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References


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Kruglanski, A. W., & Kopetz, C. (2009). What is so special (and nonspecial) about goals? A view from the cognitive perspective. In G. B. Moskowitz & H. Grant (Eds.), The psychology of goals (pp. 27-55). New York: The Guilford Press.


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### Appendix 1: Kate’s decision summary (chapter 2)

<table>
<thead>
<tr>
<th>Decision</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use a context-based approach</td>
<td>Let the students understand what biology is really about.</td>
</tr>
<tr>
<td></td>
<td>Create a good learning atmosphere.</td>
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<tr>
<td>Start at the students’ level</td>
<td>They themselves are organisms too, otherwise they forget that. It is</td>
</tr>
<tr>
<td></td>
<td>important they realize they are also part of it.</td>
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<tr>
<td>Use a well-structured assignment, with adequate control</td>
<td>Otherwise the students cannot find solutions; they will not reach a</td>
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<tr>
<td></td>
<td>thorough understanding.</td>
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<tr>
<td>Students have to have learned the concepts from the book in advance</td>
<td>Otherwise they do not know in what direction to think, they need</td>
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<td></td>
<td>thinking tools and a conceptual framework.</td>
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<td></td>
<td>It is good to have the concepts reappear within different contexts,</td>
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<td></td>
<td>this enables transfer.</td>
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<td>The situation does not need to be authentic</td>
<td>Such a situation is never really authentic. And what is real to them</td>
</tr>
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<td></td>
<td>is tomorrow’s test.</td>
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<tr>
<td>They need to use the book during the lesson</td>
<td>- If I give them a book but do not use it during the lessons, I think</td>
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<td></td>
<td>it will make students feel unsatisfied.</td>
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<td></td>
<td>- Students will feel reassured if they know how the lesson relates to</td>
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<td></td>
<td>the book.</td>
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<tr>
<td>The topic of the lesson will be biodiversity</td>
<td>That is really difficult.</td>
</tr>
<tr>
<td>Context taken into consideration, but rejected: holiday</td>
<td>Relation to biodiversity is too weak.</td>
</tr>
<tr>
<td>Context taken into consideration, but rejected: recreation</td>
<td>People like to recreate in areas where biodiversity is high, but 12-</td>
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<td></td>
<td>year-olds do not necessarily feel that way.</td>
</tr>
<tr>
<td>Context taken into consideration, but rejected: investigate soil</td>
<td>This is not a context from students’ daily lives.</td>
</tr>
<tr>
<td>specimens with many, and with few different animal species</td>
<td></td>
</tr>
<tr>
<td>Context taken into consideration, but not chosen: compost heap</td>
<td>This relates to nutrient cycles, we have already covered that.</td>
</tr>
<tr>
<td>Context taken into consideration, and chosen: students’ own house</td>
<td>- Accords with the rule always to start at the level of students’ lives</td>
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<tr>
<td></td>
<td>- It fits the concept “habitat” nicely</td>
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<tr>
<td>Student activity: draw your own house</td>
<td>This is a creative activity; creative activities have proven to be</td>
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<td></td>
<td>successful in the past.</td>
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<tr>
<td>The assignment is worked out on a worksheet</td>
<td>The worksheet coaches the students through their thinking processes,</td>
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<tr>
<td></td>
<td>because the teacher cannot coach all students at the same time.</td>
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<tr>
<td>Second context chosen: the house of an animal</td>
<td>- Apply the concept “habitat”</td>
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<td></td>
<td>- Thinking from the perspective of the organism is in accordance with</td>
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<td></td>
<td>the biological way of thinking, which all revolves around the issue</td>
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<td></td>
<td>how animals manage to survive.</td>
</tr>
</tbody>
</table>
Students are assigned a specific organism, they cannot choose for themselves - It would be fun to have them choose for themselves, but then they would choose their pets, who live in a house, instead of in a park.
- Many different organisms are needed in order to end up with the concept of “biodiversity”

All animals chosen live in the park nearby school Students know this park, and would be able to encounter these animals there, which would help them recognize the biology in the real world.

Students write the name of their animal on a note, and if possible stick it in their natural habitat on the map of a park - Enables students to understand the link between the concept of habitat and the concept of biodiversity.
- Motivates students to think about nature development.

A final assignment in which students practice the use of the concept of biodiversity - Promotes further understanding of the concept of biodiversity.

Two lessons, instead of one The lesson as designed does not fit in one session. Having two sessions has the additional advantage of making it more likely that students gain lasting knowledge.