P.E. Support Pack

Work Sheets

169 p of Work Sheets
Imaginative Tasks for Classwork and Private Study
with Answers and Explanations
Suitable for all GCSE Physical Education Courses

Contents List

INTRODUCTION

In this Support Pack the emphasis is on helping understanding and learning rather than testing for assessment, although of course the sheets can be used in this way.

The worksheets are designed to:

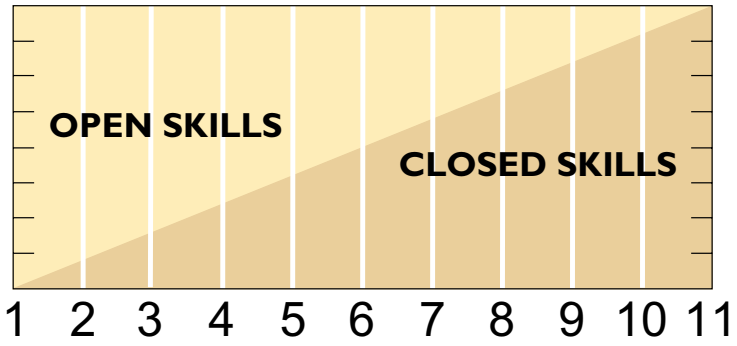
- further stimulate the interest in the subject;
- provide clear, easy to use material for classwork and homework;
- provide extra information;
- reinforce the understanding and learning of material essential for examination purposes.

Questions are formulated in a variety of ways. Some of the questions simply require that facts be matched correctly. In this type of question incorrect 'distractors' are NOT used. The use of only correct information reinforces learning, and avoids the possibility of introducing misunderstanding. Other questions are more open ended to stimulate deeper thought and discussion. Questions are of varying difficulty, some with extension work designed to engage more able students.

The pack also includes a number of activities designed to involve students in the learning process in different ways, including, cut out figures, and a card game.

Name: Class: Date:

Open Skills and Closed Skills are not always totally separated, they can be considered as being at either end of a continuous system or continuum. Between the two ends of the continuum are skills made up of both closed and open elements. The diagram below represents this 'skills continuum'.



Task 1

For each of the activities listed below give a number from the diagram 'graph' above which you think shows the activities best position along the continuum, and fill in the bottom row of the grid provided or on the Master Grid Sheet.

It is quite difficult to judge where some skills should be placed, and sometimes there is no absolutely correct answer. Be prepared to explain your choices.

A Receiving a netball pass.

B Headspring.

C Bowling in rounders.

D Football penalty shot.

E Basketball free shot.

F Running a 400 metre race.

G Running a marathon.

H Putting in golf.

I Orienteering.

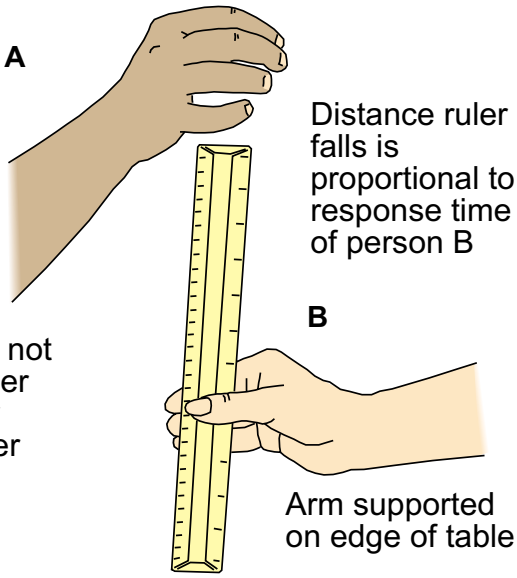
J Synchronised swimming.

A	B	C	D	E	F	G	H	I	J	Score

Work Sheet 18a

Class: Date:

Simple dropped ruler test for speed of reaction.



In the dropped ruler test the distance the ruler drops is proportional to the time passed. To help you convert the distance the ruler fell into actual time, you can use the conversion scale below or, you could make and use the timer opposite, graduated in milliseconds giving a direct reading in time.

Distance fallen by ruler in mm	Reaction Time to nearest ms (0.001s)	Distance fallen by ruler in mm	Reaction Time to nearest ms (0.001s)	Distance fallen by ruler in mm	Reaction Time to nearest ms (0.001s)
0	0	100	143	200	202
5	32	105	146	205	205
10	45	110	150	210	207
15	55	115	153	215	209
20	64	120	156	220	212
25	71	125	160	225	214
30	78	130	163	230	217
35	85	135	166	235	219
40	90	140	169	240	221
45	96	145	172	245	224
50	101	150	175	250	226
55	106	155	178	255	228
60	111	160	181	260	230
65	115	165	184	265	233
70	120	170	186	270	235
75	124	175	189	275	237
80	128	180	192	280	239
85	132	185	194	285	241
90	136	190	197	290	243
95	139	195	199	295	245

Name:

TOP milliseconds (ms)

230 228 226 224 221 219 217 214 212 209 207 205 202 197 194 192 189 186 184 181 178 175 172 171 171 169 167 167 166 163 160 156 153 150 146 143 139 136 132 128 124 120 115 111 106 101 96 90 85 78 71 64 55 45 32 0

WAKE UP!
SLUGGISH
Averages for good sprinters
Male Sprinters is 0.171s
Female Sprinters is 0.167s

AVERAGE
SPRINTERS
VERY QUICK

The PE Millisecond Reaction Timer

A Millisecond *(ms)* is 0.001s ie: a one thousandth of a second *(NOT A MILLIONTH!)*

INCREDIBLE
To catch the timer in this zone is impossible without anticipation

Cut out Reaction Timer and carefully fold in half. Place a 12 inch/30cm Ruler inside the timer and tape it securely in position. Steady your hand by resting your elbow on a table. Have a friend to hold the timer at the top and dangle it so the bottom end comes between your thumb and index finger poised exactly 1cm apart, ready 'pincer like', with the timer central in the gap, not touching, with its zero mark aligned along the top of your thumb. Do this as accurately as possible. Then without warning your friend lets the timer go and you must catch it as quickly as you can. Read your result along the top of your thumb in the same way as you aligned it at the start. Your friend must vary the delay between being ready and dropping or you will anticipate and score less than 100 milliseconds! Which is impossible, since your nerves and muscles cannot work that fast!

Without touching scale, 5mm gap either side, align the top of your thumb with zero mark; read time at same point.

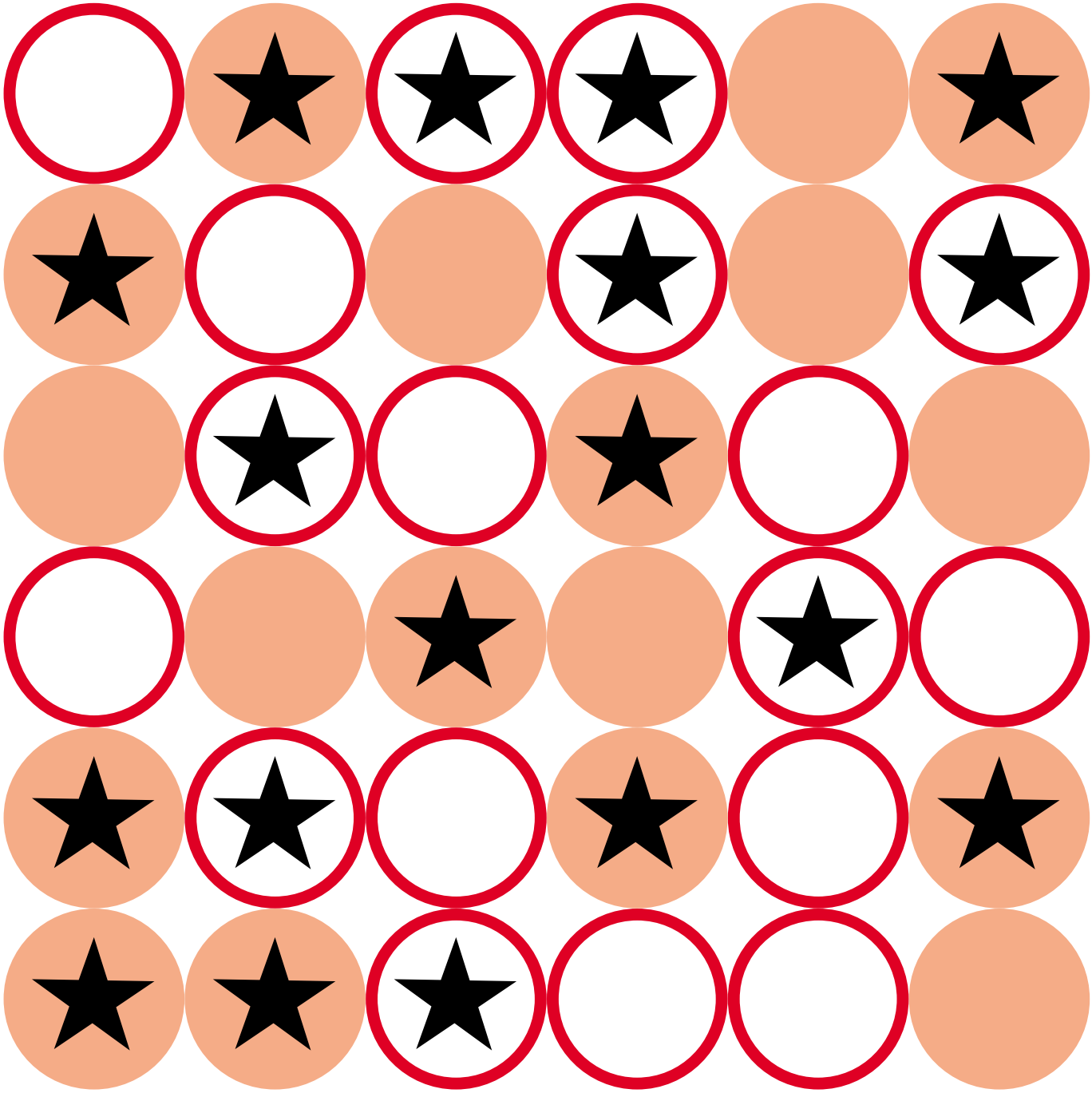
Fold in half along this line

Without touching scale, 5mm gap either side, align the top of your thumb with zero mark; read time at same point.

Continued --->

Name: Class: Date:

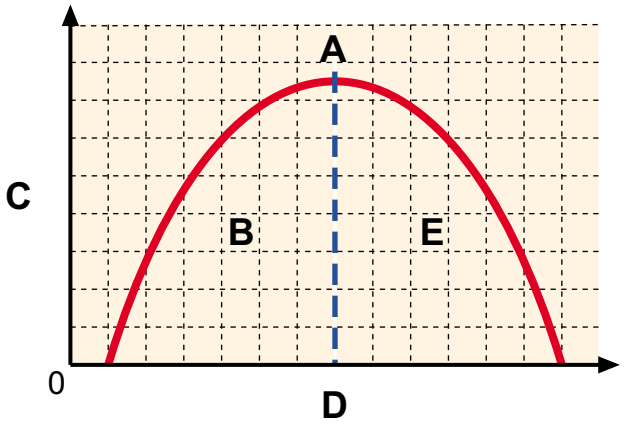
Work in groups of 3. Tape the sheet to the tabletop. First, without any pre-practice at all, accurately time how quickly you can carry out the following exercise; start the stopwatch yourself, tap every white circle in the same order 5 times over (making 18 x 5 = 90 targets) and stop the clock yourself, record your result. Then repeat for every grey circle, in sequence, 5 times (making 18 x 5 = 90 targets), record your result. Then every star, in sequence, 5 times (making 18 x 5 = 90 targets), record your result. Now choose one different symbol each between yourselves to practice on. Concentrate on your symbol, tapping on it as fast as you can, learning the pattern, for 5 minutes. Then time yourselves again on all the symbols as before, carefully recording your results. **Can you explain what has happened?**



Name: Class: Date:

Task 1

Match the letters on the inverted U graph with the correct numbered label, by filling in the bottom row of the grid provided.



1 Under-arousal

2 Arousal

3 Over-arousal

4 Optimum point

5 Performance

A	B	C	D	E	Score

Task 2

Can you recall an occasion where your performance suffered as a result of:

a under-arousal?

b over-arousal?

Task 3

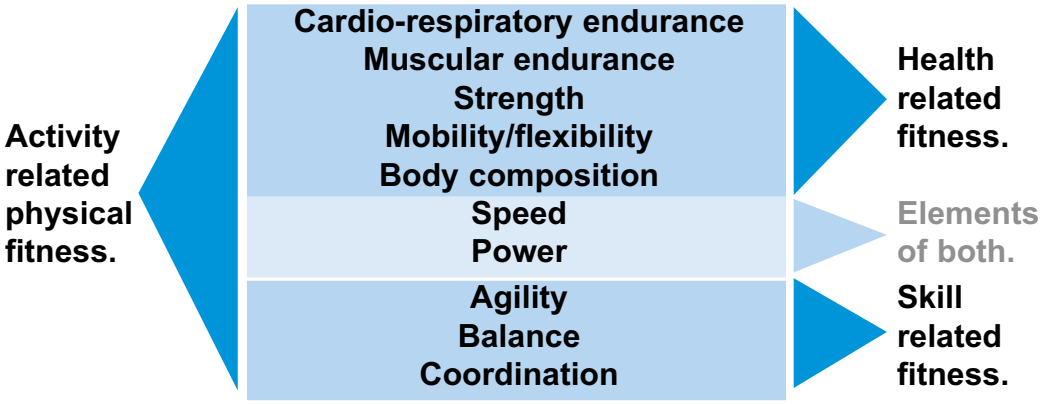
Can you recall an occasion in international sport where a performance suffered as a result of:

a under-arousal?

b over-arousal?

Name: Class: Date:

There are many components of physical activity related fitness, some of these components are health related, and some are skill related.



Task 1 Match each type of fitness component with the appropriate type of activity in which you think it is used and/or developed the most. Use the table above to help you decide (there will be many overlaps).

Type of fitness components		Activities	
1	Press ups and squat thrusts	**A**	Cardio-respiratory endurance
2	Weightlifting	**B**	Muscular endurance
3	Dance	**C**	Strength
4	Long distance running and swimming	**D**	Mobility/flexibility
5	Pole vaulting	**E**	Agility
6	Sprinting, football and squash	**F**	Speed
7	Jumping	**G**	Power
8	Sumo wrestling	**H**	Body composition
9	Fencing	**I**	Balance
10	Beam exercises and wind surfing	**J**	Co-ordination

A	B	C	D	E	F	G	H	I	J	Score

Continued --->

Name: Class: Date:

Power is also known as explosive strength. It is a combination of speed and strength, and it is the rate at which you can work.

$$\text{Power} = \frac{\text{Force x Distance}}{\text{Time}}$$

Let us compare two competitors in the High Jump, both with perfect technique, jumping the same height (2m), but performer A weighs 60kg and performer B weighs 70 Kg.

Task 1 **Which one does common sense tell you must have exerted the greatest power?**

This is a fairly easy example, but now check your common sense guess.

Work out the equation in a simplified way, by taking the jumper's weight to be equivalent to FORCE, and assuming the time taken to clear the bar from take-off was 1 second, and substituting these figures into the equation.

Performer A

$$\text{Power} = \frac{60 \text{ x } 2\text{m}}{1} =$$

Performer B

$$\text{Power} = \frac{70 \text{ x } 2\text{m}}{1} =$$

Task 2 Now imagine that performer A jumps 2m 35cm, but performer B does not improve and still jumps 2m.

Which person does common sense tell you must have exerted the greatest power in this case?

This is not so easy to estimate.

Now check your common sense answer by using the same equation again but with the new values.

Performer A

$$\text{Power} = \frac{60 \text{ x } 2.35\text{m}}{1} =$$

Performer B

$$\text{Power} = \frac{70 \text{ x } 2\text{m}}{1} =$$

If you were one of those people who tend to get put off by equations, hopefully you can now see how useful they can be in checking exactly what is going on in sport performances.

Name: Class: Date:

This chart can be used to indicate how much a person is at risk from heart disease. From each vertical column one description which fits the subject best, and its score is chosen. These scores are then added up to give a risk factor which can be matched to the estimated risk. These estimated risks are set out in the table below the chart. Study the chart and then answer the questions on the following sheet.

Age	Sex	Weight	% animal fat in diet	Exercise	Tobacco smoking	Historyof heart disease	Blood pressure	
10-20 1	Female under 40 1	More than 5lbs below ideal weight 0	No animal fat 1	Hard manual job & exercise 2	Non smoker 0	None 1	Upper reading 100 1	♥
21-30 2	Female 40-50 2	Within 5lbs of ideal weight 1	10% animal fat 2	Manual job & moderate exercise 2	Cigar or pipe smoker 1	1 relative over 60 2	Upper reading 120 2	♥
31-40 3	Female 40-50 3	36-40lbs overweight 2	20% animal fat 3	Office job & hard exercise 3	10 cigarettes a day or less 2	2 relatives over 60 3	Upper reading 140 3	♥
41-50 4	Male 5	40-50lbs overweight 3	30% animal fat 4	Office job & light exercise 3	20 cigarettes a day 5	1 relative under 60 4	Upper reading 160 4	♥
51-60 5	Stocky male 6	50-60lbs overweight 5	40% animal fat 5	Office job & moderate exercise 6	30 cigarettes a day 7	2 relatives under 60 6	Upper reading 180 6	♥
61 & over 8	Bald stocky male 7	61lbs + overweight 7	50% animal fat 7	No exercise at all 8	40 cigarettes a day 11	3 relatives under 60 7	Upper reading 200 or more 8	♥
Category Score	Category Score	Category Score	Category Score	Category Score	Category Score	Category Score	Category Score	RISK FACTOR
+	+	+	+	+	+	+	=	

RISK FACTOR	ESTIMATED RISK
Less than 12	Well below average risk
12-17	Below average risk
18-24	Average risk

RISK FACTOR	ESTIMATED RISK
25-31	Moderate risk
32-40	Dangerous risk
41 & over	Danger - see Doctor!

Continued --->

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Solutions

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The pack also includes a number of activities designed to involve students in the learning process in different ways, including, cut out figures, and a card game.

The worksheets are designed so that they can either; be issued to become part of his or her notes, forming a useful reference and revision resource, or can be issued and reissued (saving on photocopying costs and time) with pupils filling in their responses on a separate sheet. For purposes of economy and ease of marking of simple matching pairs questions, where no advantage is to be gained by the pupil writing out the answer, the Master Grid Sheet (master supplied), may be used.

Answers are supplied where appropriate. With more open-ended questions examples of possible answers are given.

Name: Class: Date:

Six areas of activity are identified in P.E., they are:

1 Games
2 Gymnastic activities
3 Dance
4 Athletic activities
5 Outdoor and adventurous activities
6 Swimming

Task 1 **List 3 examples of each of the above.**

1 e.g. Football, Hockey, Rugby.

2 e.g. Gymnastics; Trampolining; Diving.

3 e.g. Ballet; Line Dance; Pairs skating.

4 e.g. Running; Jumping; Throwing.

5 e.g. Climbing; Sailing; Skiing.

6 e.g. Swimming; Floating; Sub-Aqua.

Task 2 **Give 2 examples of physical activities that you think:**

a could be called sport but are not normally considered to be part of P.E.;

e.g. Horse-riding; Hang gliding.

b could be called P.E. but not sport.

e.g. Circuit training; Rope climbing.

Continued --->