

Name _____ Date _____ Bell _____

Unit 8: Lesson 3- What are Some Properties of Light?

Vocabulary

1. light (page 374)-

2. Opaque (page 374)-

3. Transparent (page 375)-

4. Translucent (page 375)-

5. Reflection (page 376)-

6. Refraction (page 378)-

7. Prism (page 379)-

Just Passing Through Pages 374-375

1. What is light?

2. How does light travel?

3. What does opaque mean?

4. What is an example of an opaque material?

5. What do opaque materials create because the objects absorb or reflect all of the light that hits them?

6. What does transparent mean?

7. What is an example of a transparent material?

8. What does translucent mean?

9. What is an example of a translucent material?

10. How do these different amounts of absorption affect how you see objects?

11. What term best describes a clear glass window? _____

12. If the window becomes very dirty and hard to see through, which term might best describe it?

13. Why doesn't clear glass cast a shadow?

14. What happens to light energy when it is absorbed by a material?

15. What kind of material receives the least amount of energy when light strikes it?

Mirror, Mirror Pages 376-377

16. What is reflection?

17. What happens when light strikes a mirror?

18. What is unusual about the image that reaches your eye after bouncing off a smooth surface?

19. Why can't you see an image in something with a rough surface?

20. How can we see color?

21. Explain how we can see the color red.

22. Explain how we see black and white?

23. What colors should you wear on a hot sunny day? Why?

24. Why does a mirror produce a reflection including many colors rather than black and white only?



Light Bends Pages 378-379

25. What is refraction?

26. Why does refraction occur?

27. What is an example of refraction?

28. When does light bend? _____

29. What causes light to change speed?

30. When refraction occurs, why do our eyes perceive a bend in an object?

31. What is a concise way to explain how refracted light and reflected light are different?

32. What is a prism?

33. Explain how a prism works?

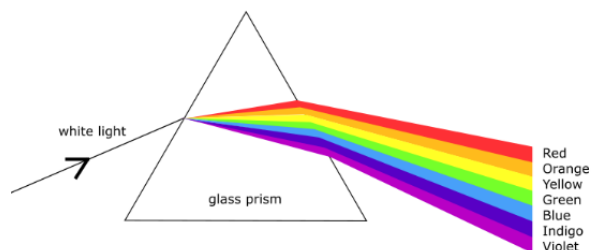
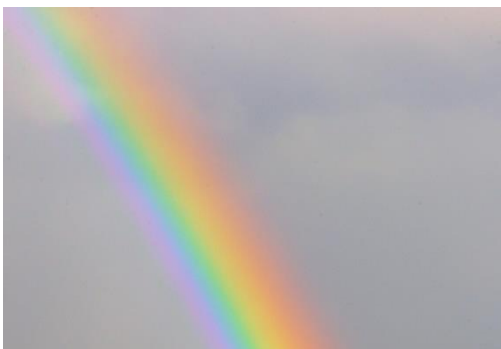
34. What is produced by a prism? _____

35. What does a prism have to do with refraction?

36. What is diffraction?

37. What happens to the edges of our shadows because of diffraction?

38. How are diffraction and refraction similar and different?



Lenses Pages 380-381

39. What are lenses?

40. Where can you find lenses?

41. What are two types of lenses?

42. What are convex lenses?

43. What are concave lenses?

44. How would you describe the shapes of convex and concave lenses?

45. How do the different shapes of convex and concave lenses relate to their functions?

46. Why are lenses made of clear glass or plastic?

47. In what sense is a lens in a small microscope and a lens from the Yerkes Observatory telescope designed to do the same thing?

48. How would you describe the function of a telescope?

49. What is the function of eyeglasses with concave lenses?

