Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pd: \_\_\_ Ast: \_\_\_\_\_

**Birth of the Solar System Video Questions**

1. (2:25) What do we call the theory that nebulae collapse in and condense into planets and stars?

nebular theory

1. (4:05) What kind of light is used to help the Spitzer telescope see into a “dusty” nebula and to help fire fighters see through smoke and dust?

infrared light

1. (7:52) How long ago do scientists believe that our star (the Sun) was “born”?

about 4.5 billion years ago

1. (11:14) What are the two oldest types of material in the Solar System?

asteroids and comets

1. (17:27) What do scientist think may have “swept together the material of our nebula” which allowed gravity to collapse the cloud and form new stars?

blast waves from a nearby supernova

1. (19:48) What do we call the process where small particles become charged and attract each other, which may explain how the planets formed from the dust surrounding the early Sun?

accretion

1. (22:22) What do we call the effect of “curved space-time” that affects the motion of planets within the Solar System?

gravity

1. (23:55) What types of materials CAN condense in the extremely high temperatures of the inner solar system (closest to the Sun)?

metallic particles (that form Mercury)

1. (25:10) What is the “closest thing we have in the Solar System to your conception of hell?”

Venus

1. (25:28) What planet has the nickname, “the Goldilocks” planet, because it’s orbiting at “just the right distance from the Sun” so it’s not too hot and not too cold?

Earth

1. (30:39) What planet has the Solar System’s largest canyon and largest volcano?

Mars

1. (32:24) What is the average distance between asteroids in the asteroid belt?

about 1 million miles

1. (34:24) What planet has a mass over 300 times that of Earth?

Jupiter

1. (35:17) What do scientists believe would happen if you had 2 planets the size of Jupiter in one solar system?

their mass would eventually “knock out” all of the other planets

1. (36:52) Why does Uranus have a “flat, green” color?

methane gas

1. (37:32) What is found around 45 billion kilometers from the Sun?

the Kuiper Belt

1. (45:43) What do scientists theorize may have happened as a result of Jupiter’s and Saturn’s gravitational pull that caused “swarms of asteroids” to be ripped out of their place and bombard the inner solar system (including Earth and the Moon)?

Uranus and Neptune may have switched places