AQA Spec ref.	Unit	Topic	Number of Questions	GCSE Book Page number	Number of Hexagons	Link	What type of question will the student face	What will the student achieve by completing this board	What skills will the student need to know to successfully complete each board
Maths	Maths	Standard Form	38	5-6	4	https://isaacphysics.org/board/51aafe1e-7ff5-4fc1-83a3-c1c24eac870f	Hexagons 2.2-2.5 are multiple choice questions and hexagon 2.6 requires a numeric answer.	Improve students understanding and use of Standard Form. Involves converting to and from standard form.	Aimed at all students, it will require students to handle large and small numbers.
Maths	Maths	Rearranging Equations	16	8	3	https://isaacphysics.org/board/6cfaab54-a011-4c13-8a04-2535d122a080	All questions require the formula builder. All hexagons are 'drill' style questions.	Students required to manipulate commonly used GCSE equations including E=mgh, transformer rule and refraction index formulae	Need to know the basic rules with regards to rearrangement including rooting and squaring numbers.
Maths	Maths	Converting Units	29	2	3	https://isaacphysics.org/board/3252c94f-0972-4308-858e-c1d71ac9d83f	Hexagon 1.1 is multiple choice. Hexagons 1.2+3 require students to calculate their answers.	Students to develop a solid understanding and confidence of converting between units.	Questions are all phrased simply e.g. convert 240cm to metres.
Maths	Maths	Converting Units (Time)	12	3	3	https://isaacphysics.org/board/d07f7903-1025-4628-b520-5527ae59effd	All questions require students to input an answer.	Students will develop confidence converting from a range of times into seconds. E.g. 4min to seconds. Also, how many seconds are in a minute, hour, day and year.	Hexagon 1.11 and 1.12 will be straightforward for most. Students will need an understanding of standard form and an understanding of prefixes.
Maths	Maths	Proportionality	6	17-19	3	https://isaacphysics.org/board/5b77ff4d-fc58-44b8-af41-2f82f0bfbbcb	Hexagon 7.1 'drill' questions. Hexagon 7.9 and 7.10 are worded questions.	Students will develop confidence of using and understanding such words as inversely proportional.	Depending on the students' confidence with maths and proportionality all students may struggle initially with the concept. Hexagon 7.9 and 7.10 will stretch most students. Hexagon 7.1 to act as a confidence builder.
Maths	Maths	Straight Line Graphs	8	14-15	2	https://isaacphysics.org/board/d70859b5-85ba-4921-a83f-44e18c970435	Assess basic understanding of ability to read and interpret graphs	To develop basic graph skills especially calculating gradients.	This should be a relatively straightforward task for all students. Challenges may come from the requirement to calculate the gradient at multiple places on one graph.
Maths	Maths	Converting Units (Hard)	16	3	3	https://isaacphysics.org/board/31506973-6ae6-4bad-ad88-db4e805fea8b	All questions are drill style questions.	This is often beyond the scope of most GCSE exams (though within current specifications). Students will feel comfortable moving between units as well as recalling on the ability to use standard form or give answers in standard form.	Students may find these challenging.
P1	Energy	Specific Heat Capacity (formula practice)	12	92	1	https://isaacphysics.org/board/de24990b-b8cf-4523-b08a-82b72edda6ad	Pure drill practice questions.	Develop the students' ability and confidence at using the Thermal Energy Transfer equation (often referred to as the Specific Heat Capacity formula). Also will develop ability to convert between units and standard form.	Students will need to be able to rearrange an equation and convert between grams/kilograms as well as joules/kilojoules.
P1	Energy	Specific Heat Capacity (hard)	10	92-94	8	https://isaacphysics.org/board/b8406b94-c749-4bac-9220-e7a6850357c5	10 worded problem questions that require the students to apply their ability of using the equation.	All the questions are more exam style questions. The aim is to develop the students' ability to extract information from the question and apply the formula correctly. Questions will also require students to find the change in temperature.	Students will need to be able to rearrange the formula as well as density and power formula. Also, students will need to apply a multi formula approach.
P1	Energy	Work Done and Power	10	101	2	https://isaacphysics.org/board/75391abb-ea68-4a69-854b-b812b06611cd	Hexagon 33.1 pure drill formulae practice. Hexagon 33.2 requires students to comprehend a written question.	Students to develop confidence using and rearranging the work done and power equations. As well as application of these formulae to a worded problem.	Students will be need to be able to convert between units e.g. cm→m as well as rearrange both work done and power formulae.

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P1	Energy	Work Done, GPE, Power (challenging)	10	102-103	6	https://isaacphysics.org/board/d7826796-4485-418f-8304-5c5e3151e257	Each hexagon is a worded problem.	Students will be able to do GPE, Work Done, and Power calculations confidently.	Rearrangement, conversion between mass and prefixes.
P1	Energy	GPE and Kinetic Energy	10	105	5	https://isaacphysics.org/board/3097c6b7-2e87-4f7e-a72f-695f243c7ed6	Simple worded problems	Students will link GPE and Kinetic Energy and understand how changing a variable will affect another.	Rearrangement of formula, proportionality, conversion of units.
P1	Energy	Kinetic Energy (Challenging)	3	106	3	https://isaacphysics.org/board/21e16279-59bc-4baa-8ba5-b1affbfbf4c1	More lengthy worded problems, as well as using more than one step to solve problems.	Although stated in the question, students will develop their approach with using more than one equation to solve a problem – which is often the 4-6-mark question.	Understanding of prefixes and the kinetic energy formula, ability to express answers as percentages.
P1	Energy	Efficiency Calculations	11	108	4	https://isaacphysics.org/board/1dd7b391-6009-4f3a-8d7c-baa97088a515	2 worded problems (Hexagon 35.1 and 35.2) and 8 drill practice questions (Hexagon 35.4).	Improve their ability at rearranging the efficiency formula. Also, using more than one formula to solve problems.	Knowledge of work done formulae, basic ability to rearrange formulae.
P1	Energy	Efficiency Calculations (Challenging)	9	108-109	4	https://isaacphysics.org/board/394d6fa8-5654-4838-a73a-4d4f77ef609b	Worded questions are phrased in a way that may challenge most students to understand how to go about solving the problem.	Students will increase their ability to comprehend exam style questions.	Conversion of percentages back into decimals, conversion of units and basic use of efficiency calculation.
P1	Energy	Power and Energy in the Human Body (Challenging)	10	111-112	4	https://isaacphysics.org/board/0ce6b4d5-7e62-427b-8ded-5e3d2b8e234c	Worded problems that are structured in the beginning but do rise in difficulty.	Students will develop their ability to pick out key information and use multiples of basic energy e.g. if 1 brick requires 10J of work, calculate total work to move 100 bricks.	Use of work done, power formula. Rearrangement and substitution of both.
P1	Energy	Elastic Potential Energy	10	113-113	2	https://isaacphysics.org/board/e2f00cfe-1b6a-4cd8-8bae-61813737007f	Straightforward worded problems.	Improve confidence and ability when calculating the energy stored in an elastic system.	Conversion between cm & mm→m, Rearrangement of elastic potential energy formula.
P2	Electricity	Charge and Current	11	67 - 68	3	https://isaacphysics.org/board/628400e0-7f6f-4dc8-9799-c3dd89aa2f34	Hexagon 22.4 is a straightforward drill practice table to complete. Hexagon 22.6 and 22.5 are worded questions.	Using Q = It and improving students understanding of the term charge flow.	Conversion between time (minutes → seconds), ability to understand standard form, as well as rearrangement of Q=It.
P2	Electricity	Charge and Current (Application Questions)	7	68	7	https://isaacphysics.org/board/02e54703-9c65-41d7-ae09-07542d8af97a	Worded exam style questions. (22.16 and 22.17 are online only)	Using Q = It, applied in a variety of scenarios.	Conversion between time (minutes → seconds), ability to understand standard form, as well as rearrangement of Q=It.
P2	Electricity	Voltage and Current in series and parallel	9	70 - 71	5	https://isaacphysics.org/board/004776fc-2ad3-40ec-9047-b889552406d8	Each hexagon corresponds to a circuit diagram. Students are required to input an value.	Most students will be challenged by circuit diagrams and often get confused about the circuit rules. This board will certainly consolidate and assess their understanding.	Understanding of current/voltage circuit rules in series and parallel.
P2	Electricity	Voltage and Current in series and parallel (Hard)	3	72	3	https://isaacphysics.org/board/a9f780cf-ff0f-409f-9eaa-b26d17e76772	Each hexagon is represented by a circuit diagram. Students are required to input an value.	More complex circuit diagrams, extending and deepening student understanding of circuit rules.	Understanding of current/voltage circuit rules in series and parallel.
P2	Electricity	Resistance V=IR	11	73 - 74	6	https://isaacphysics.org/board/82da122c-b7ef-49ae-89f8-e3131c6f5fab	Hexagon 24.1 is a straightforward drill style question. Hexagons 24.2 to 24.6 are worded style exam questions.	Improve use of the basic V=IR formula as well as extension when there are non-identical components in a circuit. Often this is above most GCSE Exam boards.	Lots of prefix use, rearrangement of V=IR, and knowledge of circuit rules in a series and parallel circuit.

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P2	Electricity	Characteristics and Graphs	7	77 - 78	5	https://isaacphysics.org/board/a3803f51-ad3e-4832-92f1-b069f8ac7db5	Each hexagon requires students to read and interpret graphs.	Often an area students struggle with, interpreting graphs. Students will improve their ability to recall I-V graphs as well as ability to calculate gradients and interpret graphs.	Ohmic conductors, knowledge of I-V graphs and ability to calculate R from these graphs.
P2	Electricity	Power Formula Practice	24	79 - 80	2	https://isaacphysics.org/board/91625808-71b3-431c-a213-980cc5d42447	Both hexagons are straightforward drill style questions.	Use of both formula P=IV and P=W/t. Students will develop the link between both formulae and appreciate when to use which one.	Understanding of P=W/t and P=IV. Ability to rearrange both, a range of prefixes, convert between units (time), and standard form.
P2	Electricity	Power Calculations (Application)	11	81	7	https://isaacphysics.org/board/16254e2c-96c9-4dff-a200-6b09065cb76d	Simple worded style exam questions.	Application of P=IV and P=W/t formula to worded problems.	Rearrangement of both formulae as well as ability to convert between units (time); knowledge of Q=It.
P2	Electricity	Power and Resistance (Multi Step Approach)	18	83	1	https://isaacphysics.org/board/f0239629-a2ba-4e6c-9ddd-84466b9dcb41	Straightforward drill practice.	Practice using P=IV and V=IR.	Students will need to be able to rearrange both formulae, as well as understand prefixes.
P2	Electricity	Power Wasted Multistep Approach	7	83 - 84	5	https://isaacphysics.org/board/41caf3e5-f34e-45c8-acc7-c1846167c8ff	Worded style exam questions that vary in length.	Applying V=IR and often require many steps to complete the board, although the questions are broken down into parts a, b, c etc.	Rearrangement of V=IR and P=IV. Knowledge and understanding of prefixes. Specialist terms such as voltage dropped.
P2	Electricity	Power Wasted Multistep Approach (hard)	5	84	3	https://isaacphysics.org/board/115f8761-3792-431c-9066-fe4983bfd4b5	Worded exam questions. Hexagon 27.8 and 27.9 are fairly simple to read. Hexagon 27.10 is a longer written question.	All questions require students to calculate another variable before finding the final answer.	High comprehension skills and ability to pick out key information. Confidence applying V=IR and P=IV.
P3	Particle Model	Boyle's Law	10	173 - 174	4	https://isaacphysics.org/board/d04d7c72-179b-4715-ac4d-2ab0d174f280	Hexagon 59.1 is a unit conversion, Hexagon 59.2 is a large worded question and 59.3 is a simple order the statements question.	Often overlooked by students, unit conversion will be developed. Hexagon 59.3 has been a 4 mark question before in exams, although students could simply guess this does assess their understanding of why gas exerts pressure on surfaces.	Knowledge and qualitative understanding of pressure and Boyle's Law (including some unit conversions).
P3	Particle Model	Specific Heat Capacity (formula practice) (Same as P1)	12	92	1	https://isaacphysics.org/board/de24990b-b8cf-4523-b08a-82b72edda6ad	Pure drill practice questions.	Develop the students' ability and confidence at using the Thermal Energy Transfer equation (often referred to as the Specific Heat Capacity formula). Also will develop ability to convert between units and standard form.	Students will need to be able to rearrange an equation and convert between grams/kilograms as well as joules/kilojoules.
P3	Particle Model	Specific Heat Capacity (hard) (Same as P1)	10	92-94	8	https://isaacphysics.org/board/b8406b94-c749-4bac-9220-e7a6850357c5	10 worded problem questions that require the students to apply their ability of using the equation.	All the questions are more exam style questions. The aim is to develop the students' ability to extract information from the question and apply the formula correctly. Questions will also require students to find the change in temperature.	Students will need to be able to rearrange the formula as well as density and power formula. Also, students will need to apply a multi formula approach.
P3	Particle Model	Latent Heat	10	96 - 97	5	https://isaacphysics.org/board/a32ae044-f7fb-4697-ba92-b5cd6fa7ac67	Hexagon 31.1 is a straightforward drill practice of Q=mL. Hexagons 31.2-9 are exam style word questions.	Practice and use of Q=mL formula as well as application to a range of scenarios. Use of multi formula approach is also required. Hexagon 31.9 should stretch most students.	Ability to use, rearrange Q=mL and E=Pt.
P4	Atomic Structure	Number of Proton, Neutrons, Electrons	19	155	3	https://isaacphysics.org/board/0a57f54e-0794-40cc-8a19-1804c2582dee	Very simple drill questions accessible to foundation tier students.	Assess understanding of basic atomic structure.	Understanding of chemical symbol, proton number and atomic mass number, isotopes.
P4	Atomic Structure	Nuclear Equations	5	157	5	https://isaacphysics.org/board/45de4c10-e461-45d8-820b-cf9ab0b9c9be	Very simple drill questions or accessible to foundation tier students.	Ensure students are comfortable with writing nuclear equations. Students are told whether it is alpha or beta decay.	Knowledge of writing nuclear equations and the different types of decay. **NB beta$^+$** is required; although not in any GCSE specs.

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P4	Atomic Structure	Half Life	6	158 - 159	3	https://isaacphysics.org/board/5ffb7f22-e5dc-460a-8d0f-6250c91d7036	Simple worded style questions that require students to calculate half life, activity and number of nuclei remaining.	Will stretch most students' understanding of calculating half life as well as going beyond most specifications when requiring to calculate number of nuclei remaining in a sample.	Half life definition and half life formula.
P4	Atomic Structure	Fission the Process	5	164	5	https://isaacphysics.org/board/3d4780b4-213d-44a7-88ba-d83dc464f565	All hexagons are multiple choice style question. Often required to either pick the correct statement or place them in order.	Qualitatively developing knowledge of nuclear fission.	Basic knowledge of the fission process and a nuclear reactor.
P5	Forces	Spring Constant	10	113	2	https://isaacphysics.org/board/e365da94-1a47-4860-9f4b-ae218e567a02	Straightforward exam based questions. Most students should be able to access the material	Students will improve their application and rearrangement of the sping constant formula.	Application and rearrangement of the spring constant formula, unit conversion.
P5	Forces	Spring Constant and Elastic Potential Energy (Challenging)	6	114 - 115	5	https://isaacphysics.org/board/d28494f8-4dd2-4604-b6f3-796137856827	Straightforward exam based questions. Most students should be able to access the material	The nature of some of these questions will test students' understanding of the topic and their ability to apply the spring constant and elastic potential energy formulae. Whilst not on most specifications, springs in parallel will challenge all students.	Application and rearrangement of the spring constant and elastic potential energy formulae.
P5	Forces	Displacement and Distance	10	23 - 24	5	https://isaacphysics.org/board/0d640672-cf15-4e22-99b7-151f17d410ae	Hexagon 9.1-9.2 are simple worded style questions. Hexagon 9.3-9.5 are very wordy questions or complex scenarios for the students.	Students will be challenged deeply on their understanding of displacement and distance. They will also be tested on their ability to draw out their problems; a very handy skill to have.	Good understanding of distance vs displacement, Pythagoras theory or ability to construct scale vector diagrams and trigonometry.
P5	Forces	Resultant Forces	15	34 - 36	1	https://isaacphysics.org/board/0e96abda-4bd8-4049-b0a3-e88a92712e18	State a numerical answer from a diagram.	Fundamental practice of understanding resultant force diagrams.	Basic understanding of resultant force and force diagrams.
P5	Forces	F=ma (worded)	10	**Only Online**	6	https://isaacphysics.org/board/d0c02e60-5a4b-4e67-884b-9553f313f5b0	Mix of simple worded calculations and interpreting diagrams.	Students will enhance their ability to interpret and understand force diagrams as well as using F=ma equation.	Understanding of force diagrams, prefixes, F=ma formula and ability to rearrange equations.
P5	Forces	F=ma (Challenging)	13	36 - 37	5	https://isaacphysics.org/board/c854ba5e-ef66-44e3-870e-f3a9fc3fe061	Simple worded questions. Hexagon 13.10 is a more in-depth worded question with larger numbers.	Applying the F=ma formula to exam style questions, as well as developing confidence using large numbers.	Ability to use and rearrange F=ma, resultant forces.
P5	Forces	Distance and Speed Formula Practice	15	20 - 21	2	https://isaacphysics.org/board/74c521ec-a7a1-4b0b-aab7-45bb183b4ab8	Pure drill practice style questions.	Develop confidence using the speed, distance, time formula.	Basic grasp of the speed-distance, time formula, ability to convert units (time and distance).
P5	Forces	Speed Distance Problems (Challenging)	5	21	5	https://isaacphysics.org/board/e56633bb-5cb7-4e27-90b4-e203102f2e80	A range of worded exam style questions.	Applying the speed, distance time formula to exam style questions.	Speed, distance time formula, ability to convert units (time and distance).
P5	Forces	Displacement Time Graphs	14	25 - 26	3	https://isaacphysics.org/board/a6534ea9-a717-4bd3-97ec-0f42df7c1bb2	Simple worded style questions for interpreting graphs.	An opportunity to develop an area students struggle with, interpreting s-t and v-t graphs. Develop confidence calculating the gradient.	Calculating gradients (positive and negative), interpreting v-t graphs, s-t graphs.
P5	Forces	Velocity Time Graphs	21	31 - 33	3	https://isaacphysics.org/board/4e0aa11b-11ed-44c6-86ee-450b0080baa7	Simple worded questions to calculate area under and gradients from graphs.	From fairly routine v-t graphs to more complex graphs, including positive and negative displacements and accelerations, as well as graphs with minimal information.	Ability to calculate the area under a graph, v-t graphs, calculate the gradient of graphs.
P5	Forces	Acceleration a=Δv/t Practice	16	28	1	https://isaacphysics.org/board/2221bae4-3f7b-449d-afcd-3064d4bdc507	Pure drill style questions.	Lots of practice using the equation a=Δv/t, as well as confidence rearranging this equation.	Students will need to know a=Δv/t, ability to rearrange equations.

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P5	Forces	Acceleration Δv/t worded problems	11	28 - 29	6	https://isaacphysics.org/board/f14f182c-56c5-408b-aa0d-61256c64ee4c	Hexagons 11.2 – 11.6 are worded style questions. Hexagon 11.7 is a drill style practice of a=Δv/t	The context may prove challenging for students to understand and thus develop their ability to comprehend such scenarios. Along with enhancing their ability to construct free body diagrams and deal with concepts such as negative acceleration.	Ability to construct free body diagrams, a=Δv/t , displacement, negative and positive values.
P5	Forces	Terminal Velocity Understanding	12	38 - 39	5	https://isaacphysics.org/board/a1cd3024-f85a-4b26-aaa5-72879d3af47f	Pretty well scaffolded worded problems. Will act as a confidence builder for most students.	This board will assess students' depth of understanding of forces and Newton's Second Law. The scenarios appear relatively straightforward but students will require a good ability at visualising the problems or ideally constructing a free body diagram. Qualitative and quantitative understanding of terminal velocity will be developed.	Understanding of terminal velocity, Newton's Laws (1st and 2nd), W=mg, and resultant forces.
P5	Forces	Terminal Velocity Math Problem	6	40	2	https://isaacphysics.org/board/7e8b28d2-58cf-4689-ba2f-e974bf010192	More challenging worded style problems.	Stretching pupils' mathematical ability when applied to terminal velocity. Outside of the development of understanding of terminal velocity, the problems are worded in a more challenging way e.g "the resistive force is proportional to the square of the speed". This subtle change will stretch almost all students.	Understanding of specialist terms, ability to apply and rearrange F=ma, understanding of proportional and factors, percentages, deriving equations.
P5	Forces	Stopping Distances	12	42 - 43	5	https://isaacphysics.org/board/5cbb6f20-d0ee-45f8-a0b1-d0b1f2fd4e70	Simple worded style questions on braking distances.	Students will improve their understanding of stopping distance in a wider range of scenarios and difficulty than often faced on most exam boards. Applying a range of thinking/braking distances (all given in each question) often proves difficult for students.	Knowledge and understanding of what makes up stopping distances. Converting units (mph → m/s).
P5	Forces	Momentum Formula Practice	13	55 - 56	2	https://isaacphysics.org/board/5cb97b2c-5b3b-4e45-aa05-8b761838353b	Hexagon 19.1 is a pure drill style question. Hexagon 19.2 are simple worded calculate problems.	Students will develop confidence using the basic momentum formula as well as develop their understanding of conservation of momentum. Hexagon 19.2 is a more challenging problem and will stretch most higher tier students.	Ability to use and rearrange momentum formula, good understanding of conservation of momentum and ability to rearrange this equation.
P5	Forces	Momentum before and after formula practice	20	56	1	https://isaacphysics.org/board/a3c1d256-a056-43d4-8802-524774898809	Pure drill practice using the concept of P_{after}-P_{before}=Ft.	Although basic in style of demand (filling in a table) this should challenge most students understanding of P_{after}-P_{before}=Ft	Understanding of P_{after}-P_{before}=Ft and ability to rearrange this.
P5	Forces	Momentum (Challenging)	9	57	6	https://isaacphysics.org/board/cdc2449b-2301-469d-96a2-a3920f2350f4	Worded exam style questions on momentum.	A range of questions assessing and developing students ability at using momentum, change in momentum, impulse. A good board to assess a full understanding of momentum topic.	Ability to apply and rearrange the following formulae: momentum, impulse, P_{after}-P_{before}=Ft. Convert between units (mass, speed), ratios and expressing answers as a ratio.
P5	Forces	Conservation of momentum	10	59	3	https://isaacphysics.org/board/3d1b258b-840c-4a9e-b5d3-b9af00e2fa68	Hexagon 20.1 is straightforward worded momentum calculations. Hexagon 20.2-.3 involve interpreting diagrams.	Develop students' understanding of momentum and conservation of momentum during collisions. Students will be able to interpret collision diagrams and rearrange the formula P_{after}-P_{before}=Ft	Ability to apply and rearrange the momentum formula and P_{after}-P_{before}=Ft
P5	Forces	Impulse worded problems	4	57	3	https://isaacphysics.org/board/9b587dfc-73f8-42ed-ab38-db68b2aa238e	Worded exam style questions	Short section but specifically targeting students' understanding of impulse.	Knowledge and application of impulse calculations.
P5	Forces	Moments Formula Practice	8	45	3	https://isaacphysics.org/board/8ffb4ed1-02fa-47fb-9536-55848c7c5c70	Hexagon 16.1 straightforward drill practice of the moment formulae, Hexagon 16.2-.3 are simple worded questions.	Practice at using the moment formula.	Ability to calculate moments, convert cm to m, rearrange the moment formula.

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P5	Forces	Moments Worded Problems	12	45 - 47	3	https://isaacphysics.org/board/9d967227-25f9-4fd6-9387-0bb9b2498927	Hexagons 16.6 & .8 are worded problems on moments. Hexagon 16.7 uses diagrams, and students are required to interpret and calculate the moment.	All questions apply the moment formula, sometimes with more than one mass at differing distances. Students are also challenged to state the direction the moment will act in.	Interpreting moment problems, ability to use and rearrange the moment formula, convert between units (mass and distance).
P5	Forces	P=F/A Formula Practice	13	48	3	https://isaacphysics.org/board/6e74a887-e128-481f-b4d1-b96984bcd19f	Hexagon 17.1 is a straightforward drill practice of P=F/A. Hexagon 17.2 - .3 are worded exam style questions.	Enhance students' confidence of using the P=F/A formula as well as applying this to a range of scenarios.	Knowledge of P=F/A and ability to rearrange this. Convert units (length and pressure).
P5	Forces	P1 = P2 Formula Practice	10	49	1	https://isaacphysics.org/board/d2f98477-5872-442f-b035-db688870a414	Drill style questions on hydraulic systems in equilibrium.	Build students' confidence with using P_1=P_2. Also, more able students could be challenged through using proportionality as a way to solve most of these questions. Unit conversion of area will prove testing for most students.	Ability to recall and rearrange P_1=P_2 and good understanding of converting units for area.
P5	Forces	Pressure at depth formula practice	10	50 - 51	2	https://isaacphysics.org/board/873033db-5adb-41af-b8b4-988b1f469e2d	Straightforward drill practice. Hexagon 17.7 are worded problems but shouldn't provide too many issues in comprehending what to do.	Basic use of the density equation (Hexagon 17.6) and then developing this to pressure at depth. Students will also build confidence rearranging this.	Ability to rearrange and apply the density and pressure at depth formulae. Conversion of units mass and distance.
P5	Forces	More pressure at depth worded problems	6	51	3	https://isaacphysics.org/board/a06c721d-c50e-4bbb-938f-819740d8c30f	All worded questions assessing pressure at depth and atmospheric pressure. (NB in earlier versions of the GCSE book these questions - 9 to 11 - appear as numbers 8 to 10.)	Students will develop their ability at applying pressure at depth formulae to relatively abstract scenarios. These are challenging.	Pressure at depth formula, conversion between units and prefixes.
P6	Waves	Wave Equation and Time Period Formula Practice	11	117	2	https://isaacphysics.org/board/2b47a10e-23a5-4c2a-8133-4d667ef7fb36	Hexagon 38.1 pure drill practice of the wave equation and f=1/T and T=1/f. Hexagon 38.2 is a simple word style question applying these formulae.	Students will develop confidence using the wave equation and rearranging the equation. Similar to exam questions, Hexagon 38.2-.3 will test students' ability to comprehend questions as well as notice the unit conversion required.	Ability to rearrange; wave equation, f=1/T and T=1/f., conversion of units (distance)
P6	Waves	Frequency and Time Period Calculations	10	117 - 118	8	https://isaacphysics.org/board/73fbda12-1b91-4655-904c-f36ab7e1d973	More demanding exam style worded problems.	Students will improve their confidence using large numbers. Although straightforward in terms of application of the relevant formula, students must have a robust and consistent approach to solving problems. Hexagon 38.9 and 38.10 require multi step approach to be successful.	Ability to rearrange; Wave equation, f=1/T and T=1/f.
P6	Waves	Wave Equation: Worded Problems	10	118 - 119	10	https://isaacphysics.org/board/afba0a3b-b087-45b5-bcf3-661ec239df16	Further wave equation problems. All exam style worded problems.	Further opportunity to develop students' ability to solve worded problems. Many of the questions require conversion of some units. The use of standard form is also another challenging aspect for some students.	Ability to rearrange; Wave equation, f=1/T standard form, conversion of units, prefixes.
P6	Waves	Convex Lenses	16	144	1	https://isaacphysics.org/board/d6996ca8-35c6-4305-b7bd-8369299e6200	A series of multiple-choice questions.	This board will qualitatively deepen students' understanding of lenses and what happens to objects placed at different positions.	Understanding of convex lenses
P6	Waves	Concave Lenses	8	148	1	https://isaacphysics.org/board/0c579e69-1ada-4034-ac8f-4fef8a81865c	A short series of multiple-choice questions.	This board will qualitatively deepen students understanding of lenses and what happens to objects placed at different positions.	Understanding of concave lenses

AQA Spec ref.	Unit	Topic	Number of Questions	GCSE Book Page number	Number of Hexagons	Link	What type of question will the student face	What will the student achieve by completing this board	What skills will the student need to know to successfully complete each board
P6	Waves	S & P Waves	15	136 - 137	5	https://isaacphysics.org/board/4fb167c7-1530-499a-941b-0d8f94503c22	Hexagon 45.1 applies the speed formula to S&P waves. Hexagon 45.3 and 45.4 are both multiple choice style questions.	Quantitatively and qualitatively advance students' understanding the properties of S & P Waves.	Knowledge and understanding of S & P Waves, basic use of the speed distance time formula.
P7	Magnetism and Electromagnetism	E-M Induction and The Generator Effect	15	86 - 87	5	https://isaacphysics.org/board/68aad4ec-fb51-46c4-9030-7bcb8bbc8934	A range of multiple choice and numerical answers.	Will challenge students' understanding of E-M induction and the factors that have an impact on the generator effect. The numerical answer requires little calculation but a good understanding of proportionality and ratios.	Understanding of E-M induction and the generator effect, proportionality, ratios and percentages.
P7	Magnetism and Electromagnetism	Transformers	15	89 - 90	5	https://isaacphysics.org/board/f3ff71ed-97fd-41e5-a36c-92f8190db409	Hexagon 29.1 is a straightforward drill style question. Hexagon 29.2-7 are worded exam style questions.	Initially developing students' ability at using the transformer rule formula, students will be quickly tested on their ability to decide what information is relevant and which is not.	Transformer rule, ratios and portionality.