

Dear <science teacher>

Thank you for participating in this study.

This questionnaire asks for information about:

- Background information
- Your initial education and professional development
- Your collaboration with teachers and parents
- Teacher beliefs and attitudes
- Science teaching practices
- Your school

<If a country administers national options, there should be an additional bullet point (above) added as required.>

This information will help illustrate the similarities and differences between groups of teachers in order to better establish the context for students' test results. For example, the information provided may help to establish what effect the availability of resources may have on student achievement - both within and between countries.

The questionnaire should be completed by you only. It should take about 45 minutes to complete.

If you do not know an answer precisely, your best estimate will be adequate for the purpose of the study.

Please note that the forward button used to proceed to the next question is located at the bottom right hand corner of your screen. In some instances you may need to scroll down to the bottom of your screen to access this forward button.

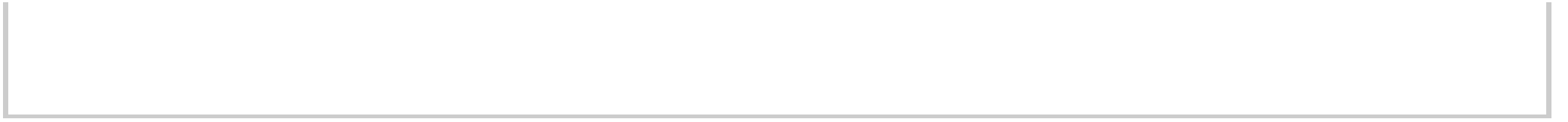
**Your answers will be kept confidential. They will be combined with answers from other teachers to calculate totals and averages from which no single teacher can be identified.**

To answer questions in this questionnaire, please consider the following definitions:

<School science> includes all <school sciences courses> referring to the domains of physics, chemistry, biology, <Earth science or geology>, <space science or astronomy>, applied sciences and technology either taught in your curriculum as separate science subjects or taught within a single 'integrated-science' subject. It does NOT include related subjects such as mathematics, psychology, economics, nor possible Earth science topics included in geography courses. The term <school science> has been used to explicitly distinguish from <broad science>. Please consider this distinction.

<Broad science> refers to all topics covered in academic or popular science and technology. This encompasses all possible disciplines in the natural sciences (e.g. physics, chemistry, biology, <Earth science or geology>, <space science or astronomy>), including applied sciences, technology and engineering. In contrast to <school science>, <broad science> is not limited to subjects or courses that are taught at school.

<School reminder note>



## **Section A: Background information**

**Are you female or male?**

*(Please select one response.)*

Female

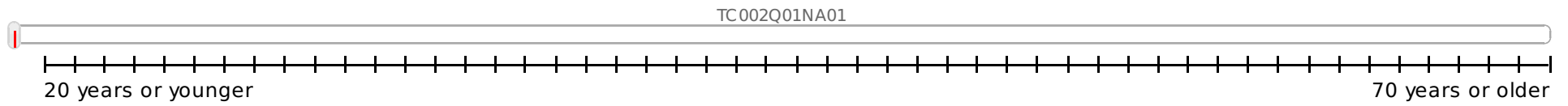
TC001Q01NA01

Male

TC001Q01NA02

## How old are you?

*(Please move the slider to the appropriate number of years.)*



**Have you taught <national modal grade for 15-year-olds> in the last 12 months?**

*(Please select one response.)*

Yes

TC003Q01NA01

No

TC003Q01NA02

**What is your employment status as a teacher at this school?**

*(Please select one response.)*

---

Permanent employment (an on-going contract with no fixed end-point before the age of retirement)

TC004Q01NA01

Fixed-term contract for a period of more than 1 school year

TC004Q01NA02

Fixed-term contract for a period of 1 school year or less

TC004Q01NA03

---

### What is your current employment status as a teacher?

*(Please consider your employment status at this school and for all your teaching employment together.)*

*(Please select one response in each row.)*

|                                      | <i>Full-time (more than 90% of full-time hours)</i> | <i>Part-time (71-90% of full-time hours)</i> | <i>Part-time (50-70% of full-time hours)</i> | <i>Part-time (less than 50% of full-time hours)</i> |
|--------------------------------------|---|--|--|---|
| My employment status at this school  | TC005Q01NA01<br><input type="radio"/>               | TC005Q01NA02<br><input type="radio"/>        | TC005Q01NA03<br><input type="radio"/>        | TC005Q01NA04<br><input type="radio"/>               |
| All my teaching employments together | TC005Q02NA01<br><input type="radio"/>               | TC005Q02NA02<br><input type="radio"/>        | TC005Q02NA03<br><input type="radio"/>        | TC005Q02NA04<br><input type="radio"/>               |



**In how many schools have you worked in the course of your teaching career?**

*(Include all schools, even if you worked at several schools at once.)*

*(Please move the slider to the appropriate number of schools.)*

---

TC006Q01NA01

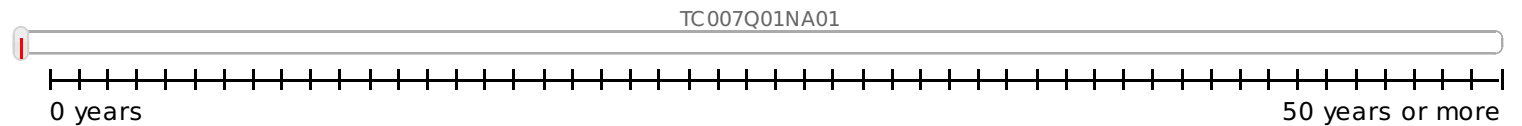
1 school 20 schools or more

---

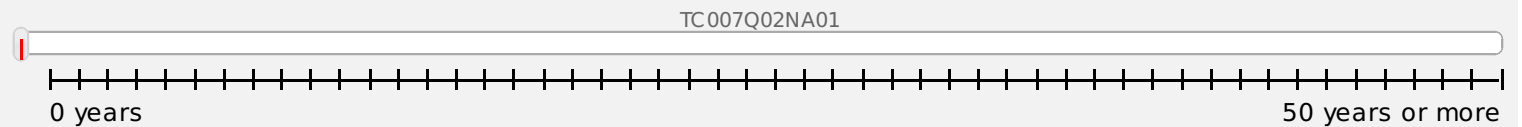
## How many years of work experience do you have?

(Please round up to whole years no matter whether you worked part-time or full-time and move the slider to the appropriate number of years. If any option did not apply to you select "0" (zero).)

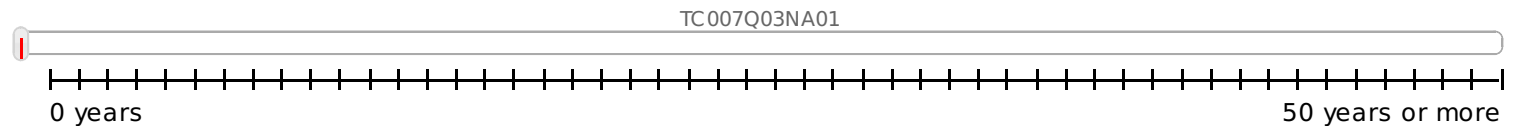
Year(s) working as a teacher at this school



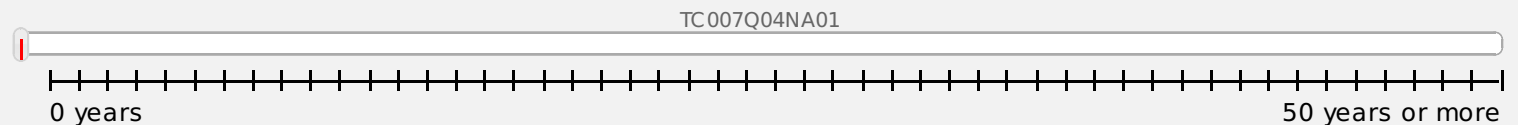
Year(s) working as a teacher in total



Year(s) working in other education roles (do not include years working as a teacher)



Year(s) working in other jobs





## Consistency check rule

Rule: If  $\text{^TC007Q01NA01} > \text{^TC007Q02NA01}$

Message: The number of years working at this school is greater than the number of years working in total. Please check your response.

**Did you submit a written application for the position as a teacher directly to your school?**

*(Please select one response.)*

Yes

TC008Q01NA01

No

TC008Q01NA02

## Branching rule

Rule:           If (^TC008Q01NA01=1) THEN GOTO ^TC010 ELSE If (^TC008Q01NA02=1) THEN GOTO ^TC009 ELSE  
GOTO ^TC3info

**You did not submit an application to your school directly. Did the <school administration authority> assign you to your position?**

*(Please select one response.)*

Yes

TC009Q01NA01

No

TC009Q01NA02

## Branching rule

Rule:        If (^TC009Q01NA01=1 OR ^TC009Q01NA02=1) THEN GOTO ^TC3info ELSE GOTO ^TC3info



**Was your current position at your school your first choice?**

*(Please select one response.)*

Yes

TC010Q01NA01

No

TC010Q01NA02

## How important were the following reasons for applying to work at this particular school?

(Please select one response in each row.)

|  | <i>Not important</i>                  | <i>Somewhat important</i>             | <i>Important</i>                      | <i>Very Important</i>                 |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| The school had a vacant position.  | TC011Q01NA01<br><input type="radio"/> | TC011Q01NA02<br><input type="radio"/> | TC011Q01NA03<br><input type="radio"/> | TC011Q01NA04<br><input type="radio"/> |
| The school's leadership team is very good.                                   | TC011Q02NA01<br><input type="radio"/> | TC011Q02NA02<br><input type="radio"/> | TC011Q02NA03<br><input type="radio"/> | TC011Q02NA04<br><input type="radio"/> |
| My professional career will benefit from working at this school.             | TC011Q03NA01<br><input type="radio"/> | TC011Q03NA02<br><input type="radio"/> | TC011Q03NA03<br><input type="radio"/> | TC011Q03NA04<br><input type="radio"/> |
| The school is at a short distance to home.                                   | TC011Q04NA01<br><input type="radio"/> | TC011Q04NA02<br><input type="radio"/> | TC011Q04NA03<br><input type="radio"/> | TC011Q04NA04<br><input type="radio"/> |
| The school has a good reputation.  | TC011Q05NA01<br><input type="radio"/> | TC011Q05NA02<br><input type="radio"/> | TC011Q05NA03<br><input type="radio"/> | TC011Q05NA04<br><input type="radio"/> |
| The school offers particular courses or school subjects.                     | TC011Q06NA01<br><input type="radio"/> | TC011Q06NA02<br><input type="radio"/> | TC011Q06NA03<br><input type="radio"/> | TC011Q06NA04<br><input type="radio"/> |
| The school adheres to a particular <religious philosophy>.                   | TC011Q07NA01<br><input type="radio"/> | TC011Q07NA02<br><input type="radio"/> | TC011Q07NA03<br><input type="radio"/> | TC011Q07NA04<br><input type="radio"/> |
| The school has a particular <pedagogical-didactical approach, e.g. example>. | TC011Q08NA01<br><input type="radio"/> | TC011Q08NA02<br><input type="radio"/> | TC011Q08NA03<br><input type="radio"/> | TC011Q08NA04<br><input type="radio"/> |
| Friends or family members teach at this school.                              | TC011Q09NA01<br><input type="radio"/> | TC011Q09NA02<br><input type="radio"/> | TC011Q09NA03<br><input type="radio"/> | TC011Q09NA04<br><input type="radio"/> |
| The school has an active and pleasant school climate.                        | TC011Q10NA01<br><input type="radio"/> | TC011Q10NA02<br><input type="radio"/> | TC011Q10NA03<br><input type="radio"/> | TC011Q10NA04<br><input type="radio"/> |

The academic achievements of students in the school are high.

TC011Q11NA01

TC011Q11NA02

TC011Q11NA03

TC011Q11NA04

There is a safe school environment.

TC011Q12NA01

TC011Q12NA02

TC011Q12NA03

TC011Q12NA04

Most students come from disadvantaged backgrounds.

TC011Q13NA01

TC011Q13NA02

TC011Q13NA03

TC011Q13NA04

Most students come from a privileged background.

TC011Q14NA01

TC011Q14NA02

TC011Q14NA03

TC011Q14NA04

The school offers attractive salaries and bonuses.

TC011Q15NA01

TC011Q15NA02

TC011Q15NA03

TC011Q15NA04

The school is well funded and equipped.

TC011Q16NA01

TC011Q16NA02

TC011Q16NA03

TC011Q16NA04

**Section B: Your initial education and professional development**

**What is the highest level of formal education you have completed?**

*(Please select one response.)*

---

<Below ISCED Level 5>

TC012Q01NA01

<ISCED Level 5B>

TC012Q01NA02

<ISCED Level 5A Bachelor  
degree>

TC012Q01NA03

<ISCED Level 5A Masters degree>

TC012Q01NA04

<ISCED Level 6>

TC012Q01NA05

---

**After completing <ISCED level 3 or below>, was your goal to pursue a career in the teaching profession?**

*(Please select one response.)*

Yes

TC013Q01NA01

No

TC013Q01NA02

**Did you complete a teacher education or training programme?**

*(Please select one response.)*

Yes

TC014Q01NA01

No

TC014Q01NA02

## How did you receive your teaching qualifications?

*(Please select one response.)*

I attended a standard teacher education or training programme at a <educational institute which is eligible to educate or train teachers>.

TC015Q01NA01

I attended an in-service teacher education or training programme.

TC015Q01NA02

I attended a work based teacher education or training programme.

TC015Q01NA03

I attended a training in another pedagogical profession.

TC015Q01NA04

Other

TC015Q01NA05



## Branching rule

Rule: IF (^TC015Q01NA01=1) THEN GOTO ^TC016 ELSE IF (^TC015Q01NA02=1 OR ^TC015Q01NA03=1)  
THEN GOTO ^TC017 ELSE IF (^TC015Q01NA04=1 OR ^TC015Q01NA05=1) THEN GOTO ^TC018 ELSE GOTO ^TC018

**You attended a standard teacher education or training programme at a <educational institute which is eligible to educate or train teachers>.  
What level of formal education did you reach there?**

*(Please select one response.)*

<Below ISCED Level 5>

TC016Q01NA01

<ISCED 5B>

TC016Q01NA02

<ISCED 5A Bachelor degree>

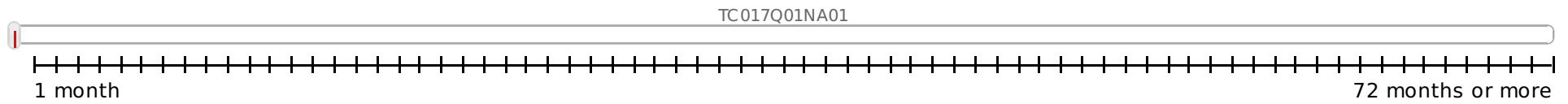
TC016Q01NA03

<ISCED 5A Masters degree>

TC016Q01NA04

**For how many months did you attend the teacher education or training programme?**

*(Please round up to whole months and move the slider to the appropriate number of months.)*



**Were any of the following included in your teacher education or training programme or other professional qualification and do you teach them to the <national modal grade for 15-year-olds> in the current school year?**

*(Because this is an international survey, we had to categorise many of the actual subjects taught in schools into broad categories. If the exact name of one of your subjects is not listed, please mark the category you think best fits the subject.)*

*(If you need further explanation for terms used in this question, please use the help button.)*

*(Please select all that apply.)*

**Reading, writing and literature:** reading and writing (and literature) in the mother tongue, in the language of instruction, or in the tongue of the country (region) as a second language (for non-natives); language studies, public speaking, literature

**Mathematics:** mathematics, mathematics with statistics, geometry, algebra, etc.

**Science:** natural sciences, physics, physical science, chemistry, biology, human biology, earth and space sciences, environmental science, agriculture/horticulture/forestry

**Technology:** orientation in technology, including information technology, computer studies, construction/surveying, engineering, electronics, graphics and design, keyboard skills, word processing, workshop technology/design technology

**Social studies:** social studies, community studies, contemporary studies, economics, environmental studies, geography, history, humanities, legal studies, studies of the own country, social sciences, ethical thinking, philosophy

**Modern foreign languages:** languages different from the language of instruction

**Ancient languages** (e.g. Latin)

**Arts:** arts, music, visual arts, practical art, drama, performance music, photography, drawing, creative handicraft, creative needlework

**Physical education:** physical education, gymnastics, dance, health

**Religion and/or ethics:** religion, history of religions, religion culture, ethics

**Practical and vocational skills:** vocational skills (preparation for a specific occupation), technics, domestic science, accountancy, business studies, career education, clothing and textiles, driving, home economics, polytechnic courses, secretarial studies, tourism and hospitality, handicraft.

*Included in my teacher education or training  
programme or other professional qualification*

*I teach it to the <national modal grade for 15-  
year-olds> in the current school year*

|                                 |  |  |
|---------------------------------|--|--|
| Reading, writing and literature | TC018Q01NA01<br><input type="checkbox"/> | TC018Q01NB01<br><input type="checkbox"/> |
| Mathematics                     | TC018Q02NA01<br><input type="checkbox"/> | TC018Q02NB01<br><input type="checkbox"/> |
| Science                         | TC018Q03NA01<br><input type="checkbox"/> | TC018Q03NB01<br><input type="checkbox"/> |
| Technology                      | TC018Q04NA01<br><input type="checkbox"/> | TC018Q04NB01<br><input type="checkbox"/> |
| Social studies                  | TC018Q05NA01<br><input type="checkbox"/> | TC018Q05NB01<br><input type="checkbox"/> |
| Modern foreign languages        | TC018Q06NA01<br><input type="checkbox"/> | TC018Q06NB01<br><input type="checkbox"/> |
| Ancient languages (e.g. Latin)  | TC018Q07NA01<br><input type="checkbox"/> | TC018Q07NB01<br><input type="checkbox"/> |
| Arts                            | TC018Q08NA01<br><input type="checkbox"/> | TC018Q08NB01<br><input type="checkbox"/> |
| Physical education              | TC018Q09NA01<br><input type="checkbox"/> | TC018Q09NB01<br><input type="checkbox"/> |
| Religion and/or ethics          | TC018Q10NA01<br><input type="checkbox"/> | TC018Q10NB01<br><input type="checkbox"/> |
| Practical and vocational skills | TC018Q11NA01<br><input type="checkbox"/> | TC018Q11NB01<br><input type="checkbox"/> |

---

## Consistency check rule

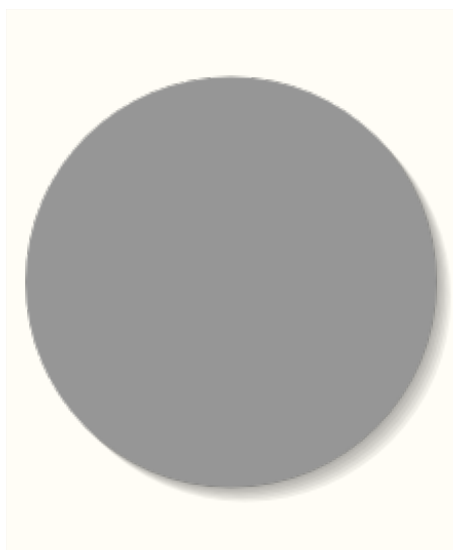
Rule: If (^TC018Q01NA01=0 and ^TC018Q02NA01=0 and ^TC018Q03NA01=0 and ^TC018Q04NA01=0 and ^TC018Q05NA01=0 and ^TC018Q06NA01=0 and ^TC018Q07NA01=0 and ^TC018Q08NA01=0 and ^TC018Q09NA01=0 and ^TC018Q10NA01=0 and ^TC018Q11NA01=0 and (^TC018Q01NB01=0 and ^TC018Q02NB01=0 and ^TC018Q03NB01=0 and ^TC018Q04NB01=0 and ^TC018Q05NB01=0 and ^TC018Q06NB01=0 and ^TC018Q07NB01=0 and ^TC018Q08NB01=0 and ^TC018Q09NB01=0 and ^TC018Q10NB01=0 and ^TC018Q11NB01=0))


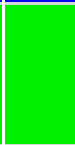


Message: Please select a response.

**What proportion of your teacher education or training programme or other professional qualification was dedicated to each of the following areas?**

*(For each area please enter an approximate percentage, e.g. "20" in the first row to indicate 20% of initial education time used for <broad science> and technology content matter.)*

*(Note that the percentages must add up to 100.)*



|  |   |                                      |
|--|---|--------------------------------------|
|   | <b>&lt;Broad science&gt; and technology content matter:</b> knowledge and skills in any <broad science> discipline  | TC029Q01NA01<br><input type="text"/> |
|   | <b>Teaching and learning &lt;school science&gt;:</b> teaching methodology related to <school science>, instructional skills (e.g. use of experiments), student misconceptions | TC029Q02NA01<br><input type="text"/> |
|   | <b>General topics in education:</b> e.g. teacher-student interaction, classroom management, school evaluation, special education  | TC029Q03NA01<br><input type="text"/> |
|  | <b>Other topics</b>   | TC029Q04NA01<br><input type="text"/> |

## Consistency check rule

Rule: If  $((^{\wedge}\text{TC029Q01NA01} + ^{\wedge}\text{TC029Q02NA01} + ^{\wedge}\text{TC029Q03NA01} + ^{\wedge}\text{TC029Q04NA01}) > 100)$  OR  
 $((^{\wedge}\text{TC029Q01NA01} + ^{\wedge}\text{TC029Q02NA01} + ^{\wedge}\text{TC029Q03NA01} + ^{\wedge}\text{TC029Q04NA01}) < 100)$

Message: Sum does not add to 100%, please check your response.

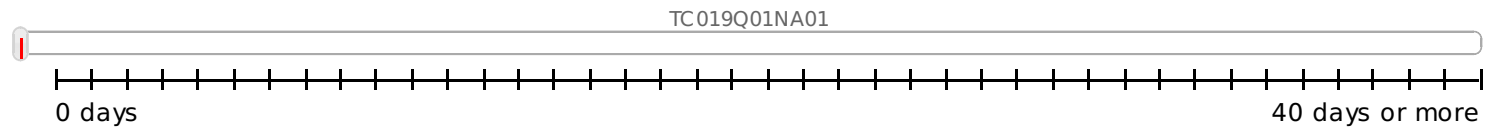


**During the last 12 months, did you participate in any of the following professional development activities, and if yes, for how many days did they last?**

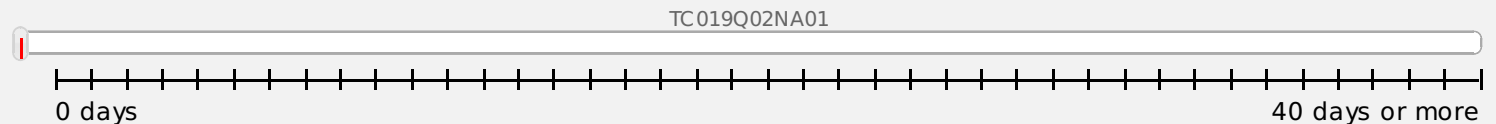
*(Please sum up the activities in full days (a full day is 6-8 hours) and include activities that take place during weekends, evenings or other off work hours.)*

*(Please move the slider to the appropriate number of days. If you did not participate in any professional development activities select "0" (zero).)*

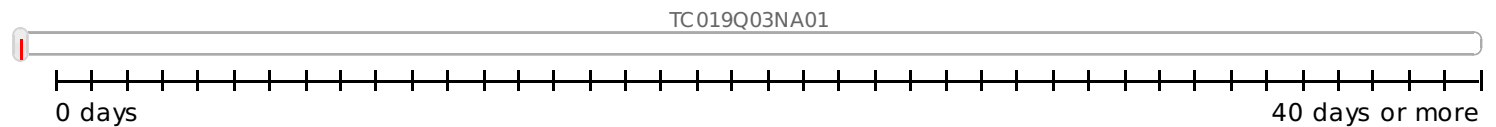
Courses/workshops (e.g. on subject matter or methods and/or other education-related topics)



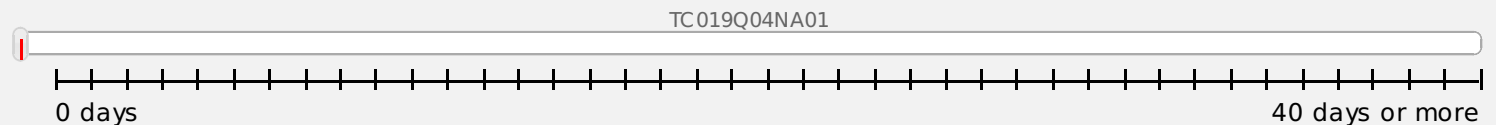
Education conferences or seminars (where teachers and/or researchers present their research results and discuss educational issues)



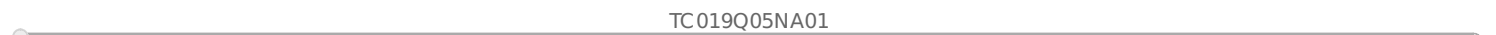
Observation visits to other schools



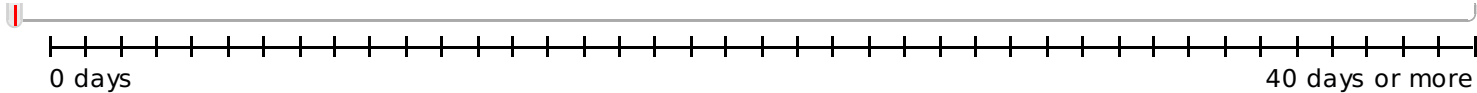
Observation visits to companies, public organisations, non-governmental organisations



In-service training courses in



private companies, public  
organisations, non-governmental  
organisations



**During the last 12 months, did you participate in any of the following activities?**

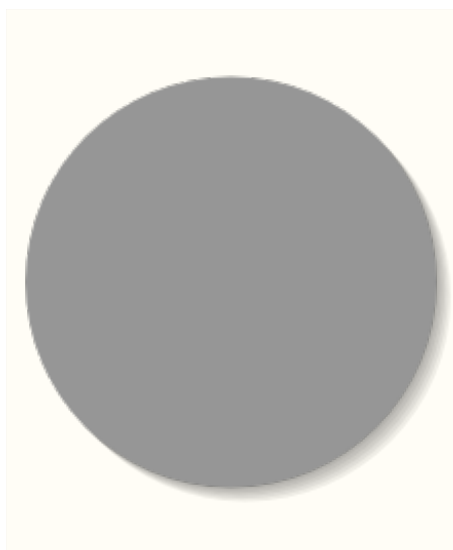
*(Please select one response in each row.)*

|   | Yes                                   | No                                    |
|---|---------------------------------------|---------------------------------------|
| Qualification programme (e.g. a <degree programme>)   | TC020Q01NA01<br><input type="radio"/> | TC020Q01NA02<br><input type="radio"/> |
| Participation in a network of teachers formed specifically for the professional development of teachers | TC020Q02NA01<br><input type="radio"/> | TC020Q02NA02<br><input type="radio"/> |
| Individual or collaborative research on a topic of interest to you professionally                       | TC020Q03NA01<br><input type="radio"/> | TC020Q03NA02<br><input type="radio"/> |
| Mentoring and/or peer observation and coaching, as part of a formal school arrangement                  | TC020Q04NA01<br><input type="radio"/> | TC020Q04NA02<br><input type="radio"/> |
| Reading professional literature (e.g. journals, evidence-based papers, thesis papers)                   | TC020Q05NA01<br><input type="radio"/> | TC020Q05NA02<br><input type="radio"/> |
| Engaging in informal dialogue with your colleagues on how to improve your teaching                      | TC020Q06NA01<br><input type="radio"/> | TC020Q06NA02<br><input type="radio"/> |

**During the last 12 months, what proportion of your professional development activities was dedicated to each of the following areas?**

*(For each area please enter an approximate percentage, e.g. "20" in the first row to indicate 20% of professional development activity time used for <broad science> and technology content matter.)*

*(Note that the percentages must add up to 100.)*



|   |                                      |
|---|--------------------------------------|
| <b>&lt;Broad science&gt; and technology content matter:</b> knowledge and skills in any <broad science> discipline  | TC030Q01NA01<br><input type="text"/> |
| <b>Teaching and learning &lt;school science&gt;:</b> teaching methodology related to <school science>, instructional skills (e.g. use of experiments), student misconceptions | TC030Q02NA01<br><input type="text"/> |
| <b>General topics in education:</b> e.g. teacher-student interaction, classroom management, school evaluation, special education, special education                           | TC030Q03NA01<br><input type="text"/> |
| <b>Other topics</b>   | TC030Q04NA01<br><input type="text"/> |

## Consistency check rule

Rule: If (( ^TC030Q01NA01 + ^TC030Q02NA01 + ^TC030Q03NA01 + ^TC030Q04NA01) >100) OR ((^TC030Q01NA01 + ^TC030Q02NA01 + ^TC030Q03NA01 + ^TC030Q04NA01) < 100)

Message: Sum does not add to 100%, please check your response.

**Are you required to take part in professional development activities?**

*(Please select one response.)*

Yes

TC021Q01NA01

No

TC021Q01NA02

## Branching rule

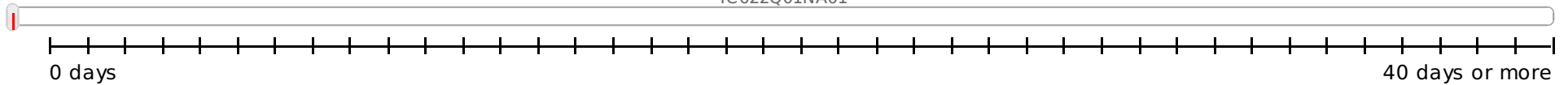
Rule: IF (^TC021Q01NA01=1) THEN GOTO ^TC022 ELSE GOTO ^TC023

**How many days within a school year are you required to take part in professional development activities?**

*(If you are not required to take part in professional development activities for a certain number of days but are required to participate in selected workshops or courses, please count the number of days that these professional development activities occur over.)*

*(Please move the slider to the appropriate number of days.)*

TC022Q01NA01





## How does your school support your professional development activities?

*(Please select all that apply.)*

By providing remuneration and reimbursement

TC023Q01NA01

By use of working time

TC023Q02NA01

By release from teaching responsibilities

TC023Q03NA01

By providing material resources

TC023Q04NA01

By providing other support

TC023Q05NA01

No support

TC023Q06NA01

## Consistency check rule

Rule: If ^TC023Q06NA01= 1 and ( ^TC023Q01NA01 = 1 or ^TC023Q02NA01 = 1 or ^TC023Q03NA01 = 1 or ^TC023Q04NA01 = 1 or ^TC023Q05NA01 = 1)

Message: You have selected "No support" with another category. Please check your response.

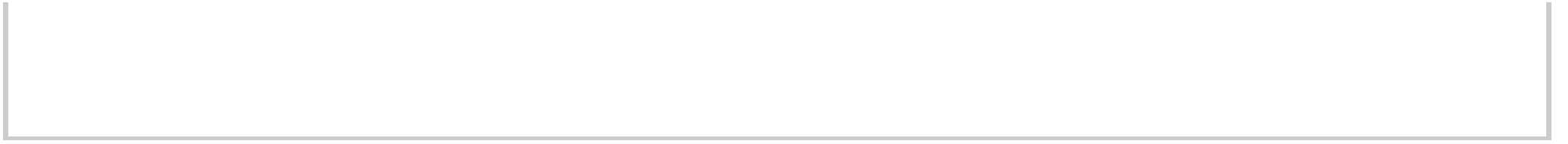
## **Section C: Your collaboration with teachers and parents**

**To what extent do you disagree or agree with the following statements about regular cooperation among your fellow <school science> teachers and yourself?**

*(Please select one response in each row.)*

|  | <i>Strongly disagree</i>              | <i>Disagree</i>                       | <i>Agree</i>                          | <i>Strongly agree</i>                 |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| We pursue the same educational objectives.   | TC031Q01NA01<br><input type="radio"/> | TC031Q01NA02<br><input type="radio"/> | TC031Q01NA03<br><input type="radio"/> | TC031Q01NA04<br><input type="radio"/> |
| We decide together what teaching materials should be used in lessons.  | TC031Q02NA01<br><input type="radio"/> | TC031Q02NA02<br><input type="radio"/> | TC031Q02NA03<br><input type="radio"/> | TC031Q02NA04<br><input type="radio"/> |
| Apart from end-of-term conferences, we rarely discuss what targets students are expected to achieve in <school science> lessons. | TC031Q03NA01<br><input type="radio"/> | TC031Q03NA02<br><input type="radio"/> | TC031Q03NA03<br><input type="radio"/> | TC031Q03NA04<br><input type="radio"/> |
| We discuss the achievement requirements for <school science> when setting tests.   | TC031Q04NA01<br><input type="radio"/> | TC031Q04NA02<br><input type="radio"/> | TC031Q04NA03<br><input type="radio"/> | TC031Q04NA04<br><input type="radio"/> |
| We communicate information about subject-related issues.   | TC031Q05NA01<br><input type="radio"/> | TC031Q05NA02<br><input type="radio"/> | TC031Q05NA03<br><input type="radio"/> | TC031Q05NA04<br><input type="radio"/> |
| We cooperate constructively on ways of teaching <school science>.  | TC031Q06NA01<br><input type="radio"/> | TC031Q06NA02<br><input type="radio"/> | TC031Q06NA03<br><input type="radio"/> | TC031Q06NA04<br><input type="radio"/> |
| It is natural for us to cooperate on what homework to give to our students.  | TC031Q07NA01<br><input type="radio"/> | TC031Q07NA02<br><input type="radio"/> | TC031Q07NA03<br><input type="radio"/> | TC031Q07NA04<br><input type="radio"/> |
| We use our lesson-free periods to work together.   | TC031Q08NA01<br><input type="radio"/> | TC031Q08NA02<br><input type="radio"/> | TC031Q08NA03<br><input type="radio"/> | TC031Q08NA04<br><input type="radio"/> |
| We exchange tasks that we used to create written tests.  | TC031Q09NA01<br><input type="radio"/> | TC031Q09NA02<br><input type="radio"/> | TC031Q09NA03<br><input type="radio"/> | TC031Q09NA04<br><input type="radio"/> |

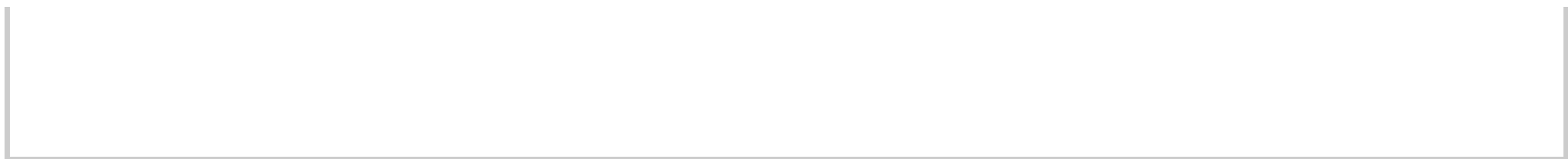
|  |                                       |                                       |                                       |                                       |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Our criteria for grading tests differ very little.   | TC031Q10NA01<br><input type="radio"/> | TC031Q10NA02<br><input type="radio"/> | TC031Q10NA03<br><input type="radio"/> | TC031Q10NA04<br><input type="radio"/> |
| We discuss the criteria we use to grade written tests.   | TC031Q11NA01<br><input type="radio"/> | TC031Q11NA02<br><input type="radio"/> | TC031Q11NA03<br><input type="radio"/> | TC031Q11NA04<br><input type="radio"/> |
| We discuss ways to stimulate students' <broad science> skills.   | TC031Q12NA01<br><input type="radio"/> | TC031Q12NA02<br><input type="radio"/> | TC031Q12NA03<br><input type="radio"/> | TC031Q12NA04<br><input type="radio"/> |
| We exchange tasks for lessons and homework that cover a range of different levels of difficulty.       | TC031Q13NA01<br><input type="radio"/> | TC031Q13NA02<br><input type="radio"/> | TC031Q13NA03<br><input type="radio"/> | TC031Q13NA04<br><input type="radio"/> |
| I prepare a selection of teaching units with my fellow <school science> teachers.                      | TC031Q14NA01<br><input type="radio"/> | TC031Q14NA02<br><input type="radio"/> | TC031Q14NA03<br><input type="radio"/> | TC031Q14NA04<br><input type="radio"/> |
| We discuss ways to teach learning strategies and techniques to our students.                           | TC031Q15NA01<br><input type="radio"/> | TC031Q15NA02<br><input type="radio"/> | TC031Q15NA03<br><input type="radio"/> | TC031Q15NA04<br><input type="radio"/> |
| I discuss lessons with other <school science> teachers even outside official meetings and conferences. | TC031Q16NA01<br><input type="radio"/> | TC031Q16NA02<br><input type="radio"/> | TC031Q16NA03<br><input type="radio"/> | TC031Q16NA04<br><input type="radio"/> |
| We exchange teaching material.   | TC031Q17NA01<br><input type="radio"/> | TC031Q17NA02<br><input type="radio"/> | TC031Q17NA03<br><input type="radio"/> | TC031Q17NA04<br><input type="radio"/> |
| My fellow <school science> teachers benefit from my specific skills and interests.                     | TC031Q18NA01<br><input type="radio"/> | TC031Q18NA02<br><input type="radio"/> | TC031Q18NA03<br><input type="radio"/> | TC031Q18NA04<br><input type="radio"/> |
| Our discussions mostly focus on the achievements of our students.                                      | TC031Q19NA01<br><input type="radio"/> | TC031Q19NA02<br><input type="radio"/> | TC031Q19NA03<br><input type="radio"/> | TC031Q19NA04<br><input type="radio"/> |
| We discuss ways to better identify students' individual strengths and weaknesses.                      | TC031Q20NA01<br><input type="radio"/> | TC031Q20NA02<br><input type="radio"/> | TC031Q20NA03<br><input type="radio"/> | TC031Q20NA04<br><input type="radio"/> |
| We discuss strategies for coping with professional problems.   | TC031Q21NA01<br><input type="radio"/> | TC031Q21NA02<br><input type="radio"/> | TC031Q21NA03<br><input type="radio"/> | TC031Q21NA04<br><input type="radio"/> |
| We talk in an open manner about our experiences with classroom teaching.                               | TC031Q22NA01<br><input type="radio"/> | TC031Q22NA02<br><input type="radio"/> | TC031Q22NA03<br><input type="radio"/> | TC031Q22NA04<br><input type="radio"/> |



**Teachers play an important role in communication with parents. From your perspective, to what extent are the following topics of parent-teacher communication important?**

*(Please select one response in each row.)*

|   | <i>Not important</i>                   | <i>Somewhat important</i>              | <i>Important</i>                       | <i>Very important</i>                  |
|---|--|--|--|--|
| Students' academic achievement                            | TC 024Q01NA01<br><input type="radio"/> | TC 024Q01NA02<br><input type="radio"/> | TC 024Q01NA03<br><input type="radio"/> | TC 024Q01NA04<br><input type="radio"/> |
| Choice of school  | TC 024Q02NA01<br><input type="radio"/> | TC 024Q02NA02<br><input type="radio"/> | TC 024Q02NA03<br><input type="radio"/> | TC 024Q02NA04<br><input type="radio"/> |
| Students' transfer or change of school                    | TC 024Q03NA01<br><input type="radio"/> | TC 024Q03NA02<br><input type="radio"/> | TC 024Q03NA03<br><input type="radio"/> | TC 024Q03NA04<br><input type="radio"/> |
| Students' behaviour problems                              | TC 024Q04NA01<br><input type="radio"/> | TC 024Q04NA02<br><input type="radio"/> | TC 024Q04NA03<br><input type="radio"/> | TC 024Q04NA04<br><input type="radio"/> |
| Specific concerns related to parents from other countries | TC 024Q05NA01<br><input type="radio"/> | TC 024Q05NA02<br><input type="radio"/> | TC 024Q05NA03<br><input type="radio"/> | TC 024Q05NA04<br><input type="radio"/> |
| Students' learning difficulties                           | TC 024Q06NA01<br><input type="radio"/> | TC 024Q06NA02<br><input type="radio"/> | TC 024Q06NA03<br><input type="radio"/> | TC 024Q06NA04<br><input type="radio"/> |
| Ways to help students with their homework                 | TC 024Q07NA01<br><input type="radio"/> | TC 024Q07NA02<br><input type="radio"/> | TC 024Q07NA03<br><input type="radio"/> | TC 024Q07NA04<br><input type="radio"/> |
| Individual encouragement of each student                  | TC 024Q08NA01<br><input type="radio"/> | TC 024Q08NA02<br><input type="radio"/> | TC 024Q08NA03<br><input type="radio"/> | TC 024Q08NA04<br><input type="radio"/> |
| Students' addiction problems                              | TC 024Q09NA01<br><input type="radio"/> | TC 024Q09NA02<br><input type="radio"/> | TC 024Q09NA03<br><input type="radio"/> | TC 024Q09NA04<br><input type="radio"/> |





**To what extent are the following ways of communicating with your students' parents important to you?**

*(Please select one response in each row.)*

|  | <i>Not important</i>                  | <i>Somewhat important</i>             | <i>Important</i>                      | <i>Very important</i>                 | <i>Not supported by school</i>        |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Communication per notes and letters  | TC025Q01NA01<br><input type="radio"/> | TC025Q01NA02<br><input type="radio"/> | TC025Q01NA03<br><input type="radio"/> | TC025Q01NA04<br><input type="radio"/> | TC025Q01NA05<br><input type="radio"/> |
| Scheduled meeting at a parent-teacher conference / consultation                | TC025Q02NA01<br><input type="radio"/> | TC025Q02NA02<br><input type="radio"/> | TC025Q02NA03<br><input type="radio"/> | TC025Q02NA04<br><input type="radio"/> | TC025Q02NA05<br><input type="radio"/> |
| Phone calls  | TC025Q03NA01<br><input type="radio"/> | TC025Q03NA02<br><input type="radio"/> | TC025Q03NA03<br><input type="radio"/> | TC025Q03NA04<br><input type="radio"/> | TC025Q03NA05<br><input type="radio"/> |
| Communication via internet or text messages (e-mail, website, messenger, etc.) | TC025Q04NA01<br><input type="radio"/> | TC025Q04NA02<br><input type="radio"/> | TC025Q04NA03<br><input type="radio"/> | TC025Q04NA04<br><input type="radio"/> | TC025Q04NA05<br><input type="radio"/> |
| Unscheduled informal meetings  | TC025Q05NA01<br><input type="radio"/> | TC025Q05NA02<br><input type="radio"/> | TC025Q05NA03<br><input type="radio"/> | TC025Q05NA04<br><input type="radio"/> | TC025Q05NA05<br><input type="radio"/> |

**Section D: Teacher beliefs and attitudes**

**For the following pairs of statements, please choose the response that is more prevalent in your school.**

*(Please select one response in each row.)*

Most <school science> teachers in my school are interested in trying new teaching practices.

TC032Q01NA01

Most <school science> teachers in my school are interested in staying with well-established instructional methods.

TC032Q01NA02

Most <school science> teachers in my school believe that the social and emotional development of the students is as important as their acquisition of <broad science> knowledge.

TC032Q02NA01

Most <school science> teachers in my school believe that the development of skills and knowledge in students is the most important objective in <school science> classes.

TC032Q02NA02

Most <school science> teachers in my school intend to adapt academic standards to the students' level and needs.

TC032Q03NA01

Most <school science> teachers in my school intend to keep academic standards high.

TC032Q03NA02

**To what extent can (or could) you do the following?**

*(Please select one response in each row.)*

|  | <i>Not at all</i>                     | <i>Very little</i>                    | <i>To some extent</i>                 | <i>To a large extent</i>              |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Explain basic scientific ideas (such as energy or photosynthesis) to my <school science> class | TC033Q01NA01<br><input type="radio"/> | TC033Q01NA02<br><input type="radio"/> | TC033Q01NA03<br><input type="radio"/> | TC033Q01NA04<br><input type="radio"/> |
| Design good test questions for my students   | TC033Q02NA01<br><input type="radio"/> | TC033Q02NA02<br><input type="radio"/> | TC033Q02NA03<br><input type="radio"/> | TC033Q02NA04<br><input type="radio"/> |
| Provide an alternative explanation, for example when students are confused                     | TC033Q03NA01<br><input type="radio"/> | TC033Q03NA02<br><input type="radio"/> | TC033Q03NA03<br><input type="radio"/> | TC033Q03NA04<br><input type="radio"/> |
| Design experiments and hands-on activities for <inquiry-based learning>                        | TC033Q04NA01<br><input type="radio"/> | TC033Q04NA02<br><input type="radio"/> | TC033Q04NA03<br><input type="radio"/> | TC033Q04NA04<br><input type="radio"/> |
| Assign tailored tasks to the weakest as well as to the best students                           | TC033Q05NA01<br><input type="radio"/> | TC033Q05NA02<br><input type="radio"/> | TC033Q05NA03<br><input type="radio"/> | TC033Q05NA04<br><input type="radio"/> |
| Use a variety of assessment strategies   | TC033Q06NA01<br><input type="radio"/> | TC033Q06NA02<br><input type="radio"/> | TC033Q06NA03<br><input type="radio"/> | TC033Q06NA04<br><input type="radio"/> |
| Identify <broad science> related misconceptions through scrutiny of student work               | TC033Q07NA01<br><input type="radio"/> | TC033Q07NA02<br><input type="radio"/> | TC033Q07NA03<br><input type="radio"/> | TC033Q07NA04<br><input type="radio"/> |
| Facilitate a discussion among students on how to interpret experimental findings               | TC033Q08NA01<br><input type="radio"/> | TC033Q08NA02<br><input type="radio"/> | TC033Q08NA03<br><input type="radio"/> | TC033Q08NA04<br><input type="radio"/> |



## To what extent can (or could) you do the following?

(If you need further explanation of the term my scientific discipline, please use the help button.)

(Please select one response in each row.)

Your <scientific discipline> refers to one specific <broad science> discipline your main <school science> subject belongs to. If you teach the same number of hours for several <school science> subjects, you should choose only one and relate your answer to it.

|  | <i>Not at all</i>                     | <i>Very little</i>                    | <i>To some extent</i>                 | <i>To a large extent</i>              |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Explain a complex scientific concept to a fellow teacher   | TC034Q01NA01<br><input type="radio"/> | TC034Q01NA02<br><input type="radio"/> | TC034Q01NA03<br><input type="radio"/> | TC034Q01NA04<br><input type="radio"/> |
| State and defend an informed position on ethical problems relating to <broad science>            | TC034Q02NA01<br><input type="radio"/> | TC034Q02NA02<br><input type="radio"/> | TC034Q02NA03<br><input type="radio"/> | TC034Q02NA04<br><input type="radio"/> |
| Pass an entrance exam for a <school science> bachelor's course at <college>                      | TC034Q03NA01<br><input type="radio"/> | TC034Q03NA02<br><input type="radio"/> | TC034Q03NA03<br><input type="radio"/> | TC034Q03NA04<br><input type="radio"/> |
| Read state-of-the art papers in my scientific discipline   | TC034Q04NA01<br><input type="radio"/> | TC034Q04NA02<br><input type="radio"/> | TC034Q04NA03<br><input type="radio"/> | TC034Q04NA04<br><input type="radio"/> |
| Recommend high-quality <broad science> presentations in the media (TV, magazines) to my students | TC034Q05NA01<br><input type="radio"/> | TC034Q05NA02<br><input type="radio"/> | TC034Q05NA03<br><input type="radio"/> | TC034Q05NA04<br><input type="radio"/> |
| Explain the links between biology, physics and chemistry   | TC034Q06NA01<br><input type="radio"/> | TC034Q06NA02<br><input type="radio"/> | TC034Q06NA03<br><input type="radio"/> | TC034Q06NA04<br><input type="radio"/> |
| Use formal models to explain scientific phenomena  | TC034Q07NA01<br><input type="radio"/> | TC034Q07NA02<br><input type="radio"/> | TC034Q07NA03<br><input type="radio"/> | TC034Q07NA04<br><input type="radio"/> |



**We would like to know how you generally feel about your job. How strongly do you agree or disagree with the following statements?**

*(Please select one response in each row.)*

|  | <i>Strongly disagree</i>              | <i>Disagree</i>                       | <i>Agree</i>                          | <i>Strongly agree</i>                 |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| The advantages of being a teacher clearly outweigh the disadvantages.    | TC026Q01NA01<br><input type="radio"/> | TC026Q01NA02<br><input type="radio"/> | TC026Q01NA03<br><input type="radio"/> | TC026Q01NA04<br><input type="radio"/> |
| If I could decide again, I would still choose to work as a teacher.      | TC026Q02NA01<br><input type="radio"/> | TC026Q02NA02<br><input type="radio"/> | TC026Q02NA03<br><input type="radio"/> | TC026Q02NA04<br><input type="radio"/> |
| I would like to change to another school if that were possible.          | TC026Q03NA01<br><input type="radio"/> | TC026Q03NA02<br><input type="radio"/> | TC026Q03NA03<br><input type="radio"/> | TC026Q03NA04<br><input type="radio"/> |
| I regret that I decided to become a teacher.                             | TC026Q04NA01<br><input type="radio"/> | TC026Q04NA02<br><input type="radio"/> | TC026Q04NA03<br><input type="radio"/> | TC026Q04NA04<br><input type="radio"/> |
| I enjoy working at this school.  | TC026Q05NA01<br><input type="radio"/> | TC026Q05NA02<br><input type="radio"/> | TC026Q05NA03<br><input type="radio"/> | TC026Q05NA04<br><input type="radio"/> |
| I wonder whether it would have been better to choose another profession. | TC026Q06NA01<br><input type="radio"/> | TC026Q06NA02<br><input type="radio"/> | TC026Q06NA03<br><input type="radio"/> | TC026Q06NA04<br><input type="radio"/> |
| I would recommend my school as a good place to work.                     | TC026Q07NA01<br><input type="radio"/> | TC026Q07NA02<br><input type="radio"/> | TC026Q07NA03<br><input type="radio"/> | TC026Q07NA04<br><input type="radio"/> |
| I think that the teaching profession is valued in society.               | TC026Q08NA01<br><input type="radio"/> | TC026Q08NA02<br><input type="radio"/> | TC026Q08NA03<br><input type="radio"/> | TC026Q08NA04<br><input type="radio"/> |
| I am satisfied with my performance in this school.                       | TC026Q09NA01<br><input type="radio"/> | TC026Q09NA02<br><input type="radio"/> | TC026Q09NA03<br><input type="radio"/> | TC026Q09NA04<br><input type="radio"/> |
|  | TC026Q10NA01                          | TC026Q10NA02                          | TC026Q10NA03                          | TC026Q10NA04                          |



All in all, I am satisfied with my job.



## Branching rule

Rule: If (^TC002Q01NA01=20 or ^TC002Q01NA01=22 or ^TC002Q01NA01=24 or ^TC002Q01NA01=26 or ^TC002Q01NA01=28 or ^TC002Q01NA01=30 or ^TC002Q01NA01=32 or ^TC002Q01NA01=34 or ^TC002Q01NA01=36 or ^TC002Q01NA01=38 or ^TC002Q01NA01=40 or ^TC002Q01NA01=42 or ^TC002Q01NA01=44 or ^TC002Q01NA01=46 or ^TC002Q01NA01=48 or ^TC002Q01NA01=50 or ^TC002Q01NA01=52 or ^TC002Q01NA01=54 or ^TC002Q01NA01=56 or ^TC002Q01NA01=58 or ^TC002Q01NA01=60 or ^TC002Q01NA01=62 or ^TC002Q01NA01=64 or ^TC002Q01NA01=66 or ^TC002Q01NA01=68 or ^TC002Q01NA01=70) then GOTO ^TC035 ELSE GOTO ^TC036

**Below you will find descriptions of four <school science> teachers. Please, read each of the descriptions of these teachers, then state to what extent you disagree or agree with the highlighted final statement about the respective teacher.**

*(Please select one response in each row.)*

|  | <i>Strongly disagree</i>              | <i>Disagree</i>                       | <i>Agree</i>                          | <i>Strongly agree</i>                 |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| <p>&lt;Teacher name1&gt; finds his &lt;school science&gt; subject stimulating and regularly improves his knowledge by reading &lt;broad science&gt; articles. He enjoys preparing new &lt;school science&gt; teaching units and likes to interact with students.</p> | TC035Q01NA01<br><input type="radio"/> | TC035Q01NA02<br><input type="radio"/> | TC035Q01NA03<br><input type="radio"/> | TC035Q01NA04<br><input type="radio"/> |

**<Teacher name1> is an enthusiastic teacher.**

|  |                                       |                                       |                                       |                                       |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| <p>&lt;Teacher name2&gt; regards her &lt;school science&gt; subject as just part of her job and she is not interested in professional development. She enjoys preparing new &lt;school science&gt; teaching units and likes to interact with students.</p> | TC035Q02NA01<br><input type="radio"/> | TC035Q02NA02<br><input type="radio"/> | TC035Q02NA03<br><input type="radio"/> | TC035Q02NA04<br><input type="radio"/> |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|

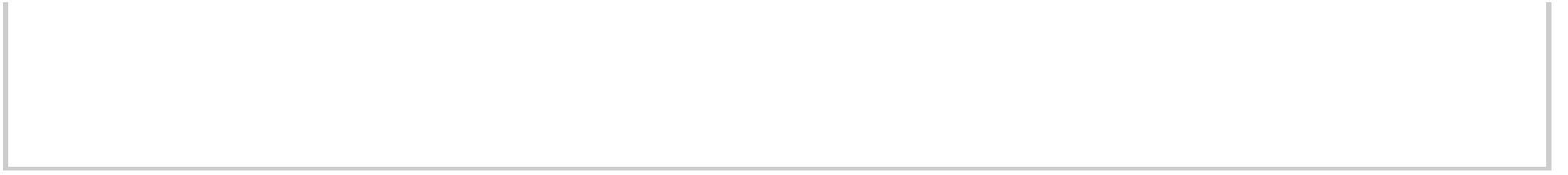
**<Teacher name2> is an enthusiastic teacher.**

|   |                                       |                                       |                                       |                                       |
|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| <p>&lt;Teacher name3&gt; finds his &lt;school science&gt; subject stimulating and regularly improves his knowledge by reading &lt;broad science&gt; articles. He uses prepared lessons and standard teaching materials and often avoids interacting directly with students.</p> | TC035Q03NA01<br><input type="radio"/> | TC035Q03NA02<br><input type="radio"/> | TC035Q03NA03<br><input type="radio"/> | TC035Q03NA04<br><input type="radio"/> |
|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|

**<Teacher name3> is an enthusiastic teacher.**

|   |                                       |                                       |                                       |                                       |
|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| <p>&lt;Teacher name4&gt; regards her &lt;school science&gt; subject as just part of her job and she is not interested in professional development. She uses prepared lessons and standard teaching materials and often avoids interacting directly with students.</p> | TC035Q04NA01<br><input type="radio"/> | TC035Q04NA02<br><input type="radio"/> | TC035Q04NA03<br><input type="radio"/> | TC035Q04NA04<br><input type="radio"/> |
|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|

**<Teacher name4> is an enthusiastic teacher.**



## Branching rule

Rule:        If (^TC002Q01NA01=21 or ^TC002Q01NA01=23 or ^TC002Q01NA01=25 or ^TC002Q01NA01=27  
or ^TC002Q01NA01=29 or ^TC002Q01NA01=31 or ^TC002Q01NA01=33 or ^TC002Q01NA01=35 or  
^TC002Q01NA01=37 or ^TC002Q01NA01=39 or ^TC002Q01NA01=41 or ^TC002Q01NA01=43 or  
^TC002Q01NA01=45 or ^TC002Q01NA01=47 or ^TC002Q01NA01=49 or ^TC002Q01NA01=51 or  
^TC002Q01NA01=53 or ^TC002Q01NA01=55 or ^TC002Q01NA01=57 or ^TC002Q01NA01=59 or  
^TC002Q01NA01=61 or ^TC002Q01NA01=63 or ^TC002Q01NA01=65 or ^TC002Q01NA01=67 or  
^TC002Q01NA01=69 ) then GOTO ^TC6info ELSE GOTO ^TC036

**Keeping your main <school science> subject in mind, how much do you disagree or agree with the following statements?**

*(If you teach the same number of hours for several <school science> subjects, choose only one of them.)*

*(Please select one response in each row.)*

|  | <i>Strongly disagree</i>              | <i>Disagree</i>                       | <i>Agree</i>                          | <i>Strongly agree</i>                 |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| At this time, I am enthusiastic about the <school science> subject that I teach. | TC036Q01NA01<br><input type="radio"/> | TC036Q01NA02<br><input type="radio"/> | TC036Q01NA03<br><input type="radio"/> | TC036Q01NA04<br><input type="radio"/> |
| I enjoy preparing subject content in new ways.                                   | TC036Q02NA01<br><input type="radio"/> | TC036Q02NA02<br><input type="radio"/> | TC036Q02NA03<br><input type="radio"/> | TC036Q02NA04<br><input type="radio"/> |
| I teach my <school science> subject with great enthusiasm.                       | TC036Q03NA01<br><input type="radio"/> | TC036Q03NA02<br><input type="radio"/> | TC036Q03NA03<br><input type="radio"/> | TC036Q03NA04<br><input type="radio"/> |
| I enjoy my <school science> subject and share this enthusiasm with my students.  | TC036Q04NA01<br><input type="radio"/> | TC036Q04NA02<br><input type="radio"/> | TC036Q04NA03<br><input type="radio"/> | TC036Q04NA04<br><input type="radio"/> |
| I enjoy conducting <school science> experiments with my students.                | TC036Q05NA01<br><input type="radio"/> | TC036Q05NA02<br><input type="radio"/> | TC036Q05NA03<br><input type="radio"/> | TC036Q05NA04<br><input type="radio"/> |
| I really enjoy teaching my <school science> subject.                             | TC036Q06NA01<br><input type="radio"/> | TC036Q06NA02<br><input type="radio"/> | TC036Q06NA03<br><input type="radio"/> | TC036Q06NA04<br><input type="radio"/> |
| I enjoy preparing good questions for my students.                                | TC036Q07NA01<br><input type="radio"/> | TC036Q07NA02<br><input type="radio"/> | TC036Q07NA03<br><input type="radio"/> | TC036Q07NA04<br><input type="radio"/> |
| I'm interested in my students' individual academic development.                  | TC036Q08NA01<br><input type="radio"/> | TC036Q08NA02<br><input type="radio"/> | TC036Q08NA03<br><input type="radio"/> | TC036Q08NA04<br><input type="radio"/> |
| For me, science is my subject to give a fun, formative, authentic                | TC036Q09NA01<br><input type="radio"/> | TC036Q09NA02<br><input type="radio"/> | TC036Q09NA03<br><input type="radio"/> | TC036Q09NA04<br><input type="radio"/> |

|   |                                       |                                       |                                       |                                       |
|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Engaging in my subject is one of my favourite activities.                                     | <input type="radio"/>                 | <input type="radio"/>                 | <input type="radio"/>                 | <input type="radio"/>                 |
| I enjoy discussing various solutions with my students.  | TC036Q10NA01<br><input type="radio"/> | TC036Q10NA02<br><input type="radio"/> | TC036Q10NA03<br><input type="radio"/> | TC036Q10NA04<br><input type="radio"/> |
| I always enjoy teaching students new things.  | TC036Q11NA01<br><input type="radio"/> | TC036Q11NA02<br><input type="radio"/> | TC036Q11NA03<br><input type="radio"/> | TC036Q11NA04<br><input type="radio"/> |
| I engage in my subject because I enjoy it.  | TC036Q12NA01<br><input type="radio"/> | TC036Q12NA02<br><input type="radio"/> | TC036Q12NA03<br><input type="radio"/> | TC036Q12NA04<br><input type="radio"/> |
| I enjoy discussing with my students how to solve a problem.                                   | TC036Q13NA01<br><input type="radio"/> | TC036Q13NA02<br><input type="radio"/> | TC036Q13NA03<br><input type="radio"/> | TC036Q13NA04<br><input type="radio"/> |
| I enjoy interacting with students.  | TC036Q14NA01<br><input type="radio"/> | TC036Q14NA02<br><input type="radio"/> | TC036Q14NA03<br><input type="radio"/> | TC036Q14NA04<br><input type="radio"/> |
| I enjoy the preparation work involved in teaching a broad topic.                              | TC036Q15NA01<br><input type="radio"/> | TC036Q15NA02<br><input type="radio"/> | TC036Q15NA03<br><input type="radio"/> | TC036Q15NA04<br><input type="radio"/> |
| I enjoy seeing the benefits that my classroom management brings to students.                  | TC036Q16NA01<br><input type="radio"/> | TC036Q16NA02<br><input type="radio"/> | TC036Q16NA03<br><input type="radio"/> | TC036Q16NA04<br><input type="radio"/> |
| Because I enjoy engaging in my subject, I will continue to teach it.                          | TC036Q17NA01<br><input type="radio"/> | TC036Q17NA02<br><input type="radio"/> | TC036Q17NA03<br><input type="radio"/> | TC036Q17NA04<br><input type="radio"/> |
| My students and I enjoy applying natural <broad science> phenomena to everyday life problems. | TC036Q18NA01<br><input type="radio"/> | TC036Q18NA02<br><input type="radio"/> | TC036Q18NA03<br><input type="radio"/> | TC036Q18NA04<br><input type="radio"/> |
| It's a pleasure to teach.   | TC036Q19NA01<br><input type="radio"/> | TC036Q19NA02<br><input type="radio"/> | TC036Q19NA03<br><input type="radio"/> | TC036Q19NA04<br><input type="radio"/> |
| I enjoy spending time on course design.   | TC036Q20NA01<br><input type="radio"/> | TC036Q20NA02<br><input type="radio"/> | TC036Q20NA03<br><input type="radio"/> | TC036Q20NA04<br><input type="radio"/> |





## Branching rule

Rule: If (^TC002Q01NA01=21 or ^TC002Q01NA01=23 or ^TC002Q01NA01=25 or ^TC002Q01NA01=27 or ^TC002Q01NA01=29 or ^TC002Q01NA01=31 or ^TC002Q01NA01=33 or ^TC002Q01NA01=35 or ^TC002Q01NA01=37 or ^TC002Q01NA01=39 or ^TC002Q01NA01=41 or ^TC002Q01NA01=43 or ^TC002Q01NA01=45 or ^TC002Q01NA01=47 or ^TC002Q01NA01=49 or ^TC002Q01NA01=51 or ^TC002Q01NA01=53 or ^TC002Q01NA01=55 or ^TC002Q01NA01=57 or ^TC002Q01NA01=59 or ^TC002Q01NA01=61 or ^TC002Q01NA01=63 or ^TC002Q01NA01=65 or ^TC002Q01NA01=67 or ^TC002Q01NA01=69 ) then GOTO ^TC035 ELSE GOTO ^TC6info

## **Section E: Science teaching practices**

## How often do these things happen in your <school science> lessons?

(Please select one response in each row.)

|  | <i>Never or almost never</i>          | <i>Some lessons</i>                   | <i>Many lessons</i>                   | <i>Every lesson or almost every lesson</i> |
|--|---------------------------------------|---------------------------------------|---------------------------------------|--|
| Students are asked to draw conclusions from an experiment they have conducted. | TC037Q01NA01<br><input type="radio"/> | TC037Q01NA02<br><input type="radio"/> | TC037Q01NA03<br><input type="radio"/> | TC037Q01NA04<br><input type="radio"/>      |
| Students are given opportunities to explain their ideas.                       | TC037Q02NA01<br><input type="radio"/> | TC037Q02NA02<br><input type="radio"/> | TC037Q02NA03<br><input type="radio"/> | TC037Q02NA04<br><input type="radio"/>      |
| I explain scientific ideas.  | TC037Q03NA01<br><input type="radio"/> | TC037Q03NA02<br><input type="radio"/> | TC037Q03NA03<br><input type="radio"/> | TC037Q03NA04<br><input type="radio"/>      |
| A small group discussion between students takes place.                         | TC037Q04NA01<br><input type="radio"/> | TC037Q04NA02<br><input type="radio"/> | TC037Q04NA03<br><input type="radio"/> | TC037Q04NA04<br><input type="radio"/>      |
| A whole class discussion takes place in which I participate.                   | TC037Q05NA01<br><input type="radio"/> | TC037Q05NA02<br><input type="radio"/> | TC037Q05NA03<br><input type="radio"/> | TC037Q05NA04<br><input type="radio"/>      |
| Current scientific issues are discussed.                                       | TC037Q06NA01<br><input type="radio"/> | TC037Q06NA02<br><input type="radio"/> | TC037Q06NA03<br><input type="radio"/> | TC037Q06NA04<br><input type="radio"/>      |
| Students make calculations using scientific formulas.                          | TC037Q07NA01<br><input type="radio"/> | TC037Q07NA02<br><input type="radio"/> | TC037Q07NA03<br><input type="radio"/> | TC037Q07NA04<br><input type="radio"/>      |
| I use an interactive white board.  | TC037Q08NA01<br><input type="radio"/> | TC037Q08NA02<br><input type="radio"/> | TC037Q08NA03<br><input type="radio"/> | TC037Q08NA04<br><input type="radio"/>      |
| Students do their own scientific study and related research.                   | TC037Q09NA01<br><input type="radio"/> | TC037Q09NA02<br><input type="radio"/> | TC037Q09NA03<br><input type="radio"/> | TC037Q09NA04<br><input type="radio"/>      |
|  | TC037Q10NA01                          | TC037Q10NA02                          | TC037Q10NA03                          | TC037Q10NA04                               |

|  |                                       |                                       |                                       |                                       |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| I discuss questions that students ask.               | TC037Q10NA01<br><input type="radio"/> | TC037Q10NA02<br><input type="radio"/> | TC037Q10NA03<br><input type="radio"/> | TC037Q10NA04<br><input type="radio"/> |
| Students carry out practical work.                   | TC037Q11NA01<br><input type="radio"/> | TC037Q11NA02<br><input type="radio"/> | TC037Q11NA03<br><input type="radio"/> | TC037Q11NA04<br><input type="radio"/> |
| Students write up laboratory reports.                | TC037Q12NA01<br><input type="radio"/> | TC037Q12NA02<br><input type="radio"/> | TC037Q12NA03<br><input type="radio"/> | TC037Q12NA04<br><input type="radio"/> |
| I demonstrate an idea.                               | TC037Q13NA01<br><input type="radio"/> | TC037Q13NA02<br><input type="radio"/> | TC037Q13NA03<br><input type="radio"/> | TC037Q13NA04<br><input type="radio"/> |
| I discuss questions of practical relevance.          | TC037Q14NA01<br><input type="radio"/> | TC037Q14NA02<br><input type="radio"/> | TC037Q14NA03<br><input type="radio"/> | TC037Q14NA04<br><input type="radio"/> |
| Students read materials from a textbook.             | TC037Q15NA01<br><input type="radio"/> | TC037Q15NA02<br><input type="radio"/> | TC037Q15NA03<br><input type="radio"/> | TC037Q15NA04<br><input type="radio"/> |
| Students take notes from the board.                  | TC037Q16NA01<br><input type="radio"/> | TC037Q16NA02<br><input type="radio"/> | TC037Q16NA03<br><input type="radio"/> | TC037Q16NA04<br><input type="radio"/> |
| Students discuss materials from a textbook.          | TC037Q17NA01<br><input type="radio"/> | TC037Q17NA02<br><input type="radio"/> | TC037Q17NA03<br><input type="radio"/> | TC037Q17NA04<br><input type="radio"/> |
| Students watch videos.                               | TC037Q18NA01<br><input type="radio"/> | TC037Q18NA02<br><input type="radio"/> | TC037Q18NA03<br><input type="radio"/> | TC037Q18NA04<br><input type="radio"/> |
| Students use the internet.                           | TC037Q19NA01<br><input type="radio"/> | TC037Q19NA02<br><input type="radio"/> | TC037Q19NA03<br><input type="radio"/> | TC037Q19NA04<br><input type="radio"/> |
| The class corrects homework or a test.               | TC037Q20NA01<br><input type="radio"/> | TC037Q20NA02<br><input type="radio"/> | TC037Q20NA03<br><input type="radio"/> | TC037Q20NA04<br><input type="radio"/> |
| Students fill out worksheets.                        | TC037Q21NA01<br><input type="radio"/> | TC037Q21NA02<br><input type="radio"/> | TC037Q21NA03<br><input type="radio"/> | TC037Q21NA04<br><input type="radio"/> |
| Students present something to the rest of the class. | TC037Q22NA01<br><input type="radio"/> | TC037Q22NA02<br><input type="radio"/> | TC037Q22NA03<br><input type="radio"/> | TC037Q22NA04<br><input type="radio"/> |



### How often do these situations occur in your <school science> lessons?

(Please select one response in each row.)

|   | <i>Never or almost never</i>          | <i>Some lessons</i>                   | <i>Many lessons</i>                   | <i>Every lesson or almost every lesson</i> |
|---|---------------------------------------|---------------------------------------|---------------------------------------|--|
| I tailor my teaching to meet the needs of my students.  | TC038Q01NA01<br><input type="radio"/> | TC038Q01NA02<br><input type="radio"/> | TC038Q01NA03<br><input type="radio"/> | TC038Q01NA04<br><input type="radio"/>      |
| I provide individual help when a student has difficulties understanding a topic or task.        | TC038Q02NA01<br><input type="radio"/> | TC038Q02NA02<br><input type="radio"/> | TC038Q02NA03<br><input type="radio"/> | TC038Q02NA04<br><input type="radio"/>      |
| I change the structure of my lesson on a topic that most students find difficult to understand. | TC038Q03NA01<br><input type="radio"/> | TC038Q03NA02<br><input type="radio"/> | TC038Q03NA03<br><input type="radio"/> | TC038Q03NA04<br><input type="radio"/>      |
| I provide individual support for advanced students.   | TC038Q04NA01<br><input type="radio"/> | TC038Q04NA02<br><input type="radio"/> | TC038Q04NA03<br><input type="radio"/> | TC038Q04NA04<br><input type="radio"/>      |

**To what extent do you disagree or agree with the following statements about you teaching practices?**

*(Please select one response in each row.)*

|  | <i>Strongly disagree</i>              | <i>Disagree</i>                       | <i>Agree</i>                          | <i>Strongly agree</i>                 |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| I am interested in my students' school activities.   | TC027Q01NA01<br><input type="radio"/> | TC027Q01NA02<br><input type="radio"/> | TC027Q01NA03<br><input type="radio"/> | TC027Q01NA04<br><input type="radio"/> |
| I support my students' educational efforts.  | TC027Q02NA01<br><input type="radio"/> | TC027Q02NA02<br><input type="radio"/> | TC027Q02NA03<br><input type="radio"/> | TC027Q02NA04<br><input type="radio"/> |
| I support my students when they are facing school difficulties.                              | TC027Q03NA01<br><input type="radio"/> | TC027Q03NA02<br><input type="radio"/> | TC027Q03NA03<br><input type="radio"/> | TC027Q03NA04<br><input type="radio"/> |
| I encourage my students to be confident.   | TC027Q04NA01<br><input type="radio"/> | TC027Q04NA02<br><input type="radio"/> | TC027Q04NA03<br><input type="radio"/> | TC027Q04NA04<br><input type="radio"/> |
| I encourage my students to learn new skills.   | TC027Q05NA01<br><input type="radio"/> | TC027Q05NA02<br><input type="radio"/> | TC027Q05NA03<br><input type="radio"/> | TC027Q05NA04<br><input type="radio"/> |
| I provide my students with information about their performance in school.                    | TC027Q06NA01<br><input type="radio"/> | TC027Q06NA02<br><input type="radio"/> | TC027Q06NA03<br><input type="radio"/> | TC027Q06NA04<br><input type="radio"/> |
| I provide my students with clues and suggestions that help them to move forward with a task. | TC027Q07NA01<br><input type="radio"/> | TC027Q07NA02<br><input type="radio"/> | TC027Q07NA03<br><input type="radio"/> | TC027Q07NA04<br><input type="radio"/> |
| I instruct my students what to do to complete a task and explain why to do so.               | TC027Q08NA01<br><input type="radio"/> | TC027Q08NA02<br><input type="radio"/> | TC027Q08NA03<br><input type="radio"/> | TC027Q08NA04<br><input type="radio"/> |
| I give detailed information and clarification to my students about the learning task.        | TC027Q09NA01<br><input type="radio"/> | TC027Q09NA02<br><input type="radio"/> | TC027Q09NA03<br><input type="radio"/> | TC027Q09NA04<br><input type="radio"/> |
| I demonstrate particular skills that are important to solve a task or to                     | TC027Q10NA01<br><input type="radio"/> | TC027Q10NA02<br><input type="radio"/> | TC027Q10NA03<br><input type="radio"/> | TC027Q10NA04<br><input type="radio"/> |

learn for school.



I ask my students questions to initiate a deeper understanding of the content.

TC027Q11NA01



TC027Q11NA02



TC027Q11NA03



TC027Q11NA04





## **Section F: Your school**

**Is your school's capacity to provide instruction hindered by any of the following issues?**

*(Please select one response in each row.)*

|  | <i>Not at all</i>                     | <i>Very little</i>                    | <i>To some extent</i>                 | <i>A lot</i>                          |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| A lack of teaching staff.  | TC028Q01NA01<br><input type="radio"/> | TC028Q01NA02<br><input type="radio"/> | TC028Q01NA03<br><input type="radio"/> | TC028Q01NA04<br><input type="radio"/> |
| Inadequate or poorly qualified teaching staff.   | TC028Q02NA01<br><input type="radio"/> | TC028Q02NA02<br><input type="radio"/> | TC028Q02NA03<br><input type="radio"/> | TC028Q02NA04<br><input type="radio"/> |
| A lack of assisting staff.   | TC028Q03NA01<br><input type="radio"/> | TC028Q03NA02<br><input type="radio"/> | TC028Q03NA03<br><input type="radio"/> | TC028Q03NA04<br><input type="radio"/> |
| Inadequate or poorly qualified assisting staff.  | TC028Q04NA01<br><input type="radio"/> | TC028Q04NA02<br><input type="radio"/> | TC028Q04NA03<br><input type="radio"/> | TC028Q04NA04<br><input type="radio"/> |
| A lack of educational material (e.g. textbooks, IT equipment, library or laboratory material).                               | TC028Q05NA01<br><input type="radio"/> | TC028Q05NA02<br><input type="radio"/> | TC028Q05NA03<br><input type="radio"/> | TC028Q05NA04<br><input type="radio"/> |
| Inadequate or poor quality educational material (e.g. textbooks, IT equipment, library or laboratory material).              | TC028Q06NA01<br><input type="radio"/> | TC028Q06NA02<br><input type="radio"/> | TC028Q06NA03<br><input type="radio"/> | TC028Q06NA04<br><input type="radio"/> |
| A lack of physical infrastructure (e.g. building, grounds, heating/cooling, lighting and acoustic systems).                  | TC028Q07NA01<br><input type="radio"/> | TC028Q07NA02<br><input type="radio"/> | TC028Q07NA03<br><input type="radio"/> | TC028Q07NA04<br><input type="radio"/> |
| Inadequate or poor quality physical infrastructure (e.g. building, grounds, heating/cooling, lighting and acoustic systems). | TC028Q08NA01<br><input type="radio"/> | TC028Q08NA02<br><input type="radio"/> | TC028Q08NA03<br><input type="radio"/> | TC028Q08NA04<br><input type="radio"/> |



**Is there any formal curriculum for <school science> in <national modal grade for 15-year-olds>?**

*(Please consider national, state, regional, or school policies.)*

*(Please select one response.)*

Yes

TC039Q01NA01

No

TC039Q01NA02

## Branching rule

Rule:        If (^TC039Q01NA01=1) then GOTO ^TC040 else GOTO ^TC8info

**Does the curriculum for <school science> for <the national modal grade of 15-year-olds> include the following topics?**

*(Please select one response in each row.)*

|  | <i>Yes</i>                            | <i>No</i>                             |
|--|---------------------------------------|---------------------------------------|
| Teaching goals and objectives                          | TC040Q01NA01<br><input type="radio"/> | TC040Q01NA02<br><input type="radio"/> |
| Teaching processes or methods                          | TC040Q02NA01<br><input type="radio"/> | TC040Q02NA02<br><input type="radio"/> |
| Teaching material                                      | TC040Q03NA01<br><input type="radio"/> | TC040Q03NA02<br><input type="radio"/> |
| Percentage of students expected to reach defined goals | TC040Q04NA01<br><input type="radio"/> | TC040Q04NA02<br><input type="radio"/> |
| Content  | TC040Q05NA01<br><input type="radio"/> | TC040Q05NA02<br><input type="radio"/> |
| Values and norms                                       | TC040Q06NA01<br><input type="radio"/> | TC040Q06NA02<br><input type="radio"/> |

**How much emphasis is given to the following approaches and processes in the intended <school science> <curriculum> for <the national modal grade of 15-year-olds>?**

*(Please select one response in each row.)*

|   | <i>No emphasis</i>                    | <i>Very little emphasis</i>           | <i>Some emphasis</i>                  | <i>A lot of emphasis</i>              |
|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Knowing basic science facts and principles                        | TC041Q01NA01<br><input type="radio"/> | TC041Q01NA02<br><input type="radio"/> | TC041Q01NA03<br><input type="radio"/> | TC041Q01NA04<br><input type="radio"/> |
| Observing natural phenomena and describing what is seen           | TC041Q02NA01<br><input type="radio"/> | TC041Q02NA02<br><input type="radio"/> | TC041Q02NA03<br><input type="radio"/> | TC041Q02NA04<br><input type="radio"/> |
| Providing explanations of what is being studied                   | TC041Q03NA01<br><input type="radio"/> | TC041Q03NA02<br><input type="radio"/> | TC041Q03NA03<br><input type="radio"/> | TC041Q03NA04<br><input type="radio"/> |
| Designing and planning experiments or investigations              | TC041Q04NA01<br><input type="radio"/> | TC041Q04NA02<br><input type="radio"/> | TC041Q04NA03<br><input type="radio"/> | TC041Q04NA04<br><input type="radio"/> |
| Conducting experiments or investigations                          | TC041Q05NA01<br><input type="radio"/> | TC041Q05NA02<br><input type="radio"/> | TC041Q05NA03<br><input type="radio"/> | TC041Q05NA04<br><input type="radio"/> |
| Integrating science with other subjects                           | TC041Q06NA01<br><input type="radio"/> | TC041Q06NA02<br><input type="radio"/> | TC041Q06NA03<br><input type="radio"/> | TC041Q06NA04<br><input type="radio"/> |
| Relating what students are learning to their daily lives          | TC041Q07NA01<br><input type="radio"/> | TC041Q07NA02<br><input type="radio"/> | TC041Q07NA03<br><input type="radio"/> | TC041Q07NA04<br><input type="radio"/> |
| Incorporating the experiences of different ethnic/cultural groups | TC041Q08NA01<br><input type="radio"/> | TC041Q08NA02<br><input type="radio"/> | TC041Q08NA03<br><input type="radio"/> | TC041Q08NA04<br><input type="radio"/> |





**In which format is the intended <school science> <curriculum> for <national modal grade for 15-year-olds> made available to teaching staff?**

*(Please select one response in each row.)*

|   | Yes                                   | No                                    |
|---|---------------------------------------|---------------------------------------|
| Official publication containing the complete curriculum   | TC042Q01NA01<br><input type="radio"/> | TC042Q01NA02<br><input type="radio"/> |
| Ministry notes and directives   | TC042Q02NA01<br><input type="radio"/> | TC042Q02NA02<br><input type="radio"/> |
| Mandated or recommended textbooks   | TC042Q03NA01<br><input type="radio"/> | TC042Q03NA02<br><input type="radio"/> |
| Instructional or pedagogical guidelines   | TC042Q04NA01<br><input type="radio"/> | TC042Q04NA02<br><input type="radio"/> |
| Specifically developed or recommended instructional activities  | TC042Q05NA01<br><input type="radio"/> | TC042Q05NA02<br><input type="radio"/> |
| Written specification of the school's curricular profile and educational goals  | TC042Q06NA01<br><input type="radio"/> | TC042Q06NA02<br><input type="radio"/> |
| Written specification of student performance standards  | TC042Q07NA01<br><input type="radio"/> | TC042Q07NA02<br><input type="radio"/> |
| Implementation of a standardised policy for <school science> (i.e. school curriculum with shared instructional materials accompanied by staff development and training) | TC042Q08NA01<br><input type="radio"/> | TC042Q08NA02<br><input type="radio"/> |



**Are parents informed about the availability and content of the <school science> curriculum (e.g. in a parent-teacher conference or a newsletter)?**

*(Please select one response.)*

Yes

TC043Q01NA01

No

TC043Q01NA02

**Are students informed about the availability and content of the <school science> curriculum (e.g. during a school assembly or in a newsletter)?**

*(Please select one response.)*

Yes

TC044Q01NA01

No

TC044Q01NA02

**Thank you very much for your co-operation in completing this questionnaire!**