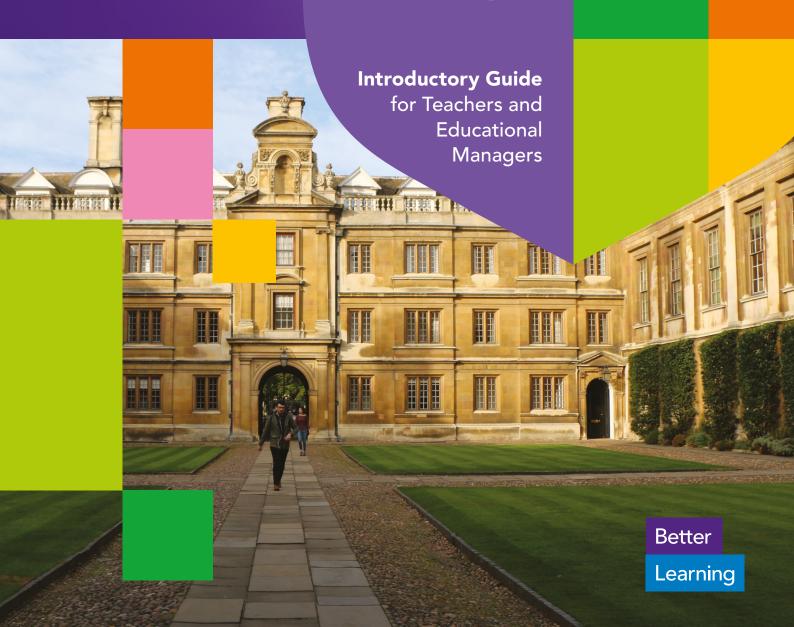
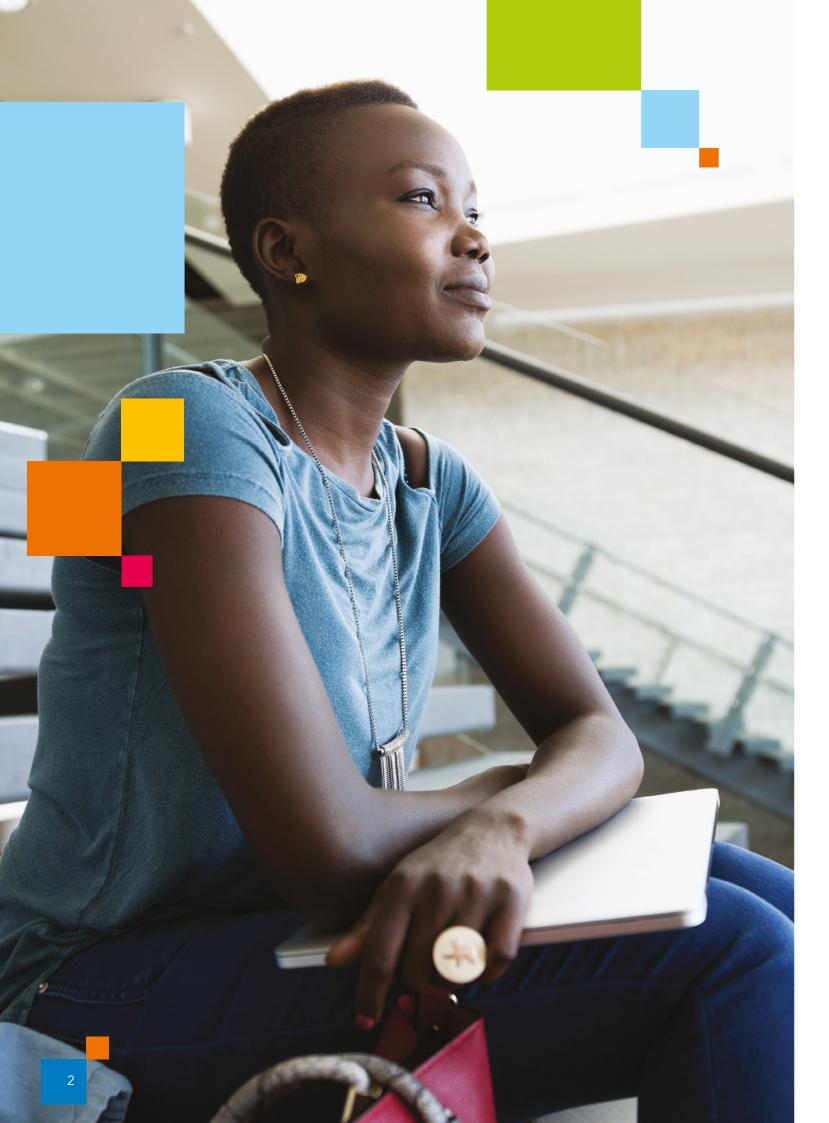


Cambridge Life Competencies Framework

Critical Thinking





Critical Thinking

Introduction to the Cambridge Life Competencies Framework

There have been many initiatives to address the skills and competencies our learners need for the 21st century – each relating to different contexts. At Cambridge, we are responding to educators that have asked for a way to understand how all these different approaches to life competencies relate to English language programmes.

We have set out to analyse what the basic components of these competencies are. This is to help us create an underlying framework to interpret different initiatives.

We have identified six life competencies, which are linked to three foundation layers of the Framework.

THE CAMBRIDGE LIFE COMPETENCIES FRAMEWORK

Creative Thinking		Learning to Learn		Collaboration	
	Critical Thinking		Communication		Social Responsibilities

Emotional Development

Digital Literacy

Discipline Knowledge

The Learning Journey

The competencies vary depending on the stage of the learning journey - from preprimary through to learners at work.











We are developing Can Do Statements (see page 6) to describe what can be expected of a learner at each stage of learning for each competency. The Can Do Statements are phrased as what a learner should be able to do by the end of that stage of learning. We have started to develop Can Do Statements as descriptions of observable behaviour.

The Framework provides different levels of detail – from the broad Competencies to the specific Can Do Statement.

Competency

Core Area

Can Do Statement

Defining CRITICAL THINKING Competencies

Critical thinking refers to higher levels of thinking that learners need to enable them to think effectively and rationally about what they want to do and what they believe is the best action. It consists of identifying links between ideas, analysing points of view and evaluating arguments, supporting evidence, reasoning and conclusions.

We have identified three core areas within the area of Critical Thinking:

- Understanding and analysing links between ideas refers to a learner's ability to organise information from different sources through identifying patterns. Analysing information through comparison and contrast enhances a learner's understanding of the content and this understanding, coupled with comprehensive collection of information, helps them build up critical evaluation.
- Evaluating ideas, arguments and options is related to a learner's ability to judge which arguments, ideas or options they can rely on and which they should be sceptical about. This helps learners to identify and prioritise problems they are facing in education or at the workplace and consider ways to solve them. When facing more than one problem, they are able to see the links between them and identify the real cause. Mastering this core area helps learners establish an analytical framework to deploy strong arguments and advance their own points of view.
- Synthesising ideas and information is an on-going process which requires learners to construct different aspects of their ideas drawing from the ideas of others. It involves creative thinking that helps them generate new ideas.



CRITICAL THINKING Can Do Statements

In this section, we have provided some examples of Can Do Statements which detail what learners can be expected to do for each competency by the end of that stage of the learning journey. These Can Do Statements will vary in their suitability for learners in different contexts, and so are provided as a starting point in the development of a curriculum, programme or assessment system.

The Can Do Statements at each level generally assume that the learners have developed the skills at a previous stage of learning, although this is not true of the Higher Education and At Work stages, which are treated as being in parallel.

STAGE OF LEARNING	CORE AREAS	CAN DO STATEMENTS	
PRE-PRIMARY	Understanding and analysing links between ideas	 Sorts, arranges and describes objects by shape, size, colour, weight, texture and position. Explores different materials and media and decides what to use. Matches objects, people, letters, pronunciations and words. Identifies the difference between puzzles, games, and toys. 	
	Evaluating ideas, arguments and options	 Guesses words from illustrations in storybooks. Says whether or not they like a story, song or game. Recognises a problem (e.g. something doesn't work) and tells the teacher about it. 	
	Synthesising ideas and information	 Makes simple links and predictions in stories. Guesses the next thing that happens in a story and/or adds a new ending to a story. 	
PRIMARY	Understanding and analysing links between ideas	 Sorts, classifies and describes objects and activities according to key features (e.g. types of animal or transport). Identifies characters, setting, plots and themes in a story. Compares different types of information (e.g. looking for similarities and differences). Explains why things happened (e.g. identifying cause and effect in a story). Makes predictions and estimations from given information. Describes consequences of different potential actions of characters in a story. 	
	Evaluating ideas, arguments and options	 Judges whether something is true or not, and gives a reason. Explains why they believe or don't believe what a character says in a story. Identifies inconsistencies in stories. Adds details to stories. Describes problems in a situation given in a story (factual or fictional). Articulates preferences and can justify their choices. 	
	Synthesising ideas and information	 Solves simple word puzzles. Suggests possible reasons for problems described in a text. Compares two sets of information and points of view on the same topic (e.g. animals, transport or places). 	
SECONDARY	Understanding and analysing links between ideas	 Compares points and arguments from different sources. Distinguishes between main and supporting arguments. Identifies the basic structure of an argument. 	

STAGE OF LEARNING	CORE AREAS	CAN DO STATEMENTS
SECONDARY (CONTINUED)	Evaluating ideas, arguments and options	 Distinguishes between fact and opinion. Identifies evidence and its reliability. Identifies assumptions and inferences in an argument. Gives reasons for an argument's plausibility. Identifies problems in a proposed plan (e.g. to organise an event at school). Analyses causes and effects of problems. Examines possible solutions to a given problem and states how effective they are. Assesses strengths and weaknesses of possible solutions.
	Synthesising ideas and information	Selects key points from diverse sources to create a new account and/or argument.
HIGHER EDUCATION	Understanding and analysing links between ideas	 Summarises key points in a text or an argument. Identifies unstated assumptions and biases in an argument. Contrasts different points of view on a specific topic.
	Evaluating ideas, arguments and options	Checks clarity, relevance and fairness of different arguments and points of view. Recognises basic weaknesses in argumentation. Arrives at nuanced evaluations of ideas, arguments and options. Identifies problems to be addressed in a project relating to their area of study. Ranks problems in order of priority. Selects best options from a range of proposed investigative or experimentation procedures and justifies choices. Produces a systematic evaluation of different possible solutions to a problem, devising and referring to explicitly-stated criteria.
	Synthesising ideas and information	 Constructs a new argument or theoretical position from a synthesis of different sources. Relates the content of texts to known theories. Applies new evidence to existing theories.
AT WORK	Understanding and analysing links between ideas	 Identifies patterns in business and operational data. Summarises key points from business-related documents and presentations. Identifies assumptions underlying a speaker's or writer's argument (e.g. in a business proposal).
	Evaluating ideas, arguments and options	 Judges the strength of an argument, report or proposal (e.g. its significance and coherence). Evaluates the plausibility of explanations in an argument, report or proposal, e.g. the weight of evidence. Assesses the significance of implicit assumptions in an argument, report or proposal. Describes problems to be addressed in relation to specific work issues (e.g. products, services, internal systems, working practices). Selects an appropriate solution to a problem and justifies their choice. Defines the scope, purpose and workings of a particular course of action and explains potential impacts of changes. Evaluates the strengths and weaknesses of a particular point of view or proposal.
	Synthesising ideas and information	Identifies and accesses appropriate sources of knowledge and expertise in pursuit of solutions to problems.

6

Practical Guidelines for Teaching Critical Thinking Competencies

The English language classroom is a supportive environment in which learners have the opportunity to develop critical thinking skills. Historically, it has been a place characterised by a student-centred, communicative pedagogy, which values not only language acquisition but also the development of soft skills such as confidence, teamwork and collaboration. The English language classroom already offers many opportunities to develop critical thinking skills, for example through personalisation, idea sharing and task-based learning.

As the demand for critical thinking skills in universities and the workplace increases, the English language classroom should seek to build on this background and ensure that this competency is embedded within the curriculum. These skills have not only an instrumental value (for example, in helping learners do well in standardised English assessment tests such as *IELTS*), but also a social value, with learners developing increased awareness and empathy by noticing, understanding and managing different points of view. Moreover, a second language can provide a safe space for learners to explore ideas they may not have thought about before. Indeed, some learners who may be unwilling or afraid of expressing an idea in their own language may be more willing to do this in a second language.

Critical thinking is inherently linked to other competencies outlined in the Cambridge Life Competencies Framework. It encourages learners to consider different points of view and challenge their preconceptions, thus developing their creative thinking and ability to communicate and collaborate with others. It develops skills that will be vital for success in an unknown future, such as the ability to analyse options and make better decisions.



Suggestions for classroom practice

The ideas presented here are intended as a general indication of the types of activity that might develop this competency in the classroom, and are not a definitive list.

GENERAL SUGGESTIONS

Regardless of the age of learners, at the heart of critical thinking is the notion of asking questions. Learners should be encouraged to continually question the information they receive and the conclusions they come to. The teacher should push learners to deeper critical thinking by asking them questions, such as:

- Why is that your answer?
- How did you come to that answer?
- Do you think there could be another answer?

Teachers should genuinely listen to learners when taking feedback and respond accordingly, by properly evaluating their ideas and arguments, and in so doing show their learners that they too are critical thinkers (i.e. act as an effective model).

YOUNG LEARNERS

Young learners are naturally curious. As such, it is crucial that learners do activities which actively encourage this curiosity. To this end, it is important to create an atmosphere in the classroom which encourages learners to think critically. Teachers must ensure learners really listen to each other during speaking activities so they can ask effective questions, and in doing so, understand and analyse links between ideas.

The following are some classroom activities and strategies that teachers can use to promote critical thinking development:

Translanguaging

When teaching speaking, teachers should consider using 'translanguaging', where learners can 'mix and match' their first language with the target language (i.e. English). This practice, which is common in many multilingual societies, can help manage the problems that occur when the content of an activity is too linguistically challenging, and help learners in better understanding and analysing links between ideas. This should be seen as an intermediary stage, prior to learners being able to do the task entirely in the target language.

Storybooks

Storybooks can be a useful resource when developing critical thinking skills with young learners. When teaching reading with a storybook, more predicting could be encouraged – for example, guessing what the story is going to be about from its title, or from the pictures. This can continue throughout the story through dialogic reading practices, i.e. asking learners questions at key points.

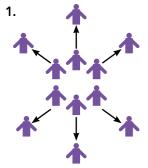


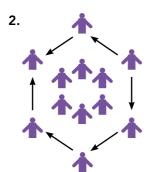
The doughnut method

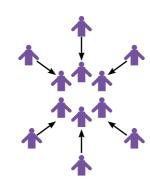
After a task is a complete, learners feed back to others on what they have learnt. This activity encourages task repetition, so that learners deepen their knowledge on the topic. Learners follow these steps:

- 1. Learners form two rings facing each other learners in the inner ring present their feedback to the learners opposite them;
- 2. After two minutes, learners in the outer ring move round to the right one place;
- 3. Learners in the outer ring then tell the learners opposite them what the previous learner said;
- 4. The process repeats itself several times.

Doughnut Method



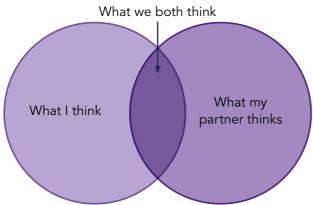




Visual organisers

These can be useful tools for learners to organise, evaluate and compare their thoughts and ideas. For example, a Venn diagram can be used to help learners to identify similarities and differences, as in the following example.

Compare your answers with a partner. Write your ideas in the left circle. Write your partner's ideas in the right circle. Then write things you agree on in the middle.



➢ Over to you...

- 1. Choose one of the example activities in this section and try it out with your class.
 - When planning the activity, you may find the guidance in the 'General suggestions' section helpful.
- Following the activity, reflect on what worked well and what could be improved next time, particularly focusing on the extent to which learners were able to develop their critical thinking skills.
- 2. Using your course book or other materials, choose a few activities that you may be using in your classes in the next week or so. Consider how you could make these activities more effective in developing critical thinking skills.

TEENAGE LEARNERS

Learners at this age are motivated by topics and activities that are relevant to them or that interest them. It is therefore important to personalise the learning. Teachers should try to link coursebook material to learners' actual lives, or to their educational institution. If what they are learning in the classroom really means something to the learners, or if they are more familiar with the subject matter, they are far more likely to be able to understand the concepts and make links between ideas.

The following are some classroom activities and strategies that teachers can use to promote the development of critical thinking skills:

Flipping the learning

Learners may benefit from flipping the learning. Learners (especially higher-level learners) can be given more responsibility and opportunity to develop the core 'knowledge' outside of classroom time (e.g. for homework). This will help them to synthesise ideas and information. It will also mean that time in the classroom can be maximised for aspects of language acquisition which learners are less able to do by themselves, for example arguing, discussing, comparing, challenging and debating.

Exploiting productive activities

Productive activities (i.e. involving speaking and writing) are good opportunities to develop critical thinking. For example, when teaching writing, a teacher could set the same essay question for the whole class, then take the learners through the following steps:

- 1) Student A writes the first paragraph and then passes it on to Student B.
- 2) Student B must read this paragraph and continue the writing.
- 3) After a few minutes, this is passed on to Student C, who continues the process.

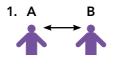
At every stage, learners are having to synthesise ideas and information as well as evaluate ideas, arguments and options. This can be a very effective and controlled method for developing writing, particularly for learners who are nervous about the idea of writing a long text by themselves.

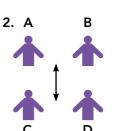
The snowball technique

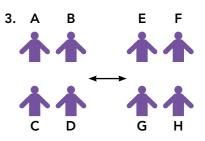
This is an effective way to take feedback from a whole class and get learners listening to each other. This is usually done after an individual task in which learners have come up with their own answers. Then, after getting into pairs, learners follow these steps:

- 1) Students A and B compare their answers and agree on one they are both happy with.
- 2) Students A and B share their answers with C and D (and vice versa), and repeat step 1.
- 3) Step 1 repeats with the group size doubling each time, until it gets to the whole class level.

Snowball Technique

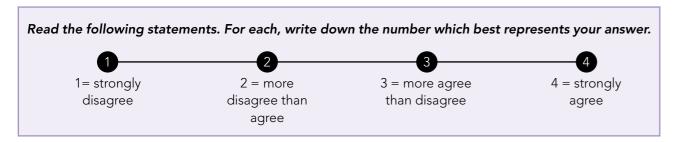






Ranking and scales

Scales, such as a Likert Scale, can be used to get learners to think more deeply about their attitudes and opinions, and compare their answers with others in a visual way, such as in the following activity:



➢ Over to you...

- 1. Choose one of the example activities in this section and try it out with your class.
- When planning the activity, you may find the guidance in the 'General suggestions' section helpful.
- Following the activity, reflect on what worked well and what could be improved next time, particularly focusing on the extent to which learners were able to develop their critical thinking skills.
- 2. Using your course book or other materials, choose a few activities that you may be using in your classes in the next week or so. Consider how you could make these activities more effective in developing critical thinking skills.

ADULT LEARNERS

Particularly relevant to learners at this age is the ability to think critically within academic contexts.

The following are some classroom activities and strategies that teachers can use to promote the development of critical thinking skills:

Diverse source material

In order to engage adult learners in critical thinking activities, teachers could provide them with opportunities to see issues from multiple perspectives. Teachers should provide source material (or get learners to find material) which provides rich, diverse, multi-faceted input, not just from one perspective, but from multiple perspectives. This will learners develop the skill of evaluating ideas, arguments and options, as well as synthesising ideas and information.

It may be relevant to be more explicit when teaching critical thinking skills to adults. When learners have done an activity where critical thinking skills have been applied, teachers should talk about it and get learners to reflect on what they have done. When taking feedback, teachers should not only be asking for the correct answer, but how learners got to that particular answer.

Information gap activities

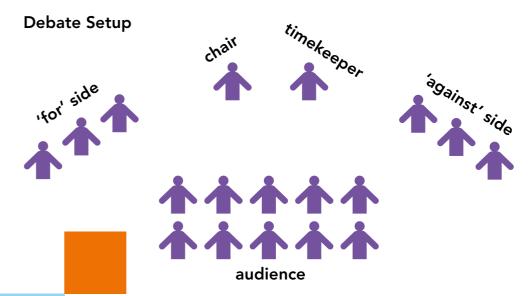
When teaching listening, teachers could do more 'information gap' activities, where the information which learners receive is restricted. For example, an activity that uses video might work in the following way:

- 1) The class is split into two groups. Group 1 watches the first half of a video, while Group 2 watches the second half. Alternatively, Group 1 could watch a video with the sound off, while Group 2 listens only.
- 2) Learners from Group 1 then pair up with learners from Group 2. In their pairs, they must work to reconstruct and retell the whole scenario from the video.

These kinds of tasks place more responsibility on learners to become active listeners and engage in collaborative work with their classmates.

Class debates

Debates are an authentic way of getting learners to listen actively to their peers and consider arguments from different viewpoints, in order to make informed decisions. Learners are divided into different roles, e.g. speaker, timekeeper, those debating 'for', those debating 'against', and the audience (who will ultimately vote on a result). Learners then debate a given topic. The classroom can be set up in the following way:

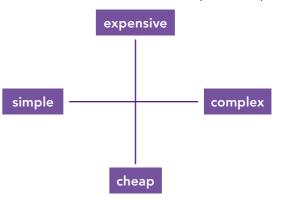






Visual diagrams

A diagram, such as a cross-diagram in the example below, can be used for learners to make more complex evaluations, e.g. the strengths and weaknesses of solutions to a particular problem.



➢ Over to you...

- 1. Choose one of the example activities in this section and try it out with your class.
 - When planning the activity, you may find the guidance in the 'General suggestions' section helpful.
 - Following the activity, reflect on what worked well and what could be improved next time, particularly focusing on the extent to which learners were able to develop their critical thinking skills.
- 2. Using your course book or other materials, choose a few activities that you may be using in your classes in the next week or so. Consider how you could make these activities more effective in developing critical thinking skills.



Examples of Activities Practising Critical Thinking Competencies

PRIMARY

Super Minds Level 6, page 75, ISBN 9781107458291

Core Area: Evaluating ideas, arguments and options

Can Do Statement: Describes problems in a situation given in a story (factual or fictional).

'What's this?' asked Phoebe, looking at a machine that looked like a big egg. 'That's my amazing hairdressing machine,' said the professor. 'Choose any style or colour, then sit under it and in five seconds the machine will do your hair for you. Give it a go. You'll love it!' 'Erm, no thanks,' answered Phoebe. 'I like my hair the way it is.'

'Hey, professor?
What happens
if I pull this?'
asked Patrick,
who was standing
next to another
invention. 'Don't touch

that!' shouted the professor. 'That machine isn't finished yet.' Too late! The lever was already down. A yellow light started glowing by the machine. 'Now that's strange,' said the professor. 'I've no idea what that is.' 'But we know what it is,' said Phoebe. 'Goodbye, professor.' The children walked into the light. They were gone in a flash.



Eook at the pictures and answer the questions.



1 What goes wrong with this?



What goes wrong with this?



Who pulls this lever?



What goes wrong with this?



Why doesn't Phoebe want to use this?



What does this last machine do?



What tool does the professor need to fix these problems?









Reading for pleasure

SECONDARY

Talent Level 1, page 105, ISBN 9781108465274 Core Area: Evaluating ideas, arguments and options

Can Do Statement: Gives reasons for an argument's plausibility.

PRACTICE

- 2 [3.02] Read and listen to the extract. Do you agree with Thomas Gradgrind's view of education? Why / Why not?
- 3 Decide if the sentences are true (T) or false (F). Correct the false ones.

There are only boys in the class.

2	Mr Gradgrind wants his own children to learn facts.	Т
3	The schoolroom is very colourful.	Т
4	Mr Gradgrind keeps touching the schoolmaster.	Т
5	Mr Gradgrind smiles at the children.	Т
6	Mr Gradgrind has a musical voice.	Т
7	There is some hair on Mr Gradgrind's head.	Т
8	The other people in the classroom do not speak.	Т

4 Look at the picture of Tom Sawyer. Where is he? Do you think he likes school? Why / Why not?



- 5 Listen to Tom Sawyer talking about school and answer the questions.
- 1 What does Tom think of school? Why does he think this?
- 2 Why does Mr Dobbin say, 'Tom Sawyer! Is that you again?'
- **3** Would Tom like to be a better student?
- 4 Why is school not all bad for Tom?
- 5 Does Becky like Tom?
- 6 How does Tom spend his time in class now?
- 6 Choose one of the following tasks.
 - 1 You are a pupil who listened to Mr Gradgrind. Tell a friend in an email what he looks like, what he said and what you think of him.
 - 2 What are the advantages and disadvantages of learning outside the classroom? Can you name any examples of this?
 - 3 Find out about a novel that talks about school and education. Does it present a positive or negative image? Present your ideas to the class.



- 7 Critical thinking Tick (✓) the statements you do not agree with and explain why.
 - 1 'Learning facts like historical dates or the periodic table is pointless for today's children all the facts they need they can find at the touch of a button.'
 - 2 'Teaching children to write with pens and paper is vitally important. Everyone needs to be able to write'
 - 3 'Schools should concentrate on teaching skills that are useful for future jobs. Anything else is wasting their time.'
- 8 PAIRWORK Look at the list of books and films. Do you already know these works? What do you know about them?
- The Catcher in the Rye (1951)
- Lord of the Flies (1954)
- To Kill a Mockingbird (1960)
- The Breakfast Club (1985)
- Dead Poets Society (1989)
- Moonrise Kingdom (2012)
- Boyhood (2014)
- 9 RESEARCH Choose one of the works above and find out:
 - 1 What happens to the young characters in them? Are their experiences positive or negative or both?
 - **2** What do they learn from their experiences?
 - **3** Is there a happy or sad ending?



- Planning and prioritising (ex 1)
- Identifying links and relations (ex 7)
- Communicating (ex 8)
- Acquiring and interpreting information (ex 9)

Literature Skills 1 105

16 17

ADULT

Evolve Level 4, page 124, ISBN 9781108405317

Core Area: Understanding and analysing links between ideas

Can Do Statement: Contrasts different points of view on a specific topic.

12.4

MAN'S BEST FRIEND?

LESSON OBJECTIVE

write a pros and cons analysis about keeping pets









1 LISTENING

- A PAIR WORK Look at the pictures. What are the dogs doing in each picture? What kinds of relationship do these animals have with people?
- B 12.53 Listen to a debate about people and their dogs. Who mentions the dogs in the pictures, Kenan or Lucia? What do they say about them? Are their opinions positive or negative?
- C 4) 2.54 PAIR WORK LISTEN FOR EXAMPLES Both Kenan and Lucia use examples to support their arguments. Listen to the extracts and write the phrases you hear to introduce examples.

1 _	For instance,	
2		
3		
4		
5		
5		

D PAIR WORK THINK CRITICALLY Who do you think made a stronger case, the affirmative side (Kenan) or the opposition (Lucia)? Why? What was the strongest point in their argument?

We liked Lucia's argument, but her point about service dogs wasn't relevant. The topic is about pets.

E Think about your culture and its attitude towards dogs. What is their role in society? Do you agree with that role? Why or why not? For ideas, watch Alessandra's video.



Do you agree with Alessandra?



Further Reading

For more information on this topic, please see:

Anderson, L. W., & Krathwohl, D. R. (2001). A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives. New York: Longman.

Black, B. (2008). Critical thinking – a definition and taxonomy for Cambridge Assessment: supporting validity arguments about critical thinking assessments administered by Cambridge Assessment. Paper presented at 34th International Association of Educational Assessment Annual Conference, 9th September 2008, Cambridge.

Butterworth, J., Thwaites, J., & Thwaites, G. (2008). *Thinking skills*. Cambridge: Cambridge University Press.

Dewey, J. (1933). How we think: a restatement of the relation of reflective thinking to the educative process.

Boston: DC Heath and Company.

Ennis R.H. (2015) Critical thinking: A streamlined conception. In M. Davies & R. Barnett (Eds.) *The Palgrave handbook of critical thinking in higher education*. New York: Palgrave Macmillan.

Fisher, A. & Scriven, M. (1997).

Critical thinking: Its definition and assessment. Norwich, UK: Centre for Research in Critical Thinking.

Fisher, A. (2011). *Critical thinking: An introduction* (2nd ed.). Cambridge: Cambridge University Press.



You can find information about the other competencies in the Cambridge Life Competencies Framework at cambridge.org/clcf

- ✓ Collaboration
- ✓ Communication
- ✓ Creative Thinking
- ✓ Critical Thinking
- ✓ Emotional Development
- ✓ Learning to Learn
- ✓ Social Responsibilities