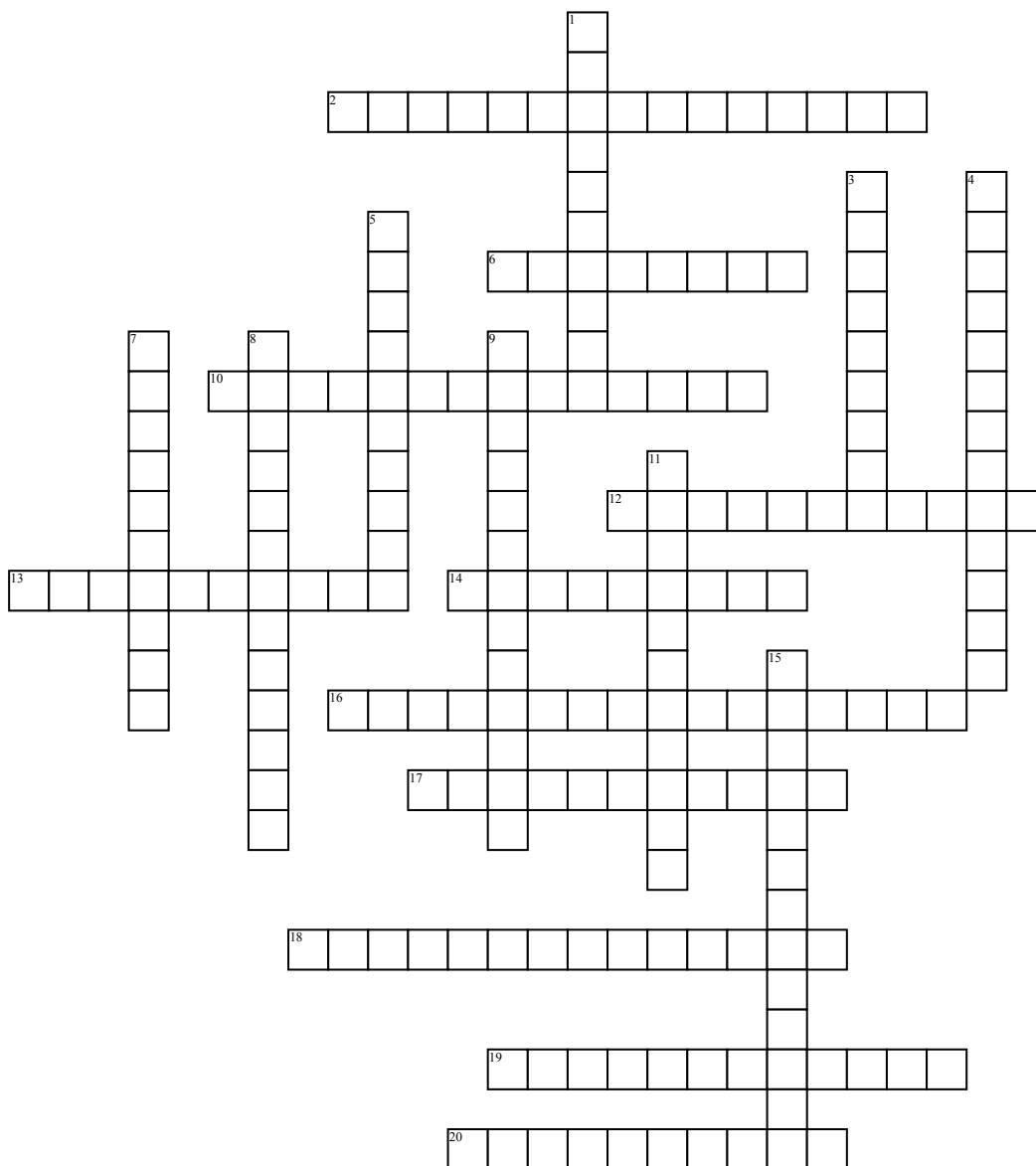


# Refraction and Lenses



## Across

2. a convex lens that is used to make a magnified image of an object  
 6. convex on both sides  
 10. light rays coming out of it come together at a point – they converge  
 12. the distance between the lens and the image sensor when the subject is in focus  
 13. bending of a wave when it enters a medium where its speed is different  
 14. concave on both sides  
 16. can calculate the image distance for either real or virtual images and for either positive or negative lenses  
 17. a transparent refracting device that is thicker in the middle than at the edges

18. distance of an object that is placed from the point of an incidence on the mirror

19. images that are formed in locations where light does not actually reach

20. point at where rays or waves meet after reflection or refraction

## Down

1. a technique for generating an image by tracing the path of light  
 3. an image that is located in the plane of convergence for the light rays  
 4. distance from the point of incidence of the mirror to the image  
 5. the separation of light into its spectrum

7. angle of reflection equals the angle of incidence

8. refracting and focusing light so that objects appear clearly

9. causes a beam of parallel rays to diverge after refraction, as from a virtual image

11. a transparent refracting device that is thinner in the middle than at the edges

15. is an increase or decrease in size of an image produced by an optical system compared to the true size