

## Mark schemes

**Q1.**

(a) increases

1

(b)

$$(\text{mass} =) \frac{7000}{3000}$$

1

$$= 2.33 \text{ (kg)}$$

*allow 2.333333 correctly rounded to at least 2 significant figures*

1

(c) rain

1

(d) five points plotted correctly

*allow a tolerance of  $\pm \frac{1}{2}$  a small square*

*allow three or four points plotted correctly for 1 mark*

2

line of best fit

1

(e) increases

1

(f) dimming

1

**[9]**

**Q2.**

- (a) coal is a solid  
*ignore references to cost*  
 1
- (so solid) coal cannot flow through pipelines  
*allow (so) coal has to be made into a slurry to flow through pipelines*  
 1
- (b) (fuel) coal  
 1
- (reason) (coal contains the) highest percentage of sulfur  
*MP2 is dependent upon MP1 being awarded*  
 1
- (c) any **one** from:  
 • acid rain  
*allow specified effects of acid rain*  
 • respiratory problems (in humans)  
*allow specified respiratory problems*  
 1
- (d) (fuel) (natural) gas  
 1
- (reason) (natural gas produces) fewer / fewest solid particles  
*MP2 is dependent upon MP1 being awarded*  
 1
- (e) any **one** from:  
 • global dimming  
 • health problems for humans  
 1
- (f) combustion  
 1
- (g) any **three** from:  
 • more oil is used than gas  
 • use of oil has decreased overall  
 • use of oil increased in some years  
 • there was a large drop in use of oil between 2019 and 2020  
 • use of natural gas decreased overall  
 • use of natural gas increased in some years  
 • use of natural gas remained fairly constant from 2014 to 2020  
 3