Science Trivia **5th grade** Updated 2012 **5.3 Light** (Force, Motion, and Energy)	1 Light is _____
2 Light can be identified as a small particle called a _____ and moves in a _____ _____.	3 Light has both, _____ and _____ fields.
4 What is it when several different wavelengths of light travel together?	5 What is the ability of light to cause change (such as heating an object)?
6 What is the change in the direction of waves as they bounce off a surface?	7 What is the bending of waves as they travel at an angle from one object to another?
8 _____ determines the color of light.	9 What is the band of light waves in the electromagnetic spectrum that vibrates at frequencies our eyes can detect?

10 When light hits an opaque object, it is either _____ or _____.	11 The color you see after light hits an object is the wavelength of light that has been _____.
12 Light waves _____ if they hit an uneven or smooth surface.	13 Light travels more slowly through water than air, so when looking at a pencil in a glass of water, it looks broken. As light passes from one material to another, it is _____
14 A _____ is a tool used to bend wavelengths of light at different angles so we can see all the colors of light.	15 What are the colors of the the visible spectrum?
16 Which color has the shortest wavelength in the visible spectrum and the ***most*** amount of energy?	17 Which color has the longest wavelength in the visible spectrum and the ***least*** amount of energy?
18 What optical tool is used to refract white light?	19 Light travels from the sun to the Earth in less than-

20 _____ cause the sun to look flat.	21 Refraction depends on what three things?
22 A rainbow is an example of both _____ and _____.	23 _____ is the separation of light.
24 _____ cause the dispersion of light.	25 Light travels _____ than sound.
26 Light waves move as _____ waves.	27 Light travels in a straight line called a _____.
28 A group of parallel rays of light is a -	29 The amount of energy in a light wave is related to its-

30 An object that lets NO light pass through it is-	31 An object that allows SOME light to pass through it is-
32 An object that allows *almost* ALL light to pass through it is-	33 A concrete wall or wood would be an example of an _____ object.
34 A clear window or glass of water would be an example of an _____ object.	35 A shower door or wax paper would be an example of an _____ object.
36 Which type of light waves has the *most* energy?	37 Which type of light waves has the *least* energy?
38 What color represents the total <u>absence</u> of reflected light?	39 What color represents the reflection of all the visible light together?

1

energy

2

photon
straight line

3

electric
magnetic

4

white light

5

light energy

6

reflection

7

refraction

8

wavelength

9

visible spectrum

Answers – Level 5.3

11

reflected

10

reflected or absorbed

13

refracted

12

scatter

15

red, orange, yellow, green
blue, violet
(ROYGBV)

14

prism

17

red

16

violet

19

8 ½ minutes

18

prism

21

density of material
wavelength of wave
the angle wave enters objects

20

refraction

23

dispersion

22

refraction
and
reflection

25

faster

24

prisms

27

ray

26

transverse

29

frequency

28

beam

31

translucent

30

opaque

33

opaque

32

transparent

35

translucent

34

transparent

37

radio

36

gamma

39

white

38

black