Please note the time that you started to read this questionnaire:

Date: D M Y

Dear Student,

Please read this section before you begin

In this questionnaire, we want to find out more about the reasons some students continue to study physics after the age of 16 and others do not. We are asking you for some personal details, such as your name because we are interested in how students’ answers may change over time and we hope that you will help us again by answering similar questions in about two years’ time. There are questions in here about your views on school, family and physics. There are also some physics-based tasks, but we would like to emphasise these have nothing to do with your school marks. We simply would like to compare your answers to these task items with your attitudes to physics.

We hope you will answer all the questions but if you feel uncomfortable with a particular question feel free to skip it.

All answers are confidential.

Your teachers and your school will not see your answers.

Thank you for helping us!
1. ABOUT YOU

a) In which year do you think you will be taking your physics GCSE? Please tick.

- [ ] Year 9
- [ ] Year 10
- [ ] Year 11
- [ ] Don’t Know

b) How many brothers and sisters do you have? __________
c) How many are younger than you? __________ d) How many are older? __________
e) What is your gender? [ ] Male [ ] Female

f) What is your first name? ______________________
g) What is your surname? ______________________
h) What is your date of birth? Day ____________ Month ____________ Year ____________
i) What is the name of your school? ______________________
j) Which physics set are you in? ______________________
k) Which science class are you in? ______________________
l) How many different physics teachers have you had since you started this school? ____________
m) How many different schools (primary & secondary) have you attended, including this one? ____________

n) What are your parents’/carers’ occupations?

<table>
<thead>
<tr>
<th>Option</th>
<th>Mother or Carer 1</th>
<th>Father or Carer 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) <strong>Professional</strong> (e.g. manager, doctor, teacher, dentist, nurse, …)</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>2) <strong>Clerical and skilled non-manual</strong> (e.g. Secretary, clerk, typist, receptionist, Civil Service and Local Government Employee (Administrative, Executive and Clerical Grades), …)</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>3) <strong>Senior official</strong> (e.g. inspector, senior police officer, fire service and prison officer, immigration officer, customs officer, surveyor, …)</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>4) <strong>Store worker</strong> (e.g. sales representative, shop sales person, …)</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>5) <strong>Skilled manual worker</strong> (someone who has specialist skills, e.g. plumber, electrician, fitter, foreman, bus driver or conductor, police constable, agricultural worker, chef/cook, …)</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>6) <strong>Semi-skilled manual</strong> (a job requiring a small amount of training or experience to start, e.g. hairdresser, beautician, housekeeper, caretaker, childcare worker, …)</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>7) <strong>Unskilled worker</strong> (general labourer, porter, casual worker, lorry driver, window cleaner, domestic cleaner, caterer, bar staff)</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>8) <strong>Homemaker</strong> (househusband or housewife)</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>9) <strong>Don’t know</strong></td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>10) <strong>Unemployed</strong></td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

o) How many adults live in your home? ____________
2. MORE ABOUT YOU

For each of the questions please tick one choice that best represents your response to each statement.

### During school time, how often do you take part in the following activities supervised by adults?

<table>
<thead>
<tr>
<th></th>
<th>Options</th>
<th>Not at all</th>
<th>Less than once a month</th>
<th>Once or twice a month</th>
<th>Once a week</th>
<th>More than once a week</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Sports, e.g. football, karate, local gym</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>Arts and music</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>Religious activities, e.g. attending church or temple</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d)</td>
<td>Youth centres/clubs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e)</td>
<td>Uniformed activities, e.g. cadets, scouts, guides</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### During school time, how often do you take part in the following activities that are **not** supervised by adults?

<table>
<thead>
<tr>
<th></th>
<th>Options</th>
<th>Not at all</th>
<th>Less than once a month</th>
<th>Once or twice a month</th>
<th>Once a week</th>
<th>More than once a week</th>
</tr>
</thead>
<tbody>
<tr>
<td>f)</td>
<td>Sports, e.g. football</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g)</td>
<td>Arts and music</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h)</td>
<td>Youth centres/clubs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i)</td>
<td>Computers, e.g. MSN, Facebook</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j)</td>
<td>Activities on your own, e.g. reading, writing, pets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How often do you take part in the following physics activities?

<table>
<thead>
<tr>
<th></th>
<th>Options</th>
<th>Not at all</th>
<th>Less than once a month</th>
<th>Once or twice a month</th>
<th>Once a week</th>
<th>More than once a week</th>
</tr>
</thead>
<tbody>
<tr>
<td>k)</td>
<td>Physics clubs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l)</td>
<td>Physics Master classes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m)</td>
<td>Physics competitions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n)</td>
<td>Physics-related outings with your family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o)</td>
<td>Physics-related outings with your school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. YOUR FUTURE STUDIES

a) I am going to continue with my studies after the age of 16.

If yes then please go straight to question c.

If no, please say why in part b below (then go to section 4):

b) I am NOT going to continue with my studies after the age of 16 because:


c) What are the subjects that you are most likely to take after your GCSEs? Please write them down in order of your preference:

1. _______________ because

2. _______________ because

3. _______________ because

4. _______________ because
### 4. ABOUT STUDYING PHYSICS

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Slightly Agree</th>
<th>Slightly Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Can't Say</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) I intend to continue to study physics after my GCSEs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) I think physics is a useful subject.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) I think physics is an interesting subject.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) I think physics will help me in the job I want to do in the future.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) My friends are going to study physics after their GCSEs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) I am good at physics.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) My teacher thinks that I should continue with physics beyond my GCSEs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h) My friends think that I should continue with physics after my GCSEs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) I have been advised by someone else that physics is a good subject to study after my GCSEs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. YOUR VIEWS ON PHYSICS

Please tell us what you think science is about:

Please tell us what you think physics is about:

- a) People who are good at physics get well-paid jobs.
- b) Being good at physics impresses people.
- c) Physics teaches you to think logically.
- d) Physics helps you in solving everyday problems.
- e) Physics improves your social skills.
- f) To be good at physics, you need to be creative.
- g) To be good at physics, you need to work hard.
- h) Being good at physics makes you popular.
- i) Physics is interesting.
- j) Physics is important in making new discoveries.
- k) Those who are good at physics are clever.
- l) These days, everybody needs to know some physics.
- m) In physics, it is interesting to find out about the laws that explain different phenomena.
- n) There is only one right way to solve any physics problem.
- x) Can you think of any experiences, such as a book you read, a film you saw, a place you visited or a person you met or know, that may have changed the way you view physics? If yes, please explain:
6. YOUR PHYSICS LESSONS

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Slightly Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>In my physics lessons, my teacher explains how a physics idea can be applied to a number of different situations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>In my physics lessons, I have the opportunity to discuss my ideas about physics.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d)</td>
<td>I do well in physics tests.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e)</td>
<td>I enjoy my physics lessons.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f)</td>
<td>I can see the relevance of physics lessons.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g)</td>
<td>I find it difficult to apply most physics concepts to everyday problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h)</td>
<td>When I am doing physics, I always know what I am doing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i)</td>
<td>When I am doing physics, I am learning new skills.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j)</td>
<td>When I am doing physics, I am bored.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k)</td>
<td>When I am doing physics, I pay attention.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l)</td>
<td>When I am doing physics, I get upset.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m)</td>
<td>When I am doing physics, I daydream.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n)</td>
<td>I like my physics teacher.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o)</td>
<td>In my physics lessons, we are given the opportunity to do an investigation to test our own ideas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p)</td>
<td>I look forward to spending time in the laboratory doing practical investigations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

x) Thinking about your physics lessons, how do you feel you compare with the others in your group?

<table>
<thead>
<tr>
<th></th>
<th>Near top</th>
<th>A bit above average</th>
<th>Average</th>
<th>A bit below average</th>
<th>Near bottom</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

© 2008, Institute of Education, University of London

Funded by The Economic and Social Research Council
7. YOUR PHYSICS TEACHER

a) My physics teacher has high expectations of what the students can learn.

b) My physics teacher believes that all students can learn physics.

c) My physics teacher wants us to really understand physics.

d) My physics teacher sets us homework.

e) My physics teacher believes that mistakes are OK as long as we are learning.

f) My physics teacher is interested in me as a person.

g) My physics teacher seems to like all the students.

h) My physics teacher is interested in what the students think.

i) My physics teacher only cares about students who get good marks in physics.

j) My physics teacher lets us get away with not doing our homework.

k) My physics teacher treats all students the same regardless of their physics ability.

l) My physics teacher is good at explaining physics.

m) My physics teacher marks and returns homework quickly.

8. HELP WITH PHYSICS

a) I need help with physics

b) I do extra physics at home (i.e. work not set by teachers).

c) I think ICT is very useful in helping me learn physics.

d) I use physics programmes on my computer to help me with my physics, e.g. podcasts, BBC Bite size, games etc.

e) I use online groups to help me learn physics.

f) Do any of these people ever help you with your physics work:

   i) Someone in my family

   ii) My friend(s)

   iii) A private tutor

   iv) My physics teacher

   v) Someone else not listed above
9. MORE ABOUT YOU

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Slightly Agree</th>
<th>Slightly Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) I enjoy strategy games (e.g. Chess, battleships, Sudoku)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) I like to read (e.g. interesting books or magazines)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) I am fascinated by how machines work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) I find it difficult to read and understand maps</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) I have organised collections (e.g. music files, photos, Pokemon cards)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) I think memorising dates is important in learning about history</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) What I like about learning a foreign language is the way I can learn the grammar by following a pattern.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h) I use my mobile to access the internet for information and/or email</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) I like to interact with people online</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j) I upload digital pictures and videos on to internet sites such as Facebook, Flickr, Youtube or Bebo.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k) I like to find the reasons for things</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l) I like to solve problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m) I watch science documentaries on television and/or read about science</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. YOUR SCHOOL

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Slightly Agree</th>
<th>Slightly Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) It is important for me to know how well I am doing at school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) I prefer school tasks that really make me think.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) I like work that I learn from, even if I make a lot of mistakes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) This school will help me be successful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Adults in this school seem to listen to students’ concerns.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) I can be myself at this school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) I feel like I belong at this school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h) I am comfortable talking to teachers about problems in this school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Students of all backgrounds are respected at my school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11. YOUR FAMILY’S VIEWS

a) My parents/carers understand me.

b) I get along well with my parents/carers.

c) I prefer not to talk to my parents/carers about issues that concern me.

d) My parents/carers are disappointed with what I do.

e) Someone in my family:
   i) wants me to work hard and try to the best of my ability.
   ii) wants me to be successful in the subjects that I am interested in.
   iii) wants me to do well in order to a good job.
   iv) wants me to be successful at school in physics.
   v) wants me to be the best in my class in physics.
   vi) wants me to talk to them about my physics work.
   vii) thinks that you have to be born with physics talent to do well at it.
   viii) thinks that I should continue with physics after my GCSEs.
   ix) thinks that anyone can do physics if they try hard enough.

f) If my general standard of physics work slipped, my family would:
   i) take away privileges or ground me.
   ii) threaten to punish me.

12. OTHER PEOPLE AND YOU

a) I feel comfortable around people.

b) I don’t like to draw attention to myself.

c) I start conversations easily.

d) I am quiet around strangers.

e) I don’t mind being the centre of attention.

f) I like to keep in the background.

g) I talk to a lot of different people at parties.

h) I like to see the whole class do well on a test.
i) I try not to speak unkindly of others.

j) Teamwork is really more important than who wins.

k) I don’t trust very many people.

l) I want to be successful, even if it’s at the expense of others.

m) A group slows me down.

n) I like to help others.

o) It is important to treat others with kindness.

p) I do not give anyone a second chance.

13. YOUR EVERYDAY LIFE

a) I like to think up new ideas.

b) I am interested in how others see the world.

c) How many friends I have depends on how nice a person I am.

d) When I make plans, I am almost certain to make them work.

e) When I get what I want, it’s usually because I worked hard for it.

f) I can pretty much determine what will happen in my life.

g) I am sure of myself.

h) I am often depressed.

i) I get upset very easily.

j) I am a calm person.

k) I am usually relaxed.

l) I worry about a lot of things.

m) I am a nervous person.
14. PHYSICS TASKS
These tasks have nothing to do with your school marks and your answers will not be seen by your teachers or anyone else at your school. We simply would like to compare your answers to these task items with your attitudes to physics.

E1. ELECTRICITY 1
In this circuit below, the reading on ammeter $A_1$ is 0.4 amps.

What reading you would expect to see ….

(a) .. on ammeter $A_2$?  
Put a cross $\times$ in ONE box

- More than 0.4A
- Exactly 0.4A
- Less than 0.4A, but not zero
- Zero

(b) .. on ammeter $A_3$?  
Put a cross $\times$ in ONE box

- More than 0.4A
- Exactly 0.4A
- Less than 0.4A, but not zero
- Zero

(c) .. on ammeter $A_4$?  
Put a cross $\times$ in ONE box

- More than 0.4A
- Exactly 0.4A
- Less than 0.4A, but not zero
- Zero

(d) Put a cross $\times$ in ONE box below to explain your reason for choosing these answers.

- The current is the same all round the circuit.
- Each bulb uses up some of the current, leaving less for the next one.
- The first bulb uses up all of the current.
- The current is large close to the battery, and smaller further away.
- The reading is biggest where the currents from the two ends of the battery meet.

(e) How confident are you that your answers to question E1 are correct?

- Very confident
- Fairly confident
- Not confident
- Just guessing
E2. ELECTRICITY 2

A bulb is connected to a battery.

The bulb is lit.

(a) Which of the following best describes the electric current in this circuit? *Put a cross X in ONE box only.*

- [ ] There is an electric current through one wire to the bulb. It is **all** used up in the bulb. So there is **no current** in the other wire.

- [ ] There is an electric current through one wire to the bulb. **Some** of it is used up in the bulb. So there is a **smaller current** in the other wire.

- [ ] There is an electric current through one wire to the bulb. It passes through the bulb and back to the battery. The current in the other wire is **the same size**.

- [ ] There are **two** electric currents from the battery to the bulb. They **meet** at the bulb and this is what makes it light.

(b) How confident are you that your answer to part (a) is correct?

- Very confident [ ]
- Fairly confident [ ]
- Not confident [ ]
- Just guessing [ ]
E3. How much do you agree with the following statements?

I find doing ‘electricity’ problems:

- a) Enjoyable
- b) Easy
- c) Interesting

F1. FORCES 1

Kim throws a tennis ball straight up into the air. It goes up and comes back down into her hand.

Think about the moment when the ball is at A, on the way up to its highest point.

(a) How would you describe the motion of the ball at this instant?

Put a cross [ ] in ONE box only

- It is getting faster.
- It is moving at a steady speed.
- It is slowing down.

(b) Which of the following diagrams best shows the vertical forces on the ball when it is at point A on the way up?

(The length of the arrow indicates the size of each force.)

Put a cross [ ] in ONE box only
(c) Which of the following best describes the forces acting on the ball when it is at point A on the way up?

*Put a cross \( \times \) in ONE box only*

- The only force acting on the ball is the upward force of the throw.
- The only force acting on the ball is the downward force of gravity.
- The forces acting on the ball are the force of gravity, and the air resistance.
- The forces acting on the ball are the force of gravity, the air resistance, and the force of the throw.
- There are no forces acting on the ball.

(d) Which of the following diagrams best shows the total force acting on the ball when it is at point A on the way up?

*Put a cross \( \times \) in ONE box only*

(e) How confident are you that your answers to this question (F1) are correct?

Very confident ☐  Fairly confident ☐  Not confident ☐  Just guessing ☐
F2. FORCES 2

Kim throws a tennis ball straight up into the air for a short distance and catches it when it comes down again.

(a) In the diagrams below, the ball is on the way up. Which diagram best shows the total force on the ball? Put a circle round one letter (A, B, or C) to show your answer.

(b) In the diagrams below, the ball is right at the top of its flight. Which diagram best shows the total force on the ball? Put a circle round one letter (D, E or F) to show your answer.

(c) In the diagrams below, the ball is on the way down. Which diagram best shows the total force on the ball? Put a circle round one letter (G, H or I) to show your answer.
(d) Please explain your answers in the space below:

(e) How confident are you that your answers to this question (F2) are correct?
   Very confident □  Fairly confident □  Not confident □  Just guessing □

F3. How much do you agree with the following statements?

I find doing ‘forces’ problems:
   a) Enjoyable
   b) Easy
   c) Interesting

Please note the time that you finished this questionnaire:

Thank You