Computers: IMPACT CRATERS

Interactive
https://www.jpl.nasa.gov/multimedia/neo/spaceRocks.html
or https://www.jpl.nasa.gov/multimedia/neo/index.cfm

Click on each of the objects shown on the home page…
Read/watch presentations and describe each, including an interesting fact.

1. Chart:

Meteors & Meteorites	
Asteroids	
Near Earth Objects	
Potentially Hazardous Objects	
Comets	

At the bottom click on "Size Matters"

2. How often do the various size objects collide with earth? (list each size and how often)

Click "Crater Map" Tab

3. How many craters are shown on the map?

4. Pick one. Where is it located? Describe it.

Click the “How Big” Tab

5. Describe what happens to the various sizes of space rocks when they collide with Earth and what the destruction would be for each.

At the bottom click on “Location, Location, Location”

6. Where are most of the objects located in our solar system?

Click on the “Craters Beyond Earth” Tab – read and watch the clip

7. What did you learn about Mercury and our Moon?

At the bottom click on “Early Bird”, read & watch clips & click through the tabs to answer the following…

8. What happens when a NEO is detected?

9. What is NASA’s goal in the near future?

10. If an object were to threaten Earth what are some ideas that have been thought of that would lesson Earth’s risk of being hit?

11. Describe some of the missions to study NEO’s and why they are important.

TERRESTRIAL IMPACT CRATERS
http://www.solarviews.com/eng/tercrate.htm

12. Although the Earth has been bombed heavily by meteors and asteroids throughout its 4.6 billion year history, it is far easier to find evidence of craters on planets such as Mercury and Mars, as well as our Moon. Why is this?

13. What is a meteorite and why are thy difficult to find?

14. Distinguish between simple and complex craters.

15. What factors caused the last great extinction on the Earth 66 million years ago?

16. Check out the diagram (cross section of Cretaceous-Tertiary boundary). A layer of the element iridium is found at this geologic boundary. Look up "iridium" and list 3 things about it.

METEOR CRASHES – ASTEROID IMPACT SITES ON EARTH – ZOOM IN AND INVESTIGATE!
http://geology.com/meteor-impact-craters.shtml

17. Check out the "Terrestrial Photo Gallery" on the bottom of the page. Select any two and open up the jpeg (one at a time). In your own words, compare and contrast the two that you selected.

NASA Space Place
https://spaceplace.nasa.gov/craters/en/

18. Describe the timeline of an impact crater.

BARRINGER METEOR CRATER NEAR WINSLOW, AZ
http://www.barringercrater.com/ click on the link: "crater history"

FORMATION AND GEOLOGIC HISTORY OF CRATER LAKE
http://oe.oregonexplorer.info/craterlake/formation.html
http://oe.oregonexplorer.info/craterlake/geology.html
http://pubs.usgs.gov/fs/2002/fs092-02/

19. Crater Lake in Oregon is shaped like Meteor Crater in Arizona. What was the cause of each feature and when did each one form?

IMPACT CRATERS IN THE CAROLINAS? (middle of page – starts with "In 1931, the states of North and South Carolina…"
http://www.atlantisquest.com/Asteroid.htm

20. What was the cause of the large number of oval-shaped water features (known as the "Carolina Bays?"

What hit Siberia 103 years ago? Tunguska event still puzzles scientists
http://www.sciencedaily.com/releases/2008/07/080701105330.htm
A visit to the site of theTunguska, Siberia explosion in 1908
http://www.youtube.com/watch?v=mQSwVMBIeKg

21. Imagine being a reporter in the village of Vanavara, Siberia in 1908. You survived the great explosion and sent a telegraph to inform others around the world. What message would you have sent? (5-8 lines)

American Meteor Society
https://www.amsmeteors.org/
Moment meteor exploded over Russian city
http://www.bbc.com/news/av/world-europe-24553733/moment-meteor-exploded-over-russian-city

22. When is the next Meteor shower?

23. What happened in Russia in 2013? Any damage?
