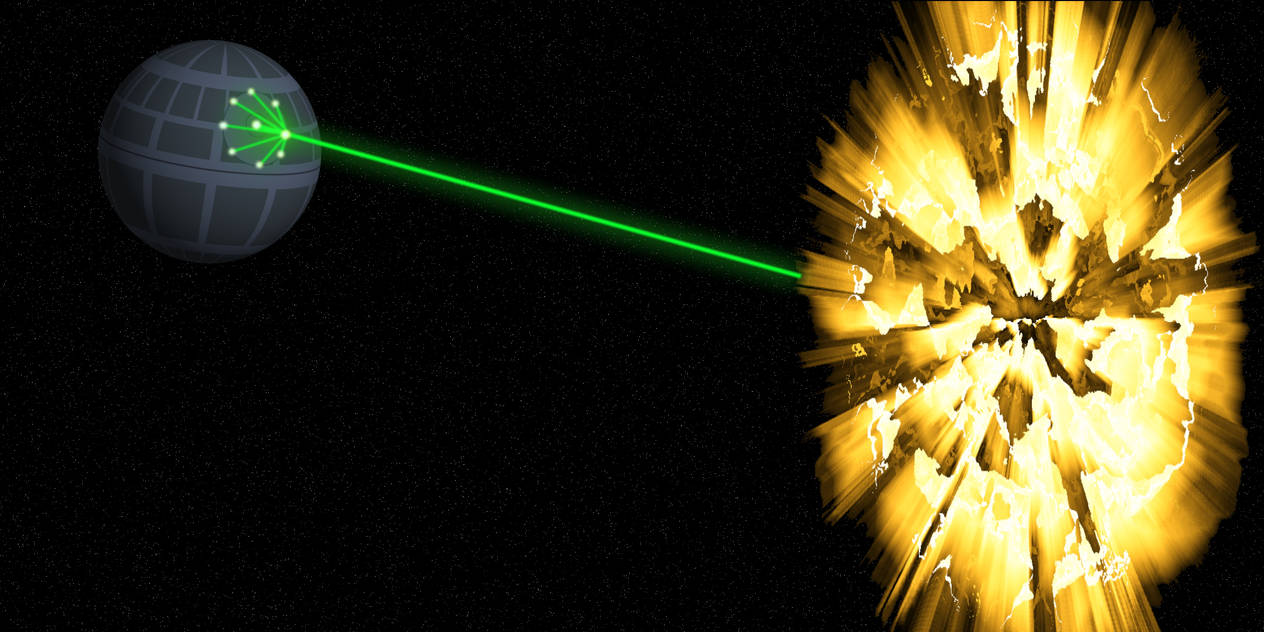
**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_**

# **Unit 1: Worksheet 2 - Seeing Things: How Light Transfers Information**



1. In the movie “Star Wars: Episode IV - A New Hope”, the Imperial Death Star destroys the planet Alderaan. If you were observing this event from a Rebel Alliance starship, to what extent does the picture above represent what you will see?
2. Explain (in words with or without diagrams) what you would actually see and why.
3. Explain what you would not be able to see (in words with or without diagrams) and why.
4. It’s a sunny day. Make a sketch below that includes yourself outdoors, the Sun in the sky and some random object like a tree. Explain in words how you are able to see the tree. Draw ray diagrams on your sketch to illustrate this.



1. It’s dusk, you look up in the sky and see a full moon rising. Draw a sketch of the Earth (with you on it), Moon, and Sun illustrating with ray diagrams how it is possible for you to see a full moon.
2. It’s a week later and on this night you see a Moon that looks like this.   
   Draw a sketch of the Earth (with you on it), Moon, and Sun illustrating with ray diagrams why you see this quarter phase moon.



1. It’s a week later and on this night you see a Moon that looks like this.   
   Draw a sketch of the Earth (with you on it), Moon, and Sun illustrating with ray diagrams why you see a new moon.
2. It’s a week later and on this night you see a Moon that looks like this. Draw a sketch of the Earth (with you on it), Moon, and Sun illustrating with ray diagrams why you to see this quarter phase moon. Note that it’s different from the quarter phase in question 6.