The ABC-model examples

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The ABC-model

The ABC of differentiated teaching and learning		A Remembering, comprehension	B Application	C Analysis, synthesis, evaluation
Important: consider which of the perspective(s) that would be relevant for thinking of the theme or subject of the teaching	The intellectual/cognitive perspective	Knowledge described as being able to know, recall and demonstrate various types of knowledge as a basis for action <u>Competence:</u> Being able to understand information and remember it. Being able to understand the meaning, read facts and predict consequences. Has basic knowledge of the theme/subject/area	Knowledge described as being able to use and apply the knowledge to solve any given problem <u>Competence:</u> Being able to use and apply the context of the teaching with knowledge or information obtained in others situations and account for the relation between knowledge from different situations	Knowledge described as being able to transfer knowledge and use it to generate new knowledge (requires analysis, synthesis and evaluation skills) <u>Competence:</u> Being able to independently reorganize knowledge and adapt it to other contexts
	Communication	Knowledge described as remarks related to certain situations <u>Competence:</u> Being able to express themselves on some matters, own emotions, knowledge and impressions from their own perspective	Knowledge described as being able to express themselves addressed to different target groups or receivers <u>Competence:</u> Being able to connect and adapt own linguistic expressions to the linguistic expressions of other people in the group	Knowledge described as discursive reflections or thoughts <u>Competence:</u> Being able to acknowledge own as well as others positions and connect linguistic expressions and context with the position and expressions of others in the group
	The methodical and creative perspective	Knowledge described as reproduction (being able to repeat or copy a text) <u>Competence:</u> Being able to solve an already learned type of assignment using other variables.	Knowledge described as reconstruction <u>Competence:</u> Being able to process and adapt changed structural connections and situations Being able to use a method in a new way or to choose the most suitable method at any given assignment	Knowledge described as transformation <u>Competence:</u> Being able to process unknown types of assignments and problems on their own (identify the type of

The ABC-model

	The personal and social perspective	Reactive knowledge <u>Competence:</u> When requested being able to participate in solving of different assignments and problems and acknowledge own contributions to the solutions	Active knowledge <u>Competence:</u> Being able to work with assignments and problem on their own initiative	Constructive knowledge <u>Competence:</u> Being able to coordinate own contributions with others' contributions in solving assignments and problems

Template – ABC-method

The ABC-method – template

The ABC of differentiated teaching and learning		A Remembering, comprehension	B Application	C Analysis, synthesis, evaluation
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	Communication			
	The methodical and creative perspective			
	The personal and social perspective			

An example science 3. grade

	A	B	C
The intellectual/ cognitive perspective	Being able to follow the instructions of an experiment	Being able to construct a hypothesis of the experiment based on the instructions given for the experiment	Being able to construct an experiment and a hypothesis based on the available materials
Communication	Being able to explain what they are doing	Being able to use the right technical terms in relation to the experiment	Being able to use the right technical terms in relation to the experiment and to communicate in an easy understandable speech what they have done
The methodical and creative perspective	Write down what they have done during the experiment and the result of the experiment	Being able to write a report of the experiment following an instruction on how to write a report	Being able to write a report based on the experiment and hypothesis including relevant theory
The personal and social perspectiv e	Working together with a partner during the experiment and together write down what they have done and what the results are	Working together with a partner during the experiment and write an individual report	Working together with a partner during the experiment and write a report individually including relevant theory and show how the theory

Science 3. grade

- Divide the class into small groups focusing on the academical level of the students
- Hand out 3 different kinds of copies depending on the groups academical level
- The class work with the same experiment – get a bulb to light up
  - Difference in how much help they get
  - Difference in how to report their results

Science grade 6

- Aim: to find out whether a material is acid or base
- A-level:
  - Hand out a pH-scale
- B-level:
  - Find out without help from a pH-scale
- C-level:
  - Expect the students to explain the difference between acid and base

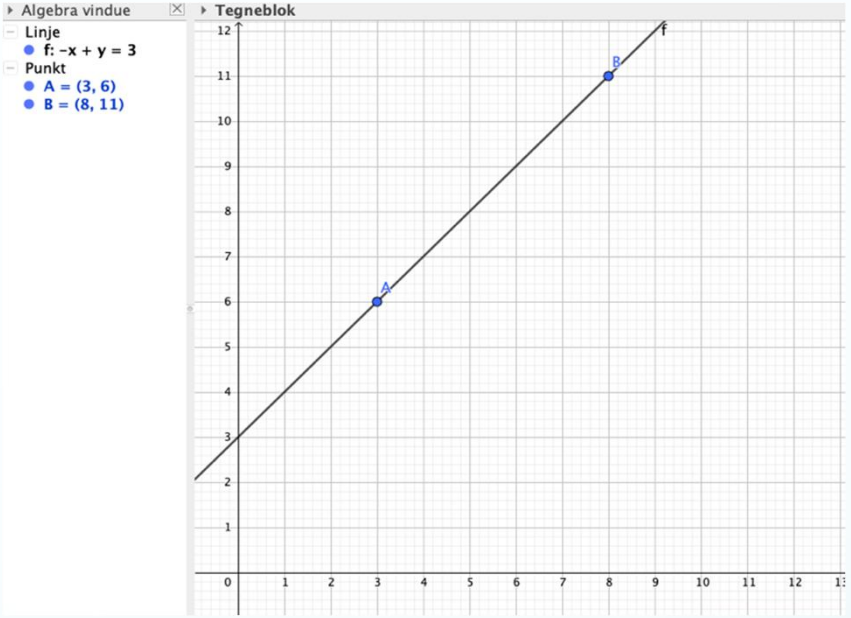
Math grade 9

	A	B	C
The intellectual/cognitive perspective	- Being able to plot in two coordinates and draw a graph	- Being able to plot in two coordinates and draw a graph - Being able to formulate a equation from the graph	- Being able to formulate an equation from two coordinates - Being able to compare the equation with the drawn graph from the two coordinates
Communication	- Being able to explain what they have done	- Being able to explain what they have done and why	- Being able to explain what they have done and their calculations
he methodical and creative perspective			
The personal and social perspective			

Equations apple level

Plot in the coordinates in Geogebra and draw the graph

- 1) (3 ; 6) and (8 ; 11)
- 2) (2 ; 5) and (4 ; 9)
- 3) (2 ; 3) and (4 ; 7)
- 4) (14 ; 23) and (37 ; 49)
- 5) (−25 ; 11) and (16 ; −7)
- 6) (2 ; 2) and (6 ; 4)



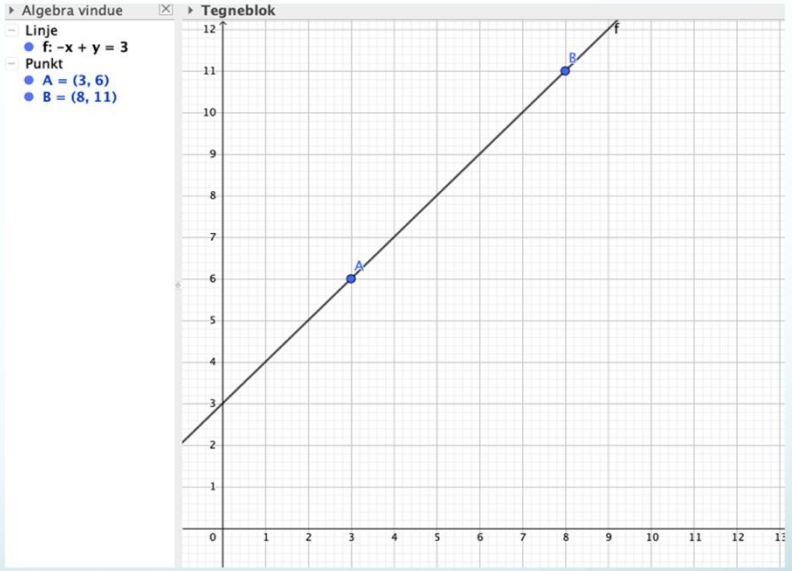
Equation banana level

Plot in the coordinates in Geogebra and draw the graph

- 1) (3 ; 6) and (8 ; 11)
- 2) (2 ; 5) and (4 ; 9)
- 3) (2 ; 3) and (4 ; 7)
- 4) (14 ; 23) and (37 ; 49)
- 5) (−25 ; 11) and (16 ; −7)
- 6) (2 ; 2) and (6 ; 4)

The formula in Geogebra:

-x + y = 3 Û y = x + 3 - the formula: y = ax + b

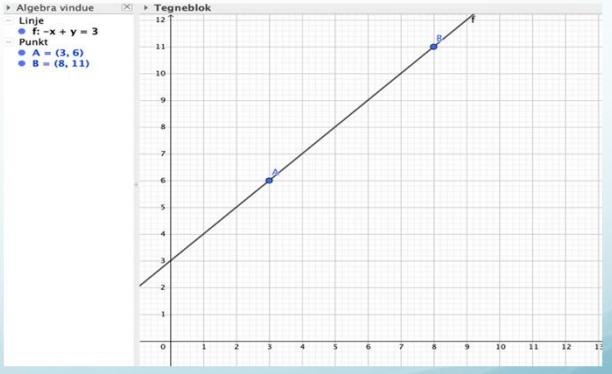


Equation cherry level

- 1) (3 ; 6) and (8 ; 11)
- 2) (2 ; 5) and (4 ; 9)
- 3) (2 ; 3) and (4 ; 7)
- 4) (14 ; 23) and (37 ; 49)
- 5) (−25 ; 11) and (16 ; −7)
- 6) (2 ; 2) and (6 ; 4)

$$a = \frac{y_2 - y_1}{x_2 - x_1}$$
$$b = y_1 - a * x_1$$

- (3 ; 6) and (8 ; 11)
- $a = \frac{11-6}{8-3}$ Û a = $\frac{5}{5}$ Û $a = 1$
- $b = 6 - 1 * 3$ Û $b = 6 - 3$ Û $b = 3$
- $f(x) = x + 3$



Danish/Swedish grade 6/7

	A	B	C
The intellectual/cognitive perspective	- Being able to recognize some of the characteristics of fairy tales - Being able to identify and describe the main character in the fairy tale - Being able to repeat/retell the fairy tale	- Being able to recognize the characteristics of fairy tales - Being able to describe and interpret the settings of the fairy tale (time, surroundings, development of the characters etc.)	- Compose a fairy tale based of the characteristics of the fairy tale of "The Ugly Duckling" but with other characters in the fairy tale and in another setting of time and surroundings
Communication	- Read the retelling of the fairy tale	- Illustrate the chronological progress in the fairy tale and the development of the main character in the fairy tale	- Compose a new fairy tale and read it aloud with dedication in front of the class
The methodical and creative perspective	- Retell the fairy tale - Describe the main character in the fairy tale	- Choose the best way to show the chronological progress in the fairy tale showing the development of the main characters	- Write a new fairy tale based on "The Ugly Duckling"
The personal and social perspective	- Being able to work with a partner in the retelling of the fairy tale	- Being able to work with a partner and being able to identify own contributions to the work	- Being able to work with a partner and coordinate own contributions with others' contribution

What do I do?

- Working closely with my colleagues in the other 9 grades
- Making a plan for a course – making 3 different levels of achievement
- Day-to-day-planning
  - Looking at the assignments
    - Differentiating in what assignments you have to do
    - Differentiating in the level of calculations and explanations
- Knowing your students

What can you do?

Start slow

- Try a single lesson
  - Differentiate with numbers of assignments
  - Differentiate which assignments they start at
  - Differentiate with the way they present their work
  - Differentiate the amount of information they get for the assignment

Plan a course with colleagues with differentiated levels of achievement

- Clear in the expectations of the students
  - Does that make a difference for the students

What can you do?

Plan a course with colleagues with differentiated levels of achievements

- Divided into groups depending on academical level
- Mixed groups with differentiated expectations

Plan a course with colleagues with differentiated levels of achievements

- Let them choose the level themselves (with guidance)
- Ok to change level during the course as long as you do your best

Science 3

- Light a light bulb
  - 3 different ways of doing the experiment
  - Who will do level A – B – C
  - 5 minutes to do the experiment
  - Plenum

Science 6

- Test the different samples for pH-value
  - rank them with acids to the left and base to the right

- pH-paper
- Red cabbage indicator

Math

- Can you think of other examples of how to do ABC-planning in Math?

Danish/Swedish

The fairy tale ”The Ugly Duckling”

- 1-2 lessons
  - How would you plan the lessons?
  - Focus on how the students should work with the fairy tale
    - Read aloud for each other?
    - Listen to the fairy tale?
    - Write a new fairy tale?

Danish / Swedish

- The example is fairy tales

- Can you think of another theme you can use for ABC-planning?