Directions: Go to the following website: https://www-k6.thinkcentral.com/ePC/start.do
Use the log in that is taped to the top of your laptop. If you are absent or completing the assignment for homework, use student30 as the username and science as the password.

Go to Student Resources. Click on “My Library” then click on “student resources”. Next, click on Unit 4 Reproduction and Heredity and go down to Lesson 3 “Asexual and Sexual Reproduction”. Next to that, click on the digital lesson arrow. Follow the instructions given for each slide. After or while you watch the digital lesson, answer the following questions. You can also use the textbook (pages 204-213).

Use your notes to complete the chart:

<table>
<thead>
<tr>
<th>Type of Reproduction</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asexual</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Are all species limited to either sexual or asexual reproduction?

2. If an organism starts from only one cell, how do we get different body parts and organs?

3. What is a disadvantage of an organism that multiplies rapidly through binary fission?

4. What advantage might a hermaphrodite have in terms of reproduction?

5. Why is it an advantage for an organism to be able to reproduce both sexually and asexually?

6. Why don’t the offspring produced during sexual reproduction look identical to a parent?

7. When an animal is cloned, is it considered sexual or asexual reproduction?
8. The offspring of a plant that reproduces asexually will -

A. share all of the parent’s characteristics
B. be incapable of producing flowers
C. fail to grow and develop normally
D. develop fruit even if the parent did not

9. Which of these occurs in sexual reproduction but not in asexual reproduction?

F. Genes carry genetic information.
G. An offspring is made of cells.
H. Cells from two organisms combine.
J. An offspring inherits a set of traits.

10. Strawberries can reproduce by means of runners, which are stems that grow horizontally along the ground. At the region where the runner touches the ground, a new plant develops. The new plant is genetically identical to the parent because -

A. it was produced sexually
B. nuclei traveled to the new plant through the runner to fertilize it
C. it was produced asexually
D. there were no other strawberry plants in the area to provide fertilization
11 Hydras reproduce by a process known as budding. This process is the formation of a new individual that is a clone of the parent. This type of reproduction is -

F sexual
G sporulation
H asexual
J binary fission

12 What would be a possible disadvantage of the type of reproduction shown in the diagram?

A ability to reproduce in the absence of a mate
B results in low genetic variation for the species
C allows for more genetic variation in the offspring
D takes less time to produce offspring

13 In an environment that undergoes frequent change, species that reproduce sexually may have an advantage over species that reproduce asexually because the sexually reproducing species produce -

F more offspring in each generation
G identical offspring
H offspring with more variety
J new species of offspring in each generation
14 Look at the illustration above. Illustration A is an example of:

A  sexual reproduction
B  asexual reproduction
C  nonsexual reproduction
D  genetic coding

15 The illustration above depicts two types of reproduction. Identify which of the following statements correctly summarizes the types of reproduction and the diversity of the offspring.

F  A: sexual reproduction, diverse offspring
   B: asexual reproduction, diverse offspring

G  A: asexual reproduction, diverse offspring
   B: asexual reproduction, offspring the same as parent

H  A: sexual reproduction, diverse offspring
   B: asexual reproduction, offspring the same as parent

J  A: sexual reproduction, offspring the same as parent
   B: sexual reproduction, diverse offspring

Types of Reproduction
16 According to the pictures, asexual reproduction results in new bacteria whose genetic material is -

A identical to that of the parent  
B not identical to that of the parent  
C half identical to both parents  
D identical to another parent

17 During asexual reproduction in paramecia, a single paramecium becomes two new paramecia. The genetic material of the new paramecium is usually -

F identical to the original  
G half the amount of the original  
H double the amount of the original  
J similar to the original

18 To teach her class about different forms of reproduction and how they relate to diversity, Mrs. Griffin asked her students to draw a picture of a simple organism. They were then supposed to get tracing paper and trace the organism again. This process most closely represents -

A sexual reproduction  
B spontaneous generation  
C genetic mutation  
D asexual reproduction
19 Which of the following statements about asexual reproduction is NOT true?

F two parent sex cells are needed

G the offspring are copies of the parent

H most single-celled organisms reproduce this way

J there is no diversity

20 Sexual reproduction -

A results in genetic variation in the offspring

B produces offspring that are identical to the parent

C decreases the chances of survival of the species

D results in genetic material being donated to offspring by only one parent

21 Pea plants can reproduce asexually or sexually. What is the term for organisms that can reproduce both ways?

F budding

G regeneration

H hermaphroditic reproduction

J captive breeding

22 In one student’s family, two of the children have curly hair, one child has wavy hair, and the fourth child has straight hair. Which of these processes is responsible for the variety of hair textures in this family?

A binary fission

B sexual reproduction

C asexual reproduction

D vegetative propagation