes wide open?

M13 Leading idea “Good reasons”

The way we see the world, our beliefs, and what we think is good, correct, or adequate, all determine the way we behave and make decisions. However, we sometimes act without asking ourselves why we do something, or what our reasons are for acting the way we do. But even when we don’t identify the reasons, we always have reasons that justify, explain, or support our actions, and that is why asking ourselves what these reasons are can be so important. Identifying them and articulating them helps us understand why we act the way we do, and therefore allows us to then reflect on whether our actions are correct. It is important to consider the reasons for our actions, whether they are good or bad reasons, if they really justify or explain what we do, and whether our reasons are consistent with our beliefs. Or, on the contrary, we also must determine whether there is a certain inconsistency between what we think and what we do. Finally, it is interesting to work on the difference between reasons that support and justify our actions, and reasons that excuse our action (that is to say, distinguishing between authentic reasons and mere excuses).

We obviously cannot produce a closed list of good and bad reasons, but we can work on certain criteria with the students. These criteria should help them recognize if the reasons that are being used in each situation are good, appropriate or adequate, or just mere excuses. Three possible criteria for defining the quality of a reason could be

1. Being relevant to the situation. There must be a connection or a clear relation between the action or discourse and the reason that justifies the action.
2. Being based on reliable evidence.
3. Being strong or consistent enough to justify our action or our discourse.
4. Being based on something known by the other, helping to make the issue easier to understand.

M14 Exercise “The relevance of a reason”

Sometimes, when we ask about the reason or reasons that lead to someone’s actions, we can see that they are not good reasons. They sometimes answer with reasons that have nothing to do with what we asked, that are not consistent, or that are based on opinions rather than evidence.

Bearing in mind the criteria previously mentioned, determine which sentences are examples of good reasons and which are not.

Reasons	Good	Poor
I like playing volleyball because I have good friends on the team.		
I like playing football because I am a very good player and I score lots of goals.		
I like playing basketball because I have great fun.		
Playing rugby is great: you can kick all your teammates.		
I like playing football because the sandwiches at half-time are delicious.		
I hurt my ankle, so I had better not go dancing.		
I am not going to play football because I prefer basketball.		
I prefer not to play football because I am a very bad player and I feel embarrassed.		
I am not going to play football because my teammates push me around and hit me.		
I overslept, so I could not get to class.		
I did not come to class yesterday because I was ill.		
I did not come to class yesterday because I met some friends and we went to play football.		
I did not come to class yesterday because I had to help my parents.		
I did not come to class yesterday because the birds were singing happily.		
I did not come to class yesterday because I did not feel like it.		

M15 Activity “Good reasons”

Which of the following situations do you think justify buying/purchasing something new? (This exercise can be done as an activity: arrange your students in a line, and tell them take one step to the right if the situation justifies a new purchase, or one step left if not. Then ask some of them to give a reason. After listening to the reasons, students can change their position.)

1. Your trousers are torn.
2. Your bicycle is old and rusty.
3. Your best friend has just got some new trousers.
4. You have seen a notebook in a shop in your neighborhood – it is just like the ones you already use but this one has a nicer cover.
5. Your friends have all bought t-shirts with a really flashy design. You want one but your parents say that you already have enough clothes.
6. There are some cool t-shirts on sale and you want to buy one but your parents won’t let you, because they think the t-shirts are very different from the clothes the family normally wears.
7. You tore your shirt while playing and you want to buy a new one. There are some really flashy t-shirts, some classic t-shirts, and some more formal shirts. Which would you buy? Why? What reasons would you use?
8. The family needs a new car for work and you are discussing what car to buy. Your brother wants a sports car because it is fast and cool.
9. The family needs a new car and your parents want an off-road truck because it is tougher, it can go anywhere, and it is bigger.
10. Other situations

Bearing in mind your answers, consider these questions:

- Are there some reasons that are better than others? Is being useful or functional necessarily a better reason than being cool or aesthetically pleasing?
- When making a decision, what kind of reasons do you think are more relevant?

M16 Leading idea “Relation between parts and whole”

The relation between the parts and the whole is based on establishing existing connections between the aspects of something (an object, an event or a process) and that thing when globally regarded as a whole. The features or characteristics of the whole usually depend on the features and characteristics of its parts. Children normally think this way, and they confer the characteristics of the parts to the whole and vice versa. Thus, if a house is built with small bricks, they usually think the house is also small, or if a house is big, they tend to think that the rooms will also be big. But things are not always like that, and there are not any logical rules that can be applied directly to the relation between the parts and the whole.

Bearing this in mind, understanding what the relations are based on is fundamental to understanding the nature of the relations themselves, because every time we connect something in space or time, a relation comes into being. It is also very important for understanding the ethical and aesthetic aspects of life. We might think that a good life is a life in which most of its parts have been positive, or in which we have developed good habits. However, this is not always so, as a series of actions that can be considered positive when viewed individually may be considered negative if observed as a whole. Let’s take the example of an assembly line in a factory that makes bombs (the production of each individual part must be good) or the series of administration procedures that end up leaving someone out of the health system. That would take us to the more profound question of whether it is possible to define a part as good without knowing its relation to the whole.

It is important to work with students on the relations between the parts and the whole in order to help them discover their importance and validity depending on context and the goals we set when discussing the relationship between parts and the whole.

M17 Exercise “Relation between parts and whole”

1. If only one raindrop falls, is it raining?
2. If a flock is made up of big sheep, does that mean it is a big flock?
3. If your school has small classrooms, does that mean your school is small?
4. If one of your fingers hurt, does that mean your body hurts?
5. If you like ice cream, sausages and spaghetti, does that mean you like spaghetti with sausage ice cream sauce?
6. If a piece of music sounds loud, does that mean that all the notes that make up the piece are loud?
7. If an orchestra sounds good, does that mean that all the instruments sound good?
8. If a picture is full of small figures (people, animals, houses etc), does that mean that it is a small picture?
9. If the Spanish state is big, does that mean that each region in Spain is big?
10. If you give someone a gift, does that mean you are generous?
11. If you behave well one day, does that mean you are a good person?
12. If you feel happy for a while, does that mean that you are a happy person?
13. If you have a thought, are you thinking?

M18 Leading idea “Hypothetical syllogism, if…..then….”

A hypothetical syllogism is a series of two statements that has great importance in human reasoning. The basic form is a series of two statements joined by the connectors “if” and “then”. The first statement is introduced by “if” and this statement is called the premise. The second statement is introduced by “then” although we sometimes do not write or say “then”. This second statement is called the consequence.
These are some clear examples:

- If it rains, (then) the streets get wet
- If you study hard, you will pass the exam
- If you pay attention in class, we will go on a trip
- If I push the book, it will fall from the table

These examples are not so clear:

- "Firefighters are very brave people"which is equivalent to “If you are a firefighter, then you are brave"
- “All mothers are women” is equivalent to “If you are a mother, then you are a woman”.

This is a vital way of expressing causality relations: the premise is the cause and the consequence is the effect. We use it very often although we do not always use the logical connectors (“if…..then”) which help us express that relation more clearly.

The hypothetical syllogism or conditional is a type of relation between two statements or premises, one of which establishes a relation of causality between two sentences like the ones we described before, while the other is a statement that derives from one of the two related sentences.

For example

Statement 1 : If you study every day, you will pass the exam.

- Premise : Studying every day
- Consequence : Pass
- Rule : The relation A establishes or implies B

Statement 2 : Pedro studies every day

We can infer a conclusion from those two statements, which will be valid if both statements are true and the rules of the syllogism are respected. When the second statement states that the premise in the first statement has happened, we may conclude that what is stated in the consequence will happen.

Consequence : Pedro passes the exam.

We constantly use this technique in everyday life in order to know why things happen and to predict what will happen in the future. We do so because experience or knowledge helps us establish a relation between the two statements. The rule also applies if we invert the statements in the following way

Rule : Denying A implies denying B

Statement 1 : If you study every day, you will pass (A implies B)

Statement 2 : Pedro has not studied every day (No A)

Consequence : Pedro has not studied every day (No A)

But beware! Supposing that a relation where A implies B is true only means that it is surely true in these two examples, but B

does not necessarily imply A: (Confirming the consequence of the first statement does not mean that the premise is true. In fact, it tells us nothing about the premise). There is no conclusion.

Denying A does not necessarily imply denying B: (Denying the premise in the first statement does not necessarily imply that denying the consequence is true). Rather, there is no conclusion.

First statement (A implies B)	**Second statement**	**Conclusion**
If you study every day, you pass	You study (A)	You pass (B)
If you study every day, you pass	You do not study (!A)	No conclusion
If you study every day, you pass	You pass (B)	No conclusion
If you study every day, you pass	You do not pass (!B)	You have not studied (!A)

This is so to such an extent that if the conclusion is not true, we must examine the statements. If Pedro has studied hard and not passed the exam, we will reach the conclusion that at least in his case, not studying is not the cause of failing the exam. We must, therefore, look for another cause or modify the syllogism.

M19 Exercise “The syllogism”

Say if we can reach a conclusion or not in the following examples (encourage students to use the “If…..then…” format).

1. All the students in Fourth Form are going on a trip tomorrow. You are going on a trip tomorrow. So

2. All mothers are women. You are not a mother. So

3. When it rains, the streets get wet. The streets are wet. So

4. Whenever I eat mussels, my stomach hurts. I have eaten mussels, so

5. If the weather is good on Saturday, we will go to the country. We have been in the country on Saturday. So

6. If you train every day, you are a member of the team. Kevin trains every day, so

7. If you train every day, you are a member of the team. Kevin does not train every day, so

8. If you are born in Chile, you are Chilean. Pedro is not Chilean, so

9. If you are born in Chile, you are Chilean. Pedro was not born in Chile, so

10. If we take a taxi to school, we will be early. We were not early, so

M20 Leading idea “Looking for alternatives”

The search for alternatives requires an ability related to creative and divergent thinking - thought aimed at new meaning. This new meaning is different from the usual, generalized meaning in a given society. For that reason, the search for alternatives is based on imagination and fueled by different points of view and angles within a research community. It is also an ability aimed at looking for new meanings and solutions.

It is thus an important tool in the world of education in dealing with themes of diversity and cosmopolitanism because, by recognizing and looking for alternatives to our own way of seeing things and acting, we are more open to the Other’s points of view and behavior (the Other acts and sees things differently due to origin or culture). Being in the position to look for alternatives helps us clarify our own ideas and be more open to other’s ideas. It also helps in stating what we find acceptable or unacceptable in our own behavior and in the Other’s behavior. Exercising this ability aids us not only in finding the best way of doing things, but also in looking for solutions to a problem without using the usual options.

M21 Activity “What is it used for?”

There is a classic and very simple game we can play in order to introduce the topic.

A member of the group takes an object, a pencil for example and says: “I use the pencil for writing” (and mimes writing). The student then passes the pencil on to the person on his right. This student has to find another use for the pencil without repeating any of the previous uses (e.g. using the pencil as a moustache and putting on his upper lip). The pencil keeps going round and every student must find a new use for it. The game can also be played with other objects.

M22 Exercise “Looking for alternatives. Criteria”

1. You are going on a trip with your friend and his father. Before you leave, your friend’s father asks you what route you want to follow. If you take the motorway, the trip will be shorter but the views will not be very nice. If you take a secondary road, it will take longer but the views will be more beautiful. What do you prefer? What criteria did you use in choosing? Is it difficult to change your mind if your friend prefers the other option?
2. You are going to eat at your friend’s. Her father asks you if you would prefer pizza, chicken, or the remains of last night’s roast salmon. Your friend says that she prefers the chicken but her father says that, since you are the guest, you should choose. What do you choose? What criteria have you used?
3. At school, you are given the choice of studying two extra weekly hours of French as a second language or having those two extra hours to catch up on your class work. One of your classmates, who you are always with, decides to go to French. What do you choose? What criteria did you use?
4. You are going on a school trip to visit a city that has three main sights: a guided visit to the cathedral (which is one of the most beautiful in the country), a mountain route where you can see the local plants and animals (which are rare in other parts), and a visit to the toy museum (which has more than twenty rooms where you can actually play with all the toys). What do you choose to do? What criteria did you use?

M23 Exercise “Looking for alternatives to everyday situations”

The group is asked to look for alternatives in the situations we describe. The alternatives they come up with are written down, and the group then analyzes which are feasible and which are not. We can then vote to choose the best two options and discuss the reasons for choosing them and the criteria used in choosing one over the others.

1. A school trip to the mountains was scheduled for today but temperatures were freezing last night and now the roads are blocked. How can we spend the day?
2. Your best friend has invited you to her birthday party but she has said that she does not want guests to buy her presents. She would prefer guests to make the presents. What do you give her? (If the children do not come up with this idea, you could ask about the present being an afternoon playing games at home or a trip to countryside, etc.).
3. You play on a volleyball team that trains every Saturday at school. You normally walk to practice because it is only a fifteen minute walk. Today, when you got to the gymnasium, you notice that you have left your sports shoes at home and you only have the school shoes you are wearing. What do you do?
4. You are going to meet some friends at home. You had planned on listening to some music, maybe dancing a little and watching a film on your computer. However, soon after your friends arrive, there is a black out and the battery on your computer has run out. How do you organize the afternoon?

M24 Activity “What would you change? Looking for alternatives”

Depending on the group you have, choose two or three conflict situations (by yourself or with the group) that are relevant for the students (you can even take them from the exercise about reciprocity and connect this activity with that exercise). Then, prepare a short theater play (a scene of a few minutes) representing this conflict and a potential solution (if the solution is not a good solution, or if it introduces new problems, it can be even more interesting). This play (scene) can be prepared and acted out by the students, or can also be prepared before by the facilitator of the session, and then acted by the students, or even by other people (other facilitators/ teachers, students from other classes).

The play/scene is performed in front of the class. When it is finished, the facilitator asks the class what they think about it, and what they would change in order to have a different end (better if possible). If the suggested changes are related to the attitude or the behaviour of one of the characters, then the facilitator will ask the person suggesting those changes to take part in the theater play. The facilitator then asks the group to perform the play again, now incorporating the new participant and his/ her perspective.

Then the discussion can be guided using the discussion plan about alternatives. This activity is inspired by the Forum Theater (We recommend looking for further information about the Forum Theater in order to carry out the activity).

M25 Exercise “Alternatives”

1. Do you generally find it easy or difficult to find alternatives to an idea or a plan?
2. Do you find it easy or hard to accept an alternative to your idea that comes from someone else?
3. You had planned on doing something that is now not possible because of changed circumstances… but you have found an alternative. Is it better for an alternative to end up being better than the original plan, or is it always worse because it was not the first option?
4. When someone has an idea you had never considered, how do you normally feel towards this new idea?

M26 Leading idea “Lying”

As is evident, there are many reasons for not telling the truth, but to what extent do we ethically condemn lying? Are there any cases when lying can be ethically justified? Imagine, for example, a person who, because of the poverty in his or her native country, arrives in Italy after an illegal journey claiming to be from one of the countries at war, such as Syria or Somalia, in order to receive the status of a refugee. Could this lie be justified because the person is overcome by despair?

M27 Exercise “Lying”

1. If you know that telling a lie can get you out of trouble for which you were responsible, is it right for you to lie?
2. If you know you can save a friend of yours if you lie, is it right for you to lie?
3. If you realize a person has told you a lie, what would be your reaction?
4. What might be the consequences of lying?
5. What might be the consequences of telling the truth?
6. Should you always tell the truth?
7. Why do people lie?
8. Why do people tell the truth?
9. What might be a reason not to tell the truth?
10. Is not telling the truth the same as lying?
11. Is a pre-judgment a kind of lie?

M28 Leading idea “Truth”

There are various methods of investigation that we use in the pursuit of truth, even in everyday life. As rational beings, in trying to discover the world around us, we gain our knowledge through hypothesis, deductions, inductions and verification of facts etc. We can arrive at conclusions that we retain as true or false not only because they affirm or refute our beliefs, but also because they align, or do not align, with the beliefs of our community.

We can define truth in various ways. For example, it could be what we experience through our senses, what is shown in evidence, or what is shown as the result of a deductive investigation. Sometimes, truth must be sought and then discovered. However, at times, as is the case in Rosaria’s story, what we discover through research and therefore believe to be true, in reality might not be. Therefore, it is important not to forget that there are many factors that can lead to an error in our investigation of truth. For example, our senses and mental processes might be deceptive, we might not have considered enough factors, or we could be influenced by prior beliefs that we cannot abandon or question. What may help in these cases is conferring with other people and comparing our investigation methods to other ones, especially when we are trying to reach a common truth. Therefore, it would be good to be open to doubt regarding our knowledge, for there is always the possibility that a truth, even if shared, might not be the final truth – there could be another one that we would never know without using further inquiry. This requires a mind-set that is open to doubt and to the possibility of the existence of innumerable useful paths in the cognitive process in the search for a truth.

M29 Exercise “Truth”

1. Does knowing mean discovering the truth?
2. Are some truths truer than others?
3. Are there various degrees of truth?
4. Do I have my own version of truth? If so, is my truth the same as another person’s truth?
5. Does there exist a universal truth that is true for everybody?
6. Does there exist a truth that is not true for everybody?
7. Can I use any means to reach the truth?
8. Is it easy to know what is true? If not, why?
9. What determines whether something is true?

M30 Activity “Lift the veil”

You need a sheet and a lamp. Fix the sheet upright in a way that makes it seem like a screen and put a lamp behind it. Close the windows or shades since the room where you are must be dark, and turn on the lamp. Before turning on the lamp, you will have put some objects between the lamp and the sheet. Depending on the distance of the objects from the light, the shadows will assume a different size. Try to make the smallest objects seem bigger and vice versa. Then ask your students what they see in the shadows projected on the sheet, for example their size and color. Then lift the sheet and show everyone what is truly behind it.

M31 Exercise “True or False”

Decide if the following statements are true or false and give reasons.

	True	False
Snow is white. Why? _____		
Snow is white in the whole world. Why? _____		
In the whole world in winter it is cold. Why? _____		
Muslim cannot enter a Catholic church. Why? _____		
Catholic can never become a Muslim. Why? _____		
Hindu can never become an Atheist. Why? _____		
Vegetarians cannot eat meat. Why? _____		
Vegetarians chose not to eat meat. Why? _____		
Ghosts do exist.. Why? _____		
The color of our skin depends on climate conditions. Why? _____		
Everything which is on the face of the earth was born. Why? _____		

M32 Leading idea “Reality”

Everything I see, touch and feel seems to be real by evidence. On the contrary it is not so easy to define real what does not fall under our senses.

Therefore, we have at least two different positions about what we mean by reality. On the one hand, we could define reality as everything we see, touch, and feel. On the other hand, we could consider reality to be anything that, even if not part of our sensory experience, has its own existence independent from how we perceive it. For example, what is presented to us by the media impresses indirectly upon our perception and senses.

In a world where we often consider reality to be everything presented by mass media, there is a risk that we ignore the existence of something if it is not presented to us. For example, if we do not have any images of slaughters and famines, does it mean that they do not exist? On the other hand, exposure to an overabundance of images can produce the same feeling of unreality. Therefore, what should we recognize as real - what we do not perceive or what we perceive amplified?

The issue of reality is, therefore a fundamental one from a cosmopolitan viewpoint. How can we be world citizens without considering the existence of what is very far from us and not perceived, or what is amplified in its presentation to us?

M33 Exercise “Reality”

1. Is what I see real?
2. If I cannot see something, does that mean that it does not exist?
3. Is an idea real?
4. What is the difference between the idea of a chair and a chair?
5. Is my idea of a chair and my foreign friend’s idea of a chair the same thing?
6. How do I know if I’m real?
7. How do I know if the things around me are real?
8. How do I know if a country I have never visited is real?
9. If a thing is real for me, is it real also for a person who lives miles away from me?
10. Is there any difference between the reality I perceive and the reality that a South American guy perceives?
11. Does a person who speaks a different language describe reality in a different way?
12. Is what I consider real also real for an alien?
13. Is everything on the web real?
14. Are the people I meet on Facebook real? If so, are they real in the same way as the people I meet in my everyday life?

M34 Activity “What is this?”

You need a large box (one you can reach into), a glove, and a stocking. Cut the foot of the stocking and sew a glove in place of it. Make a hole in one of the box’s sides. It must be big enough to allow an arm to go inside, and then stick the stocking on it, putting the glove into the box. Put some objects of different shapes in the box; five are enough, but one of these objects must be something with which the students are not familiar. Divide the students in four groups and ask them to take turns slipping their hand into the glove and reaching into the box and touching the objects. Each team will write down on a piece of paper the objects it thinks it recognizes. Collectthe papers, open the box, show them the content and give one point for each recognized object. The winner will be the team that has recognized the most objects.

After doing the previous activity, answer the following questions.

1. If you guessed correctly what one or more of the objects were, what element helped?
2. If you guessed correctly what one or more of the objects were, what mental process helped you?
3. If you did not guess correctly what any of the objects were, what deceived you?
4. Did the fact that you were already familiar with the objects and had already used them before touching them “in the dark” help you to know what they were? If so, why?
5. If you had never seen the objects before, could you have guessed what they were? Why?
6. What were your feelings when you saw the objects that you had guessed correctly with your own eyes? Why?
7. What were your feelings when you saw the objects you had not guessed correctly with your own eyes? Why?
8. Are the people I meet on Facebook from another country real?
9. Are the friendships born on Facebook real?

M35 Activity “Imagination or reality?”

You need a sheet and a lamp. Fix the sheet upright in a way that makes it seem like a screen and put a lamp behind it. Close the windows or shades since the room where you are must be dark, and turn on the lamp. Ask two or more students to act out some scenarios in order to make their bodies appear deformed on the other side. For example, if the lamp is next to the sheet and one of the students stands next to it, his or her shadow will appear to be a normal size. But if another student stands next to the other side of the lamp and goes towards whoever is still next to it, he or she will seem like a giant who is about to attack a poor victim. Use your imagination to create different stories. Afterwards, reflect with your students if the reality of the spectators is different from that of the actors, and in what sense.

M36 Exercise “Is it real or not?”

Say if you define the following things as real or not.

	Real	Not real	?
An object I can touch			
An object I can touch			
An object I cannot touch			
The idea of the object			
An object I have never touched or seen but the others have talked to me about it			
Something I can understand			
Something I cannot understand			
A voice I hear			
Music I listen to			
A noise I cannot hear			
A dream			
An event I experience in person			
A sign			
A story that is told to me			
A story that is in a history book			
A fairy tale			
A story that happened very far from the place where I live			
A story that happened many years ago			
Something I can see			
Something I cannot see			
A type of food I have never tasted			
A fruit which does not grow in my country			

	Real	Not real	?
A foreign language I do not know			
What I see on YouTube			
A scientific experiment conducted in my country			
A scientific experiment conducted in a foreign country			
A work of art			
Space			
Time			
Vacuum			

After completed the table above justify your answers on a piece of paper; if you have ticked “?” give reason.

Then compare your answers with your classmates and answer the following questions:

1. Is reality real?
2. Why did you give different answers, if given?
3. Does another reality beyond the reality present to your senses exist?
4. Are dreams, ideas and the things you can imagine real?
5. Is the idea of an object as real as the object itself?
6. Which is the relationship, if there is any, between the idea of an object, the dream of this object and the object itself?