

Y11 Discussion Session – Dimensions

(All times approximate)

- 00:00 – 00:05 **Introduction and overview of project aims**
Students introduction
- 00:05 – 00:15 **Rules for dialogue:**
Ask students for suggestions and agree ground rules for respectful debate
- 00:15 – 00:20 **Introduction activity: How would you measure the age of the sun?**
Couple of minutes thinking time in pairs, then discuss benefits and issues with each idea
- 00:20 – 00:40 **Main discussion: What are some of the most fundamental units in Physics?**
The idea here is to discuss which of the units they are familiar with can be broken down into more fundamental units (mass, length, time, etc.), and to introduce the idea of dimensional analysis using the units they have agreed on. If time allows, follow with an open-ended discussion around a physical definition for the direction of time.
- 00:40 – 00:50 **Student’s Experiences:**
A few questions on students experiences of dialogue in the classroom, in Physics and other subjects, and their thoughts on it.
- 00:50 – Finish **Physics and HE Q&A:**
Any questions the students might have about university, studying Physics, Cambridge, etc.

Questionnaire

Y11 Discussion Session

Many thanks for taking part in this project, I hope it has been interesting for you. Please let me know at jbb48@cam.ac.uk if you have any questions.

The data you enter here will only be viewed by Jacob Butler, used only as part of the Transforming Practice course, and will be anonymised before being used in the project report (so you will not be identifiable).

Q24 About You

Q2 Name:

Q3 What is your ethnic group?

Please choose one option that best describes your ethnic group or background

English/Welsh/Scottish/Northern Irish/British (1)

Irish (2)

Gypsy or Irish Traveller (3)

Any other White background, please describe (4)

White and Black Caribbean (5)

White and Black African (6)

White and Asian (7)

Any other Mixed/Multiple ethnic background, please describe (8)

Asian/Asian British (9)

Indian (10)

Pakistani (11)

Bangladeshi (12)

Chinese (13)

Any other Asian background, please describe (14)

African (15)

Caribbean (16)

Any other Black/African/Caribbean background, please describe (17)

Arab (18)

Any other ethnic group, please describe (19)

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Q4 Future Plans

Q5 What are your plans after you leave school?

- A Levels (1)
- Apprenticeship (4)
- BTEC/HNC/HND (2)
- NVQ (3)
- Other (5) _____

Display This Question:

If Q5 = A Levels

Q6 Which subjects are you planning to study?

Sciences, including Maths (please specify) (1)

Humanities (please specify) (2)

Other (please specify) (3)

Display This Question:

If Q5 != A Levels

Q7 What course/role are you planning to take?

Q8 Experiences of Physics

Q9 What is your predicted grade for Physics at the moment? (an estimate is fine)

Q10 Please rate how you feel about each of the following characteristics from 0.5 (low) to 5 (high)

Your confidence in Physics (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your knowledge of Physics (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your enjoyment of Physics (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display This Question:

If Q10 [Your enjoyment of Physics] <= 2

Q11 What do you most dislike about your Physics lessons and what could be done to improve them for you?

Q12 Please rate each of the following statements according to your experience in Physics lessons.

	Strongly agree (1)	Somewhat agree (2)	Neither agree nor disagree (3)	Somewhat disagree (4)	Strongly disagree (5)
We often get to discuss ideas and concepts (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often get to express my ideas (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to challenge ideas (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have many opportunities to ask questions (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

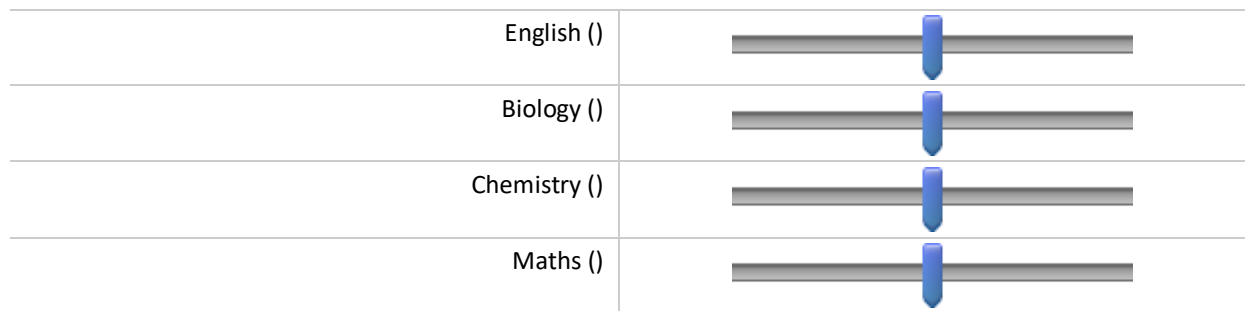
Q13 Which subject has given you the most opportunity to discuss your ideas and challenge others' ideas? (Including the teachers'!)

Q14 What could Physics lessons learn from the way this subject is taught?

Q15 How does your ability to discuss and question ideas in Physics compare to other subjects?

Physics is worse Physics is the same Physics is better

0 50 100



Page Break

Q16 Discussion Session

Q17 How similar was the Discussion Session to your usual Physics lessons?

- Identical (1)
 - Similar (2)
 - Different (3)
 - Completely Different (4)
-

Display This Question:

If Q17 != Identical

Q18 Which approach do you prefer and why?

Display This Question:

If Q17 = Identical

Q19 What do you think about these discussions?

Q25 Please rate how you felt about each of the following characteristics during the Discussion Session, from 0.5 (low) to 5 (high)

Your confidence in speaking (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your confidence in challenging others' ideas (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your knowledge of the topics covered (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your enjoyment of the session (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q20 Please rate each of the following factors according to your experience in the Discussion Session.

	Not enough	The right amount	Too much
	0	50	100
Discussion about topics and ideas ()			
Chance to express your ideas ()			
Chances to challenge ideas ()			
Chances to ask questions ()			

Q21 What did you like **most** about the Discussion Session?



Q22 What did you like **least** about the Discussion Session?



Q23 Please add any other points or thoughts related to the Discussion Session you wish to make.

End of Block: Default Question Block
