Boffins 7

<u>100</u>	<u>JM.</u> True or false?			
<u>1)</u>) Light travels in straight lines from a light source to your eye.			
2)	Light can shine directly around corners.			
3)	Light can only shine around corners if it is reflected by an object.			
4)	If an object is in the way of a light source, we can see a shadow.			
	We can cast shadows without a light source.			
6)	We can see things when light bounces off them and into our eyes.			
7)	We can see things when light bounces into our eyes and onto the object.			
8)	Light travels at a) 18.6 miles per second }			
	b) 186 miles per second } Say which one is the true answer.			
	c) 186000 miles per second }			
9)	When we see colour, most of the white light from the source is being absorbed by the object we are			
	looking at, but the light of that particular colour is being reflected back from the object.			
10)	White things are reflecting all of the light back, while black things are reflecting almost none of the			
	light back to us.			
	One point for each correct answer. Points:			
1) 2) 3) 4) 5) 6) 7) 8) 9)	welin Which of these objects is a light source. Write yes or no. The Sun The Moon A Mirror The Earth Silver foil A candle The Stars The other planets An electric light Fire One point for each correct answer. Points:			
	OM. Put these objects into their appropriate groups; transparent, translucent or opaque. glass, plastic sandwich box, wooden pencil, metal coin, water, clear plastic bottle, tissue paper, brick, a dog, mirror, plastic milk bottle			

TRANSLUCENT

<u>OPAQUE</u>

TRANSPARENT

Discus Put in a word to make these sentences make scientific sense.

- 1) The higher the Sun is in the sky, the the shadow will be.
- 2) The Sun is highest at so the shadows then are (shorter/longer) than at the rest of the day.
- 3) Morning and evening give the (shortest/longest) shadows.
- 4) The (closer/further away) the light source is to an object, the larger the shadow cast.
- 5) A light ray hitting a mirror at an angle is reflected off at (the same/a different) angle.
- 6) Sound happens when something
- 7) Sound vibrations travel through the as of sound.
- 8) Sound waves make our vibrate. This vibration is sent to our brains.
- 9) Sound (can/can't) travel through solid objects, such as walls, windows, etc.
- 10) Sound (can/can't) travel through a vacuum because there's nothing to vibrate.

One point for each correct answer.

Points:....

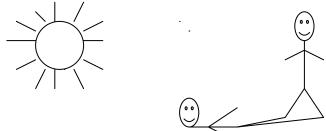
Weight Lifting Answer just one of these questions.

- 1) During a summer day, at what time of the day would your shadow be shortest? (2 points)
- 3) What instrument is used in a submarine to allow the sailors to see above the waterline? (6 points)
- 4) Which instrument is higher pitched a violin or a double bass? Why? (8 points)
- 5) If you blew over the top of a bottle to get a note, would it be higher or lower if you added water to the bottle? Why? (10 points)

Points:

Steeple Chase

- 1) The harder you beat a drum, the (softer/louder) the noise.
- 2) The tighter a guitar string is, the (higher/lower) the pitch of the note.
- 3) What is wrong?



- 4) What type of objects reflect light well?
- 4) Light rays always travel in lines.
- 5) Which travels faster, sound or light?
- 6) Sounds travel through the air in
- 7) Why does the white paper in your book look white?
- 8) What is wrong?

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One point for each correct answer.

Points:

Total Points:

- 9) Tom wants to see what the Sun looks like. a)Is it all right for him to look directly at it? b)Why?/Why not?
- 10) He also wants to look at the Moon. a) Should he look directly at it with his new telescope?
 - b) Why?/Why not?
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