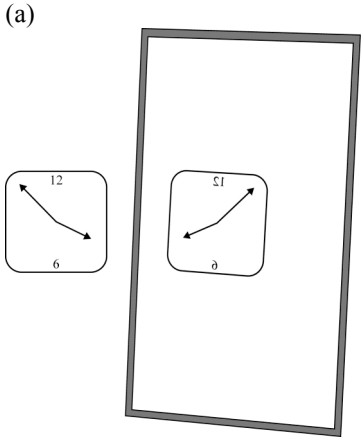
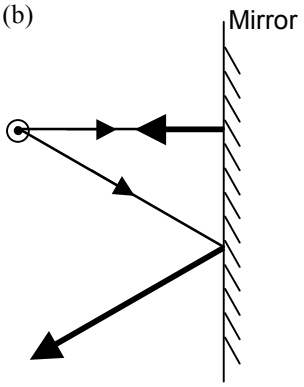
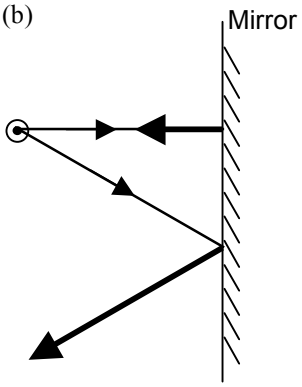
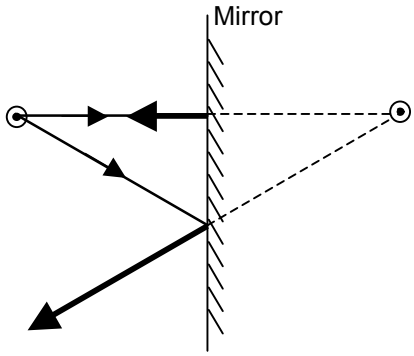
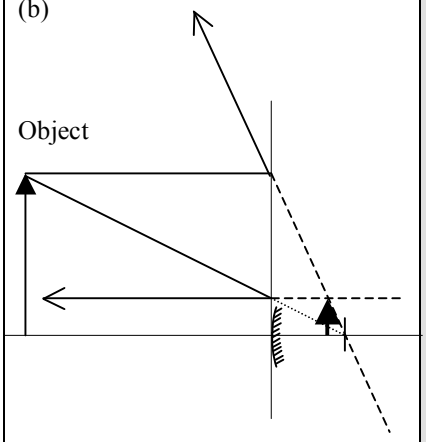
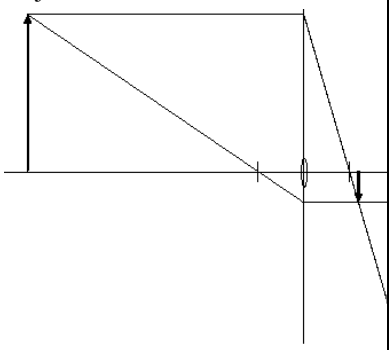
Assessment Schedule – 2005

Science: Use physics concepts and principles to describe the behaviour of light (90768)

Evidence Statement

Q	Achievement	Achievement with Merit	Achievement with Excellence
1	(a)  1 error allowed.		
1	(b)  One reflected ray drawn correctly.	(b)  **BOTH** rays drawn correctly **AND** Reflected angle must equal incident angle ±1°.	
1 (c)		Follow on error from (b) – correct virtual image drawn for incorrect rays. If both rays are correct but are not dotted.	(c)  Image must be equal distance behind mirror as object in front and (virtual **dotted** rays) projections of reflected rays.

Q	Achievement	Achievement with Merit	Achievement with Excellence
2	(a) Image is virtual, upright, diminished. Two of these correct. (Object and image each needs to be an arrow, correct physics symbolism.)	(b)  Two rays **AND** image drawn accurately.	
3	Refraction (1) **AND** total internal reflection (2) **AND** refraction (3). Any ONE correctly described.	Refraction (1) **AND** total internal reflection (2) **AND** refraction (3).	Refraction and spectrum (1) **AND** total internal reflection (2) **AND** refraction (3).
4(a)	Red reflected so will appear red **OR** Yellow (**or** green) **AND** blue (**or** violet) absorbed.		
4(b)	Red is absorbed by cyan filter.	In overlapped filters red is absorbed **AND** yellow (**or** green) **AND** blue (**or** violet) is absorbed **AND** there is no light left = black.	
5	Object  Object in correct position **AND** at least ONE light ray drawn accurately.	Object in correct position **AND** focal points inserted correctly **AND** TWO rays drawn accurately **AND** image shown correctly.	**ALSO** image size correct (10 ± 2 mm) **AND** nature of image real, diminished, inverted (at least TWO) described **AND** image distance = 25 ± 2 mm.

Judgement Statement

Achievement	Achievement with Merit	Achievement with Excellence
THREE opportunities answered at Achievement level or higher. 3 × A	SIX opportunities answered with at least THREE at Merit level or higher. 3 × M *plus* 3 × A	SIX opportunities answered with TWO at Excellence level and at least TWO at Merit or higher. 2 × E *plus* 2 × M *plus* 2 × A