

Doc Walding's "Have no fear" physics videos

Standard Model & Particle Interactions

Dr Richard Walding presents a lecture on "The Standard Model and Quarks" for his Year 12 Physics students. This lecture covers material from his "New Century Physics for Queensland" Unit 3 & 4 textbook, Section 13.1 (A) page 352-356. Published by Oxford University, ISBN 9190313647780. It is a part of his "Have no Fear" Physics videos and is classed as suitable for children. Oxford provides videos as part of the published obook resource, however, OUP has no interest in, or responsibility for, the videos below.

Playlist: <https://www.youtube.com/watch?v=NdUoNbl3bFw&list=PLDSD-d0kihs5f2CHO6UL29eWp3v5WzHym>

Title	Time	Reference	Video link
13.1A - The Standard Model and Quarks	26:59	Section 13.1 (A) page 352-356	https://youtu.be/NdUoNbl3bFw
13.1B - The Standard Model and Leptons	15:05	Section 13.1 (B) page 356-357	https://youtu.be/IX6NVe7AwkM
13.2 – Fundamental Forces and Gauge Bosons	28:26	Section 13.2 page 358-363	https://youtu.be/D8NqoigPfq8
14.1A – Boson and Lepton Numbers	16:05	Section 14.1 (A) page 374-377	https://youtu.be/VosxKyRuiEA
14.1B – Conservation of Boson and Lepton Numbers	14:39	Section 14.1 (B) page 379-340	https://youtu.be/-bfAUESQoyA
14.2 – Feynman Diagrams	55:03	Section 14.2 page 381-387.	https://youtu.be/TMAx_l2-rcM
14.3 – The Significance of Symmetry	28:13	Section 14.3 page 388-393	https://youtu.be/FAiVC8G53Jw

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