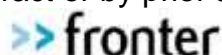


## Theme: Question database

### Fronter 82

This document was produced by Fronter as – [www.fronter.com](http://www.fronter.com)  
It can only be copied or distributed electronically  
according to contract or by prior arrangement with



#### New additions in volume 82 of this document

- There are no changes in this guide

Theme: Question database .....	1
Introduction .....	1
The tool Question database .....	2
The tab Categories .....	3
Structure and Rights .....	5
The tab Question database .....	6
Adding questions .....	6
Getting questions .....	7
Creating a test with questions from a question database .....	11
Report .....	15
Version control .....	16
QA Revision .....	16

## Introduction

This document deals with the database of questions in Fronter. The examples will attempt to illustrate well-known problems, and we hope you will nod in recognition to a lot of what is introduced here.

Fronter is continuously developing and improving. There may therefore be some discrepancies between documentation and application. This guide is written to Fronter 82.

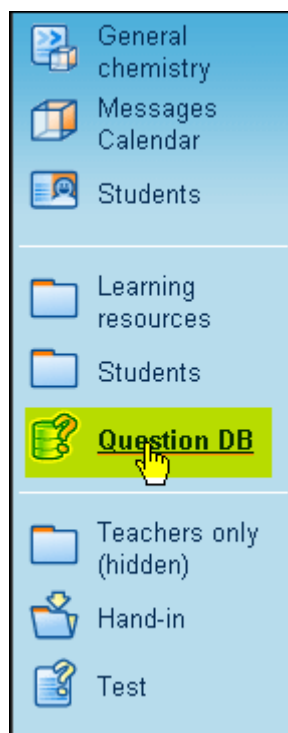
We hope you find this guide useful.

Oslo, August 2008  
Steinar Hov/Ingun Vaglid

## The tool Question database

The database of questions is a tool where teachers can create good questions that they wish to share with other teachers. The questions can be put into categories according to e.g. subjects/themes, learning goals or levels of difficulty. The questions can be copied or linked to tests that are used in other rooms, for instance the pupil's subject room or classroom.

This tool may be placed in a collaboration room for teachers



or in the personal tool list if at first you wish to create questions that are only accessible to yourself, and then at a later stage move them to a room that is accessible to all.

The purpose is to have a database for questions/exercises that can be brought into tests. Since the questions can also be attached to a category, such a database will in time become a considerable source for various exercises.

If the tool is placed in a room it means that all with at least *reading rights* in the room will have access to all the questions and answers. In an “ordinary” situation it will be natural to create various collaboration rooms for *teachers* for this purpose. They can then contribute to or pick out questions that they can use in their own tests.

One click on this tool gives us this display:

Question DB Category Add question Get questions

Search:  in category

Status:  Draft (0)  Active (0)  Deactivated (0)

[Advanced search](#)

---

Total number of questions: 0 Showing: 0 - 0

This question database does not contain any questions. To fill it with content you can either [add new questions](#) or [get existing questions](#).

Here you will find two page tabs: In the actual *question database* you will have all the questions, whilst in *Category* all the categories will be created as a folder structure to organise all the questions.

## The tab Categories

Let us create some relevant categories:

Question DB **Category** New category

[Expand all](#)

All Edit Delete

Description: N/A  
 Created by: Steinar Hov,  
 Created: 2006-06-16  
 Last updated: 2006-06-16

Here you can go ahead and define categories with corresponding sub categories:

Question DB **Category** New category

[Expand all](#)

- Chemistry
  - Organic chemistry
    - Synthesis
    - Inorganic chemistry
    - Chemistry of plastics

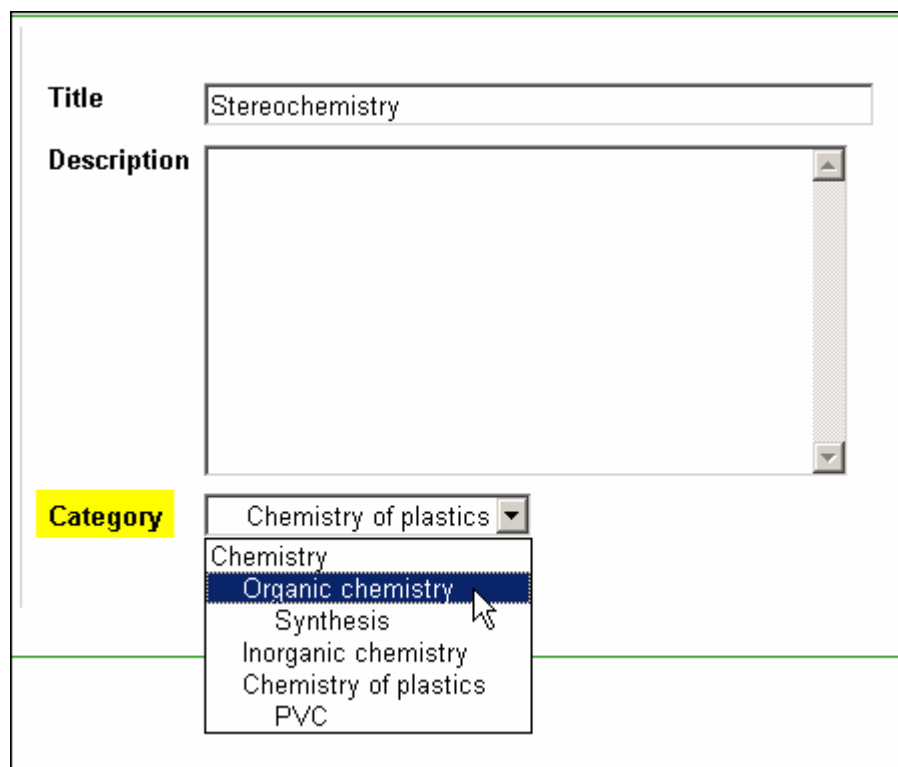
**Title**

**Description**

**Category**

Above is an example of how to create a sub category: First you select (highlight) the category to which you are creating a sub category. Then you click on *New category*.

If you clicked on the wrong “mother category” to start with you can change this by selecting from the drop down menu at the very bottom:



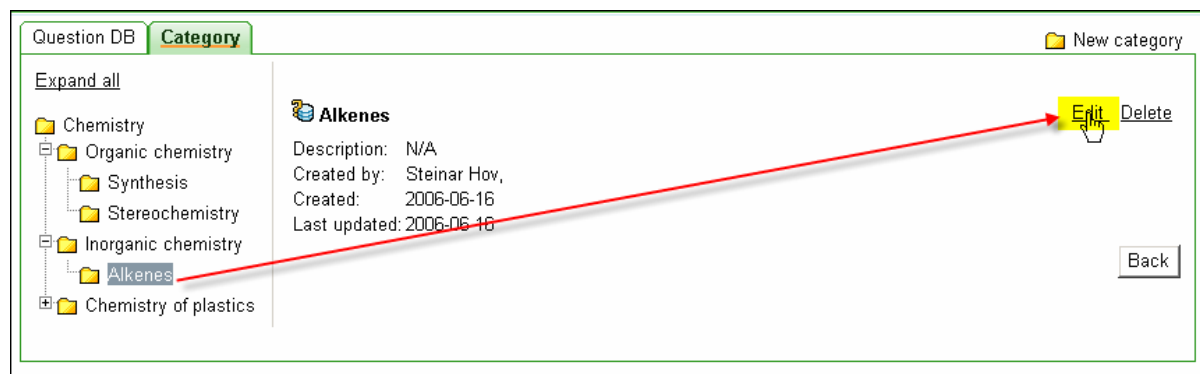
**Title** Stereochemistry

**Description**

**Category** Chemistry of plastics

- Chemistry
- Organic chemistry
- Synthesis
- Inorganic chemistry
- Chemistry of plastics
- PVC

Tip: Creating a sub category at the wrong level is easily done, especially if you create several in a row. You can then simply move it to the correct level by selecting *Edit*:



Question DB **Category** New category

[Expand all](#)

- Chemistry
  - Organic chemistry
    - Synthesis
    - Stereochemistry
  - Inorganic chemistry
    - Alkenes
  - Chemistry of plastics

**Alkenes**

Description: N/A  
Created by: Steinar Hov,  
Created: 2006-06-16  
Last updated: 2006-06-16

[Edit](#) [Delete](#)

[Back](#)

In this case the category *Alkenes* was placed on the wrong level; it should not have been a sub category under *Inorganic chemistry*, but under *Organic chemistry*. The option *Edit* enables us to move the category:

**Title**

**Description**

**Category** 

- Chemistry
- Organic chemistry
- Synthesis
- Stereochemistry
- Inorganic chemistry
- Alkenes
- Chemistry of plastics
- PVC

A structure that has been started which encompasses several subjects can look like this:

Question DB **Category** New category

Expand all

- Chemistry
  - Organic chemistry
    - Synthesis
    - Stereochemistry
    - Alkenes
  - Inorganic chemistry
    - Metals
      - Noble metals
    - Gases
      - Inert gases
    - Liquids
  - Chemistry of plastics
    - PVC

**Chemistry** Edit Delete

Description: N/A  
 Created by: Steinar Hov,  
 Created: 2006-06-16  
 Last updated: 2006-06-16

Back

## Structure and Rights

Before all the categories are created you ought to consider how you want to use the question database: do you want one for each subject, or is it to be a collective database. Regardless of the model you choose you must remember that those who are to have access to the database also must have access to the room that it is stored.

Furthermore, those with *reading* or *writing* rights in the room will have access to all the questions. However, you must have *delete* rights to be able to make the questions public and thus be able to use them in tests. Thus, somebody with writing rights can create questions but they are not accessible to others until somebody with delete or owner rights in the room has approved them and chosen to publicise them.

## The tab Question database

Once the categories have been created for a theme/subject the questions can either be created straight away or picked from existing tests, from a text file or from an existing question database.

## Adding questions

From the tab *Question database* you select *Add questions*:

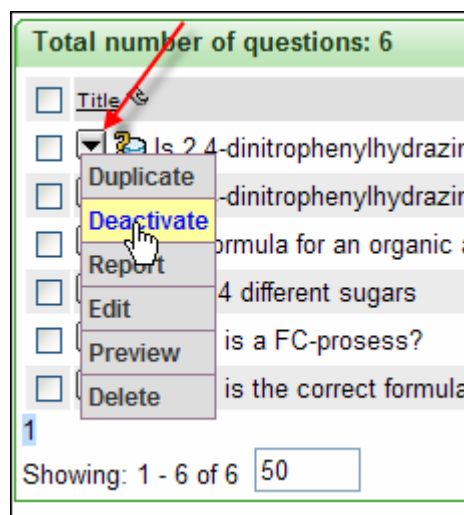
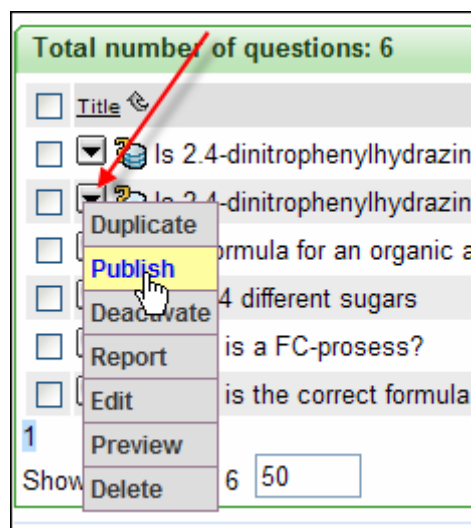
You will now get a picture that you ought to recognise from "normal" tests in Fronter:

There are, however, two additional fields for settings:

**Status:** If a question has status *Draft* it is not possible to bring it into any test. This is possible only if you select *Open*. In the same way you can remove questions from the active list by selecting *Deactivate*.

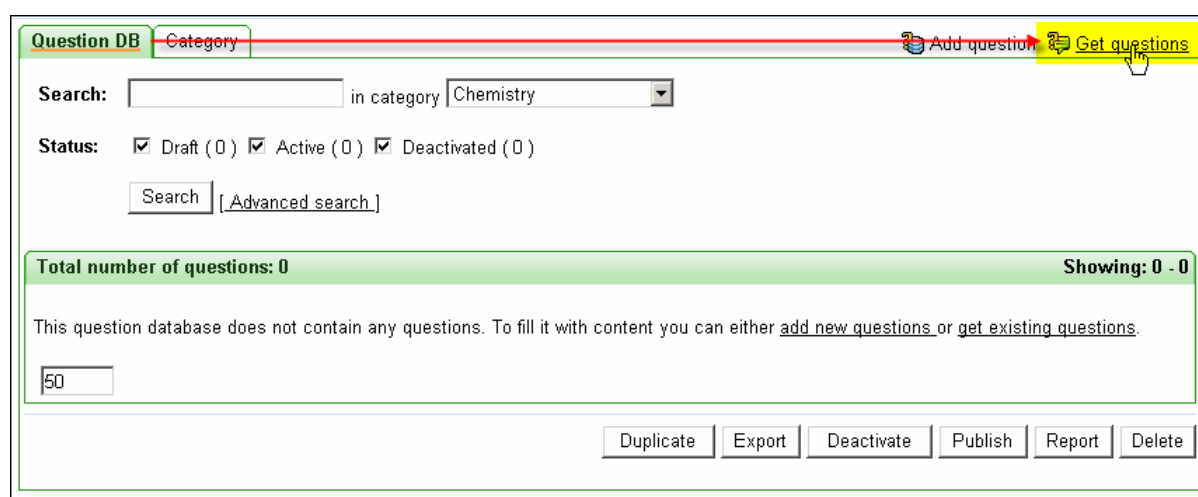
**Category:** Here you select the category the question is to be attached to.

Depending on the status of the question the shortcut menu changes:

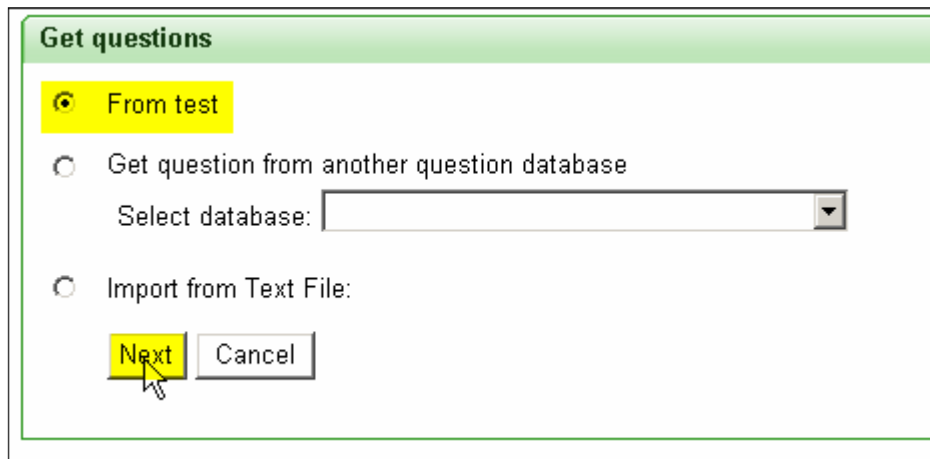


## Getting questions

In addition to creating a question directly in the question database you can pick existing questions from a test or another question database. The starting point is *Get questions* in the upper right hand corner:



## Getting questions from another test



**Get questions**

From test

Get question from another question database  
Select database:

Import from Text File:

This option will take you to a dialogue box where you must enter the room and tool/folder where the test is placed:

**Get questions**

Choose room: **Introduction to General chemistry**

Select:

- Learning resources3
- Students
- Teachers only (hidden)
- Test**

Choose folder:

- Test
  - Resources to The Elements (Hidden)
  - Evaluation\_elements (Customised) (Hidden)
  - Test yourself\_elements (Customised) (Hidden)
  - Tests - The Elements (Customised)
    - Pool (Customised) (Hidden)

Choose a test:

Name	First Name Surname	Last Updated	File size
Test yourself	Steinar Hov	2006-01-11	0 bytes
<b>Organic chemistry</b>	Steinar Hov	2006-01-23	0 bytes
Question pool	Steinar Hov	2006-01-23	0 bytes
Bits and pieces	Steinar Hov	2006-01-23	0 bytes
Evaluation	Steinar Hov	2006-01-23	0 bytes

When you select the test itself all the questions will appear and you place a tick for those you want to get for the question database. You also have to choose category:

**Get questions**

<input checked="" type="checkbox"/>	Heading	Answer types
<input checked="" type="checkbox"/>	Is 2,4-dinitrophenylhydrazin an organic compound?	Radiobuttons
<input checked="" type="checkbox"/>	What is a FC-process?	Text area
<input checked="" type="checkbox"/>	Type 4 different sugars	Text area
<input checked="" type="checkbox"/>	What is the correct formula for nylon?	Radiobuttons
<input checked="" type="checkbox"/>	The formula for an organic acid contains	Radiobuttons

Copy to category: **Organic chemistry**

**Get questions**

The questions that are picked will have the status *Draft*, which can easily be changed:

Total number of questions: 5							Showing: 1 - 5
<input type="checkbox"/>	Title	Status	In use	Created	Created by	Type:	
<input checked="" type="checkbox"/>	Is 2,4-dinitrophenylhydrazin an organic compound?	Draft	No	2006-06-28	Steinar Hov	Radiobuttons	
<input checked="" type="checkbox"/>	The formula for an organic acid contains	Draft	No	2006-06-16	Steinar Hov	Radiobuttons	
<input checked="" type="checkbox"/>	Type 4 different sugars	Draft	No	2006-06-16	Steinar Hov	Text area	
<input checked="" type="checkbox"/>	What is a FC-process?	Draft	No	2006-06-16	Steinar Hov	Text area	
<input checked="" type="checkbox"/>	What is the correct formula for nylon?	Draft	No	2006-06-16	Steinar Hov	Radiobuttons	

Showing: 1 - 5 of 5

### Getting questions from another question database:

You can also get questions from another database by entering it in the dropdown menu:

**Get questions**

From test  
 Get question from another question database  
 Import from Text File:

Select database:

All the questions in the selected database will then appear and you mark the ones you want to copy and correct category:

Total number of questions: 2							Showing: 1 - 2
<input type="checkbox"/>	Title	Status	In use	Created	Created by	Type:	
<input checked="" type="checkbox"/>	Is acetic acid an organic compound?	Active	No	2006-08-04	Steinar Hov	Radiobuttons	
<input checked="" type="checkbox"/>	Is carbondioxide an organic compound?	Active	No	2006-08-04	Steinar Hov	Radiobuttons	

Showing: 1 - 2 of 2

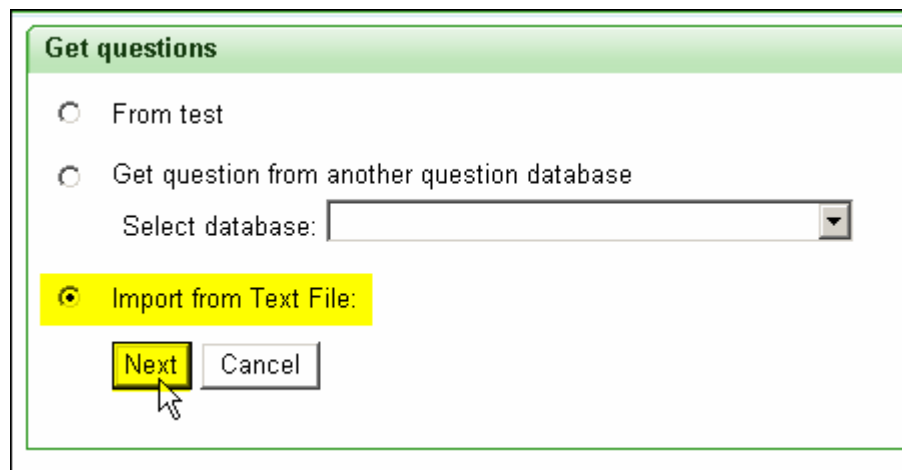
Copy to category:

Note:

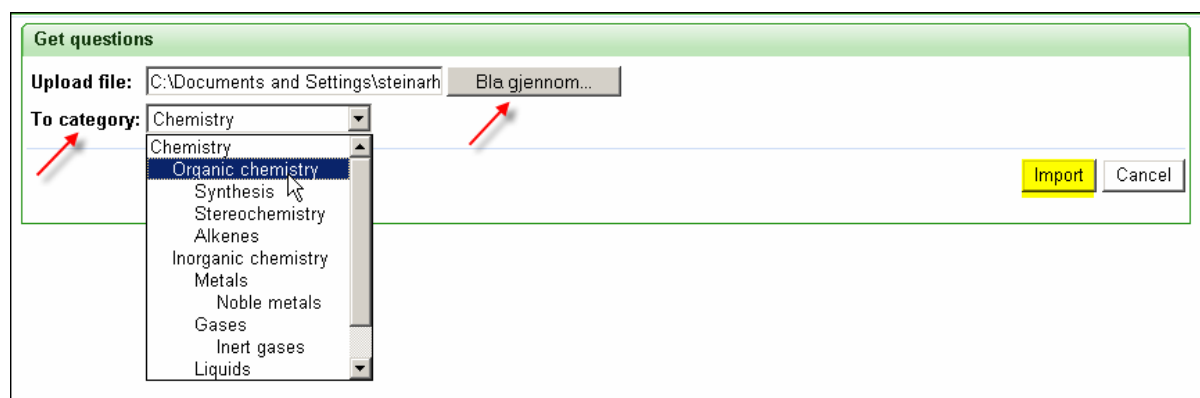
The questions must be *active* (those with status *draft* will not show up).

## Importing from text file:

You can also import questions from a test that has been exported. By selecting questions in a test you can, as you know, export them and a file in xml format will be created.

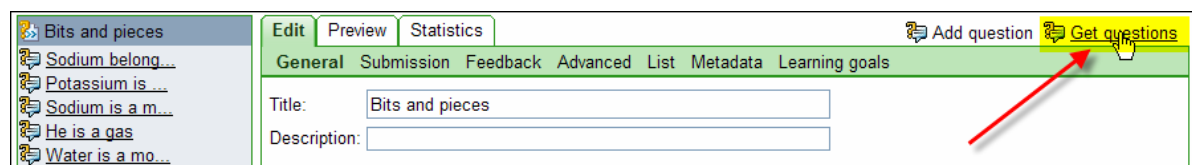


You must enter the relevant xml-file and select the category where you want the questions to be attached:



## Creating a test with questions from a question database

The point of having a question database is precisely to be able to create a test and then get questions from various categories:



Then you must decide whether to get the questions yourself (1) or whether they are to be picked at random from the database (2):

**Get question**

From test  
 Import  
 From question database (1)  
  
 Get random from question database (2)

Next Cancel

Suppose we choose (1) – to get questions from the database. There will then be two basic options:

- The questions are *copied* into your test: you can then edit the questions freely in the test and there is no link to the source questions in the question database.

**From Questiondatabase**

Search:  in category **Organic chemistry**

Search [Advanced search]

Total number of questions: 8 Showing: 1 - 8

<input type="checkbox"/>	Title	Status	In use	Created	Created by	Type
<input type="checkbox"/>	Is 2,4-dinitrophenylhydrazin an organic compound?	Active	Yes	2006-06-16	Steinar Hov	Text paragraph
<input checked="" type="checkbox"/>	Is 2,4-dinitrophenylhydrazin an organic compound?	Active	No	2006-06-28	Steinar Hov	Radiobuttons
<input checked="" type="checkbox"/>	Is acetic acid an organic compound?	Active	No	2006-08-04	Steinar Hov	Radiobuttons
<input type="checkbox"/>	Is carbon dioxide an organic compound?	Active	No	2006-08-04	Steinar Hov	Radiobuttons
<input checked="" type="checkbox"/>	The formula for an organic acid contains	Active	No	2006-06-16	Steinar Hov	Radiobuttons
<input type="checkbox"/>	Type 4 different sugars	Active	No	2006-06-16	Steinar Hov	Text area
<input type="checkbox"/>	What is a FC-prosess?	Active	No	2006-06-16	Steinar Hov	Text area
<input type="checkbox"/>	What is the correct formula for nylon?	Active	No	2006-06-16	Steinar Hov	Radiobuttons

Showing: 1 - 8 of 8

Link to **Copy** Back

- The questions are *linked* to your test: a link is created to each question in the question database. These questions cannot be altered in your test – all editing takes place in the question database and will affect all tests that are linked to these questions.

From Questiondatabase

Search:  in category **Organic chemistry** ▼

[[Advanced search](#)]

Total number of questions: 8 Showing: 1 - 8

<input type="checkbox"/>	Title	Status	In use	Created	Created by	Type
<input type="checkbox"/>	Is 2.4-dinitrophenylhydrazin an organic compound?	Active	Yes	2006-06-16	Steinar Hov	Text paragraph
<input checked="" type="checkbox"/>	Is 2.4-dinitrophenylhydrazin an organic compound?	Active	No	2006-06-28	Steinar Hov	Radiobuttons
<input checked="" type="checkbox"/>	Is acetic acid an organic compound?	Active	No	2006-08-04	Steinar Hov	Radiobuttons
<input type="checkbox"/>	Is carbondioxide an organic compound?	Active	No	2006-08-04	Steinar Hov	Radiobuttons
<input checked="" type="checkbox"/>	The formula for an organic acid contains	Active	No	2006-06-16	Steinar Hov	Radiobuttons
<input type="checkbox"/>	Type 4 different sugars	Active	No	2006-06-16	Steinar Hov	Text area
<input type="checkbox"/>	What is a FC-process?	Active	No	2006-06-16	Steinar Hov	Text area
<input type="checkbox"/>	What is the correct formula for nylon?	Active	No	2006-06-16	Steinar Hov	Radiobuttons

Showing: 1 - 8 of 8

Here you see a link, which means that the question cannot be changed in the actual test:

This is a questiondatabase question

Can not edit this question. This is a QDB question

- [Is 2.4-dinitrophenylhydrazin an organic compound?](#)
  - Yes
  - No

Linked questions and copied questions will get two different symbols in the actual test:

Linked questions:

Quiz week 31

- Is 2.4-dinitr...
- Is acetic aci...
- The formula f...

Copied questions:

Quiz week 31

- Is 2.4-dinitr...
- Is acetic aci...
- The formula f...

If instead you want to create a random test based on questions in the database (option (2) above) you will get these options:

Edit Preview Statistics  
 Preview Feedback  
 Category: Organic chemistry  
 Number of questions: 3  
 Type:  Text field  
 Text area  
 Check-boxes  
 Radiobuttons  
 Drop-down select  
 Matrix  
 Create Cancel

In this example 3 questions are picked at random from the category (and the sub categories) *Organic chemistry*. You will also notice that only the question type *radiobuttons* are picked.

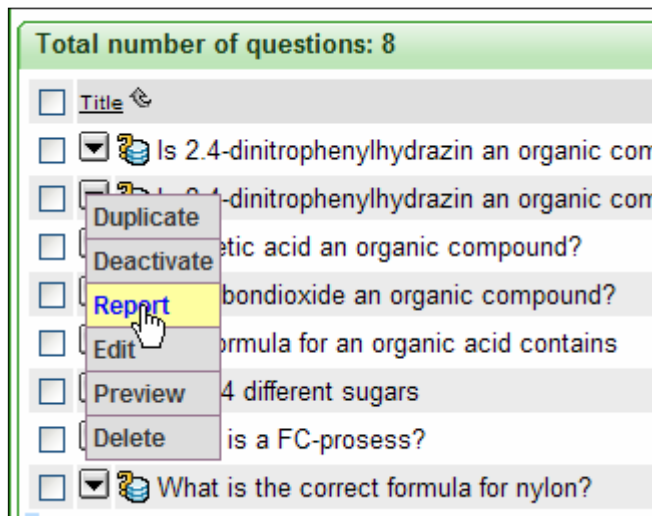
Edit Preview Statistics Add question Get questions  
 Preview Feedback  
 Title: Bits and pieces, Page 2  
 This is a random test that will show 3 questions in random order.  
 This test will get questions from a question database.  
 Questiondatabase: Introduction to General chemistry  
 Category: Organic chemistry  
 Types: Radiobuttons  
 Questions available: 5  
 No questions  
 <<Previous page Page: 2/2

As you will notice none of the questions are displayed – you need to *take the test* to see how the test turned out.

It is worth noting that there is one condition to be able to create a random test based on a question database; that the questions appear on one and the same page in the test. If you want questions from, let us say, 3 categories, you can create an empty test with 3 *pages*. Then you get questions from the question database from each of the categories on the relevant pages.

## Report

In the question database there is a display of the results from all the questions that are linked to tests. Select from the shortcut menu of the individual question:



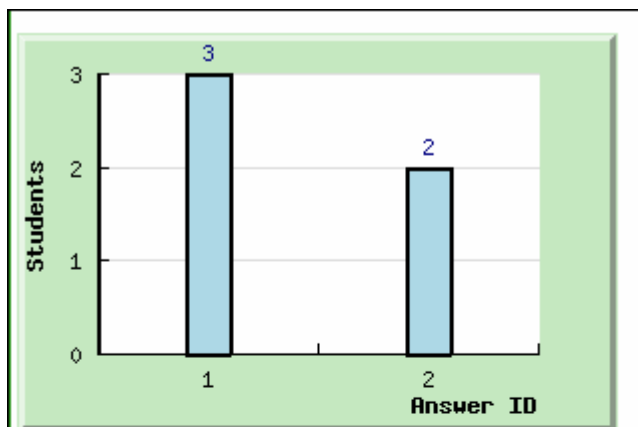
Here you will see the details of the question:

Question DB		Category						
Question	Type	Min	Max	Avg	Category	Last answered	Answers	Tests
Is 2,4-dinitrophenylhydrazin an organic compound?	Radiobuttons	0.00	1.00	0.60	Chemistry	2006-08-04	5	7
<b>Distribution:</b>								
Id	Answers	Score	Number of answers					
1	Yes	1.00	3					
2	No	0.00	2					

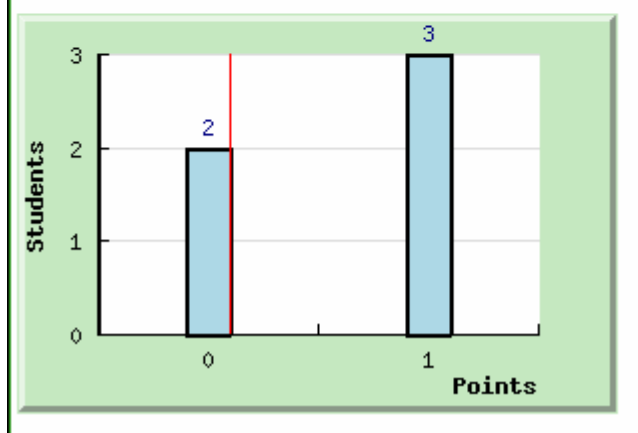
So this is a question

- with 1 correct reply option
- that is incorporated in 7 tests
- where there have been 5 replies
- out of which 3 have been correct

The breakdown looks like this:



**Score given:**



### Version control

Version	Date	Description	Responsible
62.1	14.08.2006	Theme: The question database	Steinar Hov
71.1	30.08.2007	Image update	Steinar Hov
82.1	21.08.2008	No changes	Steinar Hov

### QA Revision

Date	Verified by	Comments
14.08.06	Ingun Vaglid	Approved
30.01.07	Ingun Vaglid	Approved
21.08.08	Ingun Vaglid	Approved