Dear Twin:

This questionnaire is a part of a medical research project studying the influence of genetic inheritance and the environment on health and factors influencing health.

We are asking you to participate in our study; your role would be to answer this questionnaire. From a scientific perspective, it is important that everyone who receives this questionnaire answers it. The forms have been numbered for data processing purposes. Thus, we avoid sending a new form to those who have already answered.

If your parents would like to see this form, we hope they would do so before you answer the questions in it. For the reliability of the study it is very important that you answer the questions independently.

Be thorough in answering the questions. We hope you find the time to complete the questionnaire within seven days.

Return the completed questionnaire in the enclosed return envelope. You can drop it at the post office without a stamp. We will pay for postage.

NOTICE: YOUR IDENTITY AND THE INFORMATION YOU GIVE WILL REMAIN COMPLETELY CONFIDENTIAL. The results of the research will be studied in the form of tables compiled from all answers, and won’t reveal answers given by individual participants.
HOW TO ANSWER:

It is easy to fill in the questionnaire. You will always answer each question or sub-question by circling one of the alternatives. The alternatives have been numbered. Take a look at example 1.

Some of the questions have, after the answer alternatives, a supplementary question or an indication to move on to a certain other question. Look at example 2.

In some of the questions you are asked to write something. Look at example 3.

If you have to correct an answer, cross out the incorrect answer.

EXAMPLES:

EXAMPLE 1  In the past month, have you visited the following

<table>
<thead>
<tr>
<th></th>
<th>never</th>
<th>once</th>
</tr>
</thead>
<tbody>
<tr>
<td>School health nurse</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Athletic competition</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

(in this example the person giving the answers had visited the school health nurse once and had not visited an athletic competition during the past month)

EXAMPLE 2  Do you know your blood type?

1 no ----> go to the next question
2 yes ----> what is your blood type? _______________
(here the person answering knew his/her blood type)

EXAMPLE 3  Which town/municipality do you live in?

(in this example the person lives in Lappeenranta)
HERE BEGIN THE ACTUAL QUESTIONS

1. What is your first name? __________________________

2. What is your date of birth?

______________________________ day  month  year

3. Are you a (circle) girl/boy

4. How tall are you? _______ cm

5. How much do you weigh? _______ kg

6. Is your twin of the same sex as you?

1. no ----> go to question 10
2. yes

7. Did you and your twin look virtually identical when you were attending the lower grades of school, or did you look no more alike than siblings in general?

1. virtually identical
2. like siblings in general
3. I can't say

8. Did you and your twin look so alike during your first years at school that people had difficulties telling you apart?

1. no
2. yes
3. I can't remember

9. Who could tell you two apart during your first years at school?

   teacher 1. yes
   2. no

   classmates 1. yes
   2. no

   other somewhat less familiar people 1. yes
   2. no

The following questions deal with friends, hobbies and leisure time.

10. How much leisure time do you spend with your twin?

1. I spend almost all my leisure time with my twin
2. I spend somewhat more of my leisure time with my twin than with others
3. I spend somewhat more of my leisure time with others than with my twin
4. I spend most of my leisure time with others, not my twin
5. We live apart, we do not have much chance to be together
6. I can't say

11. Do you and your twin have shared hobbies and interests?
   1. yes, they are identical
   2. they are nearly identical
   3. most of them are different
   4. none at all

12. Do you have common friends?
   1. we share all our friends
   2. we share most of our friends
   3. most of our friends are different
   4. none at all

13. Who is your best friend?
   1. my twin
   2. another sibling
   3. a classmate of mine
   4. somebody else
   5. I cannot say

14. How much money do you use a week on candy and other snacks?
   1. none
   2. 1-10 marks every week
   3. 11-20 marks every week
   4. 21-50 marks every week
   5. over 50 marks every week

15. Is one of your parents or some other adult at home when you come home from school nowadays?
   1. yes, mom or dad
   2. yes, some other adult, who______________
   3. no - How many hours did you have to wait last week before an adult got home?
   
   _____ hours Monday
   _____ hours Tuesday
   _____ hours Wednesday
   _____ hours Thursday
   _____ hours Friday

16. How much time do you spend doing/how often do you do the following?
   Estimate each statement separately.

<table>
<thead>
<tr>
<th>daily</th>
<th>A few times</th>
<th>a week</th>
<th>a month</th>
<th>in 6 months</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Watching tv</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Watching videos</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>Everyday</td>
<td>A few times a week</td>
<td>A few times a month</td>
<td>A few times a year</td>
<td>Never</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>----------</td>
<td>--------------------</td>
<td>---------------------</td>
<td>-------------------</td>
<td>-------</td>
</tr>
<tr>
<td>playing computer games</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>listening to music</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>playing board games</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>playing an instrument</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>reading</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>drawing, painting</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>doing crafts/building models</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>with friends at my home</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>with friends at their homes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>in the city/in your village/places of meeting for youth</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>clubs/scouts or other guided activities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>sports (e.g. team games, training)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>physical exercise, outdoor recreation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The following question deals with common family interests.

17. How often do you do some of the following with your parents? Estimate each item separately.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Everyday</th>
<th>A few times a week</th>
<th>A few times a month</th>
<th>A few times a year</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>discuss something</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>go to culture events, the theatre, movies and so on</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>sports</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>favorite hobbies</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>trips, travels, visiting</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
The following questions deal with your relationship with your parents.

18. My parents know about my daily program:
   1. almost always
   2. usually
   3. sometimes
   4. rarely or almost never

19. My parents have a pretty good idea of my interests, my activities, and whereabouts every day:
   1. almost always
   2. usually
   3. only sometimes
   4. rarely or never

20. My parents know where I am and with whom when I am not at home:
   1. almost always
   2. usually
   3. only sometimes
   4. rarely or never

21. My parents listen to my opinions:
   1. almost always
   2. usually
   3. only sometimes
   4. rarely or never

22. My parents thank and encourage me (circle one)
   1. almost always
   2. usually
   3. only sometimes
   4. rarely or never

23. My parents encourage me to be independent (circle one)
   1. almost always
   2. usually
   3. only sometimes
   4. rarely or never

24. My parents punish me if I do something I’m not allowed to do (circle one)
   1. almost always
   2. usually
   3. only sometimes
   4. rarely or never

25. If I’ve behaved badly, my parents try to sort it out by discussing it (circle one)
1. almost always
2. usually
3. only sometimes
4. rarely or never

26. Which of the following characteristics describe your home atmosphere, and in what degree? Estimate each statement independently.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>holds completely true</th>
<th>holds usually true</th>
<th>holds true to some degree</th>
<th>holds true only a bit</th>
<th>does not hold true</th>
</tr>
</thead>
<tbody>
<tr>
<td>warm, caring</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>creative, supportive</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>trusting, understanding</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>open</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>strict</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>unjust</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>conflicting</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>indifferent</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The following questions deal with your degree of satisfaction. (Estimate each statement separately.)

27. Are you satisfied with your:

<table>
<thead>
<tr>
<th>Activity</th>
<th>completely</th>
<th>mainly yes</th>
<th>somewhat</th>
<th>mainly no</th>
<th>not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>spending leisure time at home</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>spending leisure time outside the home</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>success at school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>relationship with your mother</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>relationship with your father</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>relationship with your twin</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>relationship with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The following questions deal with aches and ailments you may have had. Mark the correct alternatives with an X (Only one alternative per symptom!).

28. Think of the time between the summer and today. How often have you had the following symptoms since last summer (you can see a description of the different body parts or figures below)?

<table>
<thead>
<tr>
<th>Pain or tenderness</th>
<th>Almost every day</th>
<th>More than once a week</th>
<th>About once a week</th>
<th>About once a month</th>
<th>Rarely or never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neck and Shoulders (A)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper extremities (arms) (B)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chest (C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower extremities (legs) (D)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper back (E)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower back (F)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buttocks (G)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

29. Think about the time between last summer and today. How often have you had the following symptoms since last summer?

<table>
<thead>
<tr>
<th></th>
<th>Almost every day</th>
<th>More than once a week</th>
<th>About once a week</th>
<th>About once a month</th>
<th>Rarely or never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stomach ache</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulties falling asleep</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tired in the day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keep waking up at night</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Tension and nervousness

Irritation and aggressiveness

Dizziness

30. Pain Drawing. Mark the areas where you’ve had pain or tenderness at least once a month since last summer in red in the figures below. If you have not experienced any pain or tenderness leave the figure unmarked.

31. Have you hurt any of the areas you’ve marked above (falling, tripping, sports injuries, etc.)?

1 no
2 yes -> circle the area that you have hurt in blue in the above figure

32. Circle all the alternatives that have applied to you during this semester.

1 strain makes pain worse (running, skating, skiing, etc.)
2 my arms or legs feel swollen
3 I don’t sleep well
4 I feel tired even in the day
5 I am tense and nervous
6 bad weather makes my pains worse
7 sensation of numbness in my arms and legs
8 being nervous makes my pains worse
9 I have stomach aches (gas, constipation, diarrhea)
10 I have headaches

Growth and Development

Many physical, personal and emotional changes happen to girls/boys with their development into womanhood/manhood. Physical growth and development are a very important part of growing up. Because these changes happen to different people at different rates, we are interested in your present growth and developmental stage. Your answers will only be revealed to the researchers. We ask you to answer the questions truthfully so that we may get new information regarding twin girls/boys in your age group.

Directions: Circle the alternative that best describes your situation. Only mark one alternative for each question.

33. Which of the following best describes your growth in height?

1. growth spurt has not taken place
2. growth spurt is beginning
3. growth spurt is rapidly underway
34. How would you describe your growth of body hair (body hair means underarm and pubic hair). Which of the following best describes your body hair?

1. no body hair
2. some body hair
3. definite body hair

35. Have you noticed any skin changes (ex. pimples)?

1. no
2. some
3. definite skin changes

36. Have your breasts developed? Boys: Has your voice begun to change?

1. no
2. breast growth is beginning
3. breasts are clearly growing

1. no
2. voice is beginning to change
3. voice change is underway

37. Have you begun to menstruate? Boys: Has hair begun to grow on your face?

1. no
2. yes

1. no
2. facial hair is beginning to grow
3. facial hair is clearly growing

If your answer is yes, then at what age did you begin to menstruate?

_____year _____month

The questions end here. We ask you kindly to check your responses to make sure that you have answered the questions according to the directions given.

We thank you for your help with this study.

Did you answer the questions?

1. completely on your own
2. I discussed some of the questions with my twin brother/sister before answering
3. I discussed some of the questions with my parents before answering
4. I needed someone else's help to answer many of the questions.

Who's help? ____________________

How was it for you to answer the questions?

1. easy
2. fairly easy
3. fairly difficult
4. difficult

Questions that are different in boy’s/girl’s questionnaire (12 yrs) for cohort 1983:
9. Do you and your twin share hobbies?

1 We share all our hobbies  
2 We share most of our hobbies  
3 We have completely different hobbies

10. Do you and your twin have common friends?

1 All our friends are common  
2 Most of our friends are common  
3 We have no common friends

19. Which of the following characteristics best describe the atmosphere in your home and to what degree? Evaluate each statement independently.

1 Holds completely true  
2 Holds true fairly well  
3 Holds somewhat true  
4 Holds true only a bit  
5 Not true at all

Warm, caring 1 2 3 4 5  
Motivating, encouraging 1 2 3 4 5  
Dependable, understanding 1 2 3 4 5  
Open 1 2 3 4 5  
Strict 1 2 3 4 5  
Unjust 1 2 3 4 5  
Quarrelsome 1 2 3 4 5  
Indifferent 1 2 3 4 5

THE FOLLOWING QUESTION CONCERNS YOUR SCHOOL PERFORMANCE

21. YOUR GRADE-POINT AVERAGE FROM LAST SPRING

1 Better than 8.5  
2 8.0 - 8.5  
3 7.5 - 7.9  
4 7.0 - 7.4  
5 6.5 - 6.9  
6 6.0 - 6.4  
7 below 6.0

(grades from 4 to 10)