

## Lens Applications

Lenses make use of the light phenomenon of refraction. Optical devices that involve lenses have been used for centuries. These devices have benefited human greatly and have often led to great advances in knowledge. In this assignment, you will research an optical device and write a report.

Choose an optical device from the list below. Research the device and answer the given questions.

### Devices

- Binoculars
- Gopro camera
- Movie projector
- Overhead projector
- Magnifying glass
- Compound microscope
- Refracting telescope
- Any other optical device (approved by teacher)

### Questions

1. What is the device used for?
2. When was the device invented?
3. What kinds of lenses does the device use?
4. How does the optical device work?
  - Include a diagram showing the three light rays
5. Describe the image(s) produced by the optical device. (SALT)
6. Where must the object be located in relation to the lens?
  - i.e. beyond  $2F$ , at  $F$ , etc.

### References

You must include references to show where you got your information from. Please access the library page in the Southwood website to properly reference your work.

## Lens Application Marking Scheme

Name: \_\_\_\_\_

Optical Device: \_\_\_\_\_

0 – component not present

1 – component is incomplete or has errors

2 – component is complete and has no errors

Title	0	1	2
Question 1	0	1	2
Question 2	0	1	2
Question 3	0	1	2
Question 4	0	1	2
Question 5	0	1	2
Question 6	0	1	2
References	0	1	2
Spelling/Grammar	0	1	2
Overall Appeal	0	1	2

TOTAL                    /20