

ACTIVITY

1

AGRICULTURAL ECONOMIST • AGRICULTURAL SCIENCE AND BUSINESS TEACHER

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters

Agricultural Economist

Agricultural Science and Business Teacher

DIRECTIONS

Use the clues and information in the posters to complete the crossword puzzle.

Across

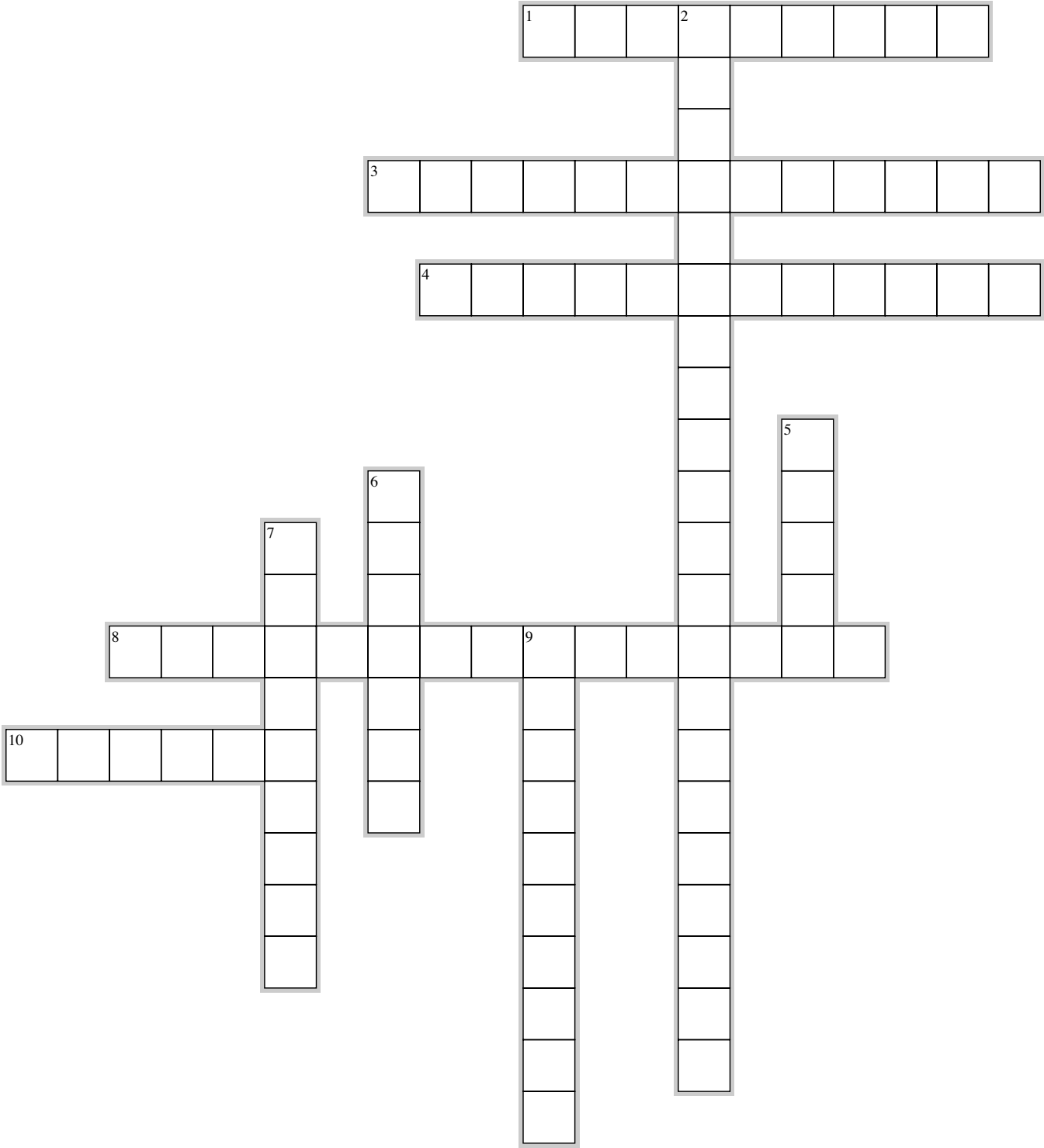
1. This type of institution may hire agricultural economists
3. Agricultural science and business teachers take courses in this and science in college
4. These firms provide things such as animal health, chemicals, seed and/or fertilizers
8. An undergraduate major in agricultural education is used to obtain this
10. Agricultural science and business teachers often work with these community members to teach agricultural production, business, or mechanical subjects

Down

2. Uses communication, analytical, and business skills to find success in sales, marketing, management, and finance
5. Many agricultural economists start their careers as this type of representative
6. Agricultural science and business teachers serve as this for the local FFA chapter
7. Along with the ability to work with people, agricultural economists must be able to make these
9. Agricultural science and business teachers emphasize this in addition to personal growth and career success

ACTIVITY
1

AGRICULTURAL ECONOMIST • AGRICULTURAL SCIENCE AND BUSINESS TEACHER



ACTIVITY

2

AGRICULTURAL ENGINEERING • REMOTE SENSING SPECIALIST

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters

Agricultural Engineering
Remote Sensing

DIRECTIONS

Fill in the blank with the correct term from the word bank. Find the word within the word search.

- _____ 1. Agricultural _____ apply basic science and engineering principles.
- _____ 2. Agricultural engineers _____ agricultural machinery and facilities.
- _____ 3. Remote sensing specialists analyze _____ photographs and satellite images.
- _____ 4. Color _____ photos may be used to map forest types.
- _____ 5. Agricultural engineers are _____ by builders.
- _____ 6. Federal and _____ agencies may hire remote sensing specialists.
- _____ 7. Agricultural engineers should enjoy _____ problems.
- _____ 8. Remote sensing specialists enjoy working with _____ and computers.
- _____ 9. Most remote sensing specialists are knowledgeable in Geographic _____ Systems.
- _____ 10. Agricultural engineers take a wide variety of engineering _____ courses in college.
- _____ 11. High school students interested in becoming an agricultural engineer should get involved in _____ that allow them to communicate or lead groups.
- _____ 12. Remote sensing specialists create maps of land use and land _____, such as deforestation.
- _____ 13. Animal _____ systems are designed by agricultural engineers.
- _____ 14. Many agencies and industries hire agricultural engineers, including manufacturers of _____ systems.
- _____ 15. Most remote sensing specialists have earned a college degree in disciplines such as geography, forestry, or agronomy, then _____ in remote sensing.

ACTIVITY

2

AGRICULTURAL ENGINEERING • REMOTE SENSING SPECIALIST

Word Bank

activities
aerial
changes
confinement

control
design
engineers
hired

information
infrared
maps
sciences

solving
specialized
state

U A J L A V C D S T A T E D S L Q M W J C S
R L G A A O W Q E C I T T R A P D E D O N E
F B Z I N I V W N Z I B E X F A C E N C G I
N O I T A M R O F N I E I K M A R F X H I T
B S R Y K V P E Y B N L N G L I I I C A S I
Q O M B O S O M A I X B A C H N L J Z N E V
L V G A N Y W S G Q H Y O I E I V X E G D I
H W F H P A P N L G J A F M C S G R N E K T
U C M J S S E X J U F M E U K E B E E S E C
I N F R A R E D I R A N V D L M P G R O Y A
O T R C E B G X H I T G N I V L O S E J I B
M A B F H X O N G V S K V V V A G U M S L M
S L J S J R K V U L F I R S T Y H X O S Q T
D O M L X X T W C Q F C Z H J M O P K M E C
C D O E Q P D C L X L Q L D C T F T O L Z D

ACTIVITY

3

AGRONOMIST • SOIL SCIENTIST • RANGE MANAGER • WEED SCIENTIST

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters
 - Agronomist*
 - Soil Scientist*
 - Range Manager*
 - Weed Scientist*

DIRECTIONS

Complete each sentence with a one-word answer using the information from the posters.

- _____ 1. Agronomists deal with _____ among plants, soils and the environment.
- _____ 2. Soil scientists map and _____ soils.
- _____ 3. Range managers care for the country's vast _____.
- _____ 4. Rangelands produce a sustained _____ of forage, wildlife, red meat, and clean water.
- _____ 5. Weed scientists teach, perform _____, and work in extension.
- _____ 6. Agronomists develop new crop hybrids and _____ that grow more efficiently.
- _____ 7. Private _____ hire range managers to manage ranches or other land.
- _____ 8. Soils _____ conduct research in everything from basic to applied issues of soil and water management.
- _____ 9. Soil scientists are hired by universities, private industries, _____ agencies, and chemical companies to name a few.
- _____ 10. Weed scientists work for agricultural _____ firms in research, development, sales, marketing and regulation.
- _____ 11. Range managers need a _____ degree in range science, management, or natural resources.
- _____ 12. Agronomists work for the USDA, state departments of agriculture or the Soil _____ Service.

ACTIVITY

3

AGRONOMIST • SOIL SCIENTIST • RANGE MANAGER • WEED SCIENTIST

- _____ 13. Diagnosing problems in weed _____ systems for private crop consulting companies is a duty of weed scientists.
- _____ 14. People looking to become a soil scientist should like working in the outdoors and studying _____.
- _____ 15. Agronomists generally have interest in science and _____ issues.
- _____ 16. Range managers who desire to teach or conduct research should obtain a _____ degree.
- _____ 17. Weed scientists who desire to perform laboratory research should earn a degree in chemistry, _____, or plant physiology.
- _____ 18. Soil Scientist often are called upon to identify soil problems such as wetness or _____ that limit soil use.
- _____ 19. Soil scientist are interested in how nutrients and pesticides move through the soil _____.
- _____ 20. Agronomists can even be employed as _____ forecasters.

ACTIVITY

4

ANIMAL GENETICIST • ANIMAL NUTRITIONIST • ANIMAL PHYSIOLOGIST

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters

Animal Geneticist

Animal Nutritionist

Animal Physiologist

DIRECTIONS

Use the clues and information in the posters to complete the crossword puzzle.

Across

1. In addition to a master's degree, many animal geneticists complete a _____ degree in a specialty area.
4. To become a physiologist, you should take classes and do _____ projects.
7. Animal nutritionists can teach the science and _____ of nutrition.
8. Animal nutritionists _____ diets for food, companion, or zoo animals.
10. Animal physiologists should be interested in animals and their _____.
11. In _____ sciences, animal geneticists try to understand gene functions.
14. Diets must be nutritionally sound, good-tasting, and _____.
15. Genes affect important _____ such as reproduction or behavior.
16. Marker-assisted _____ can be used to improve a wide range of important traits.
18. Animal nutritionists who desire research or management position should seek a _____ degree.

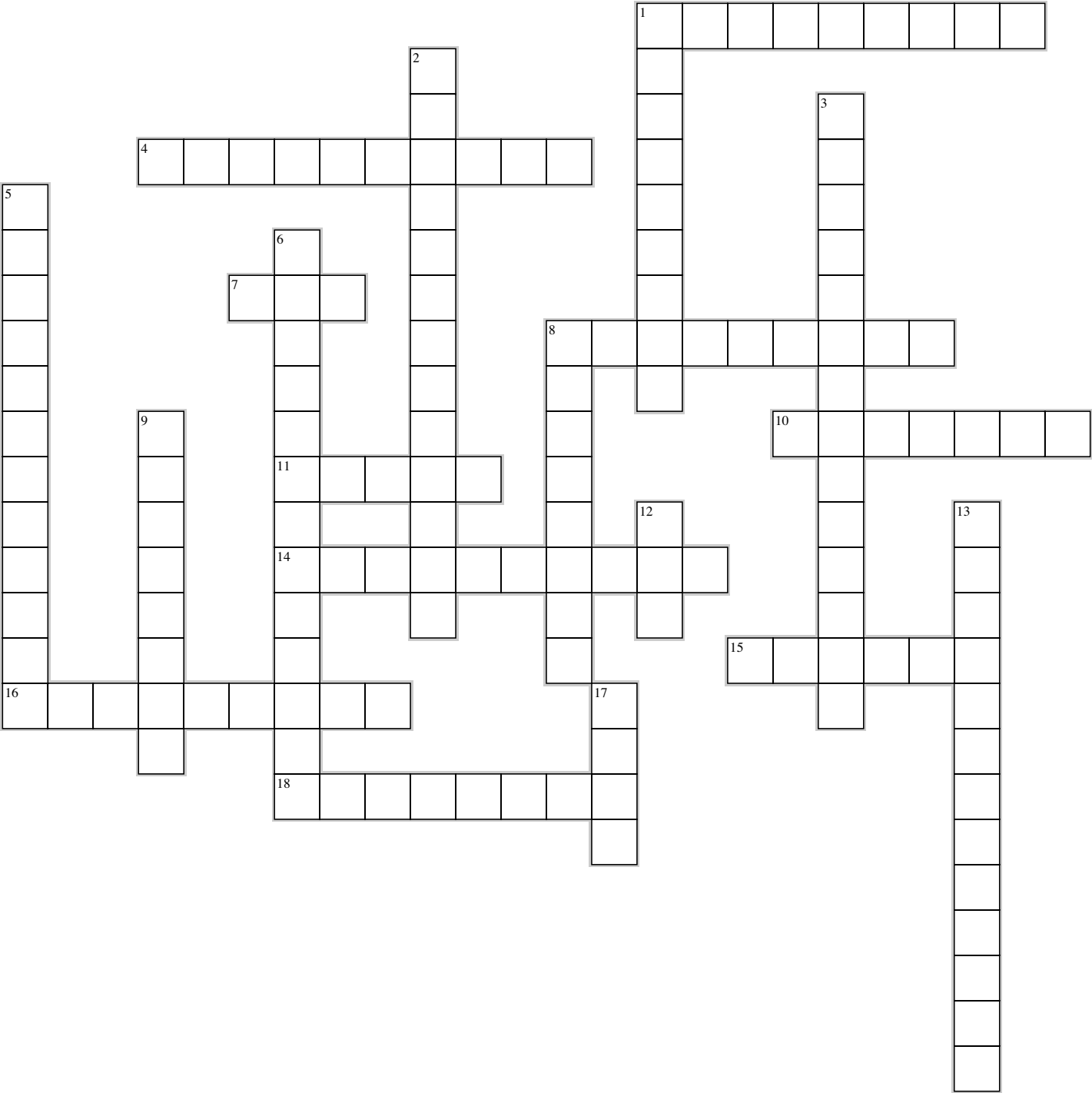
Down

1. Building _____ routinely consult animal physiologists as they plan space in animal housing.
2. Physiologists at universities teach students who want to become _____.
3. Animal geneticists may work for animal _____ companies.
5. Animal geneticists are hired by _____ to conduct research, teach, and perform outreach.
6. Some animal geneticists may focus on developing new mating strategies for _____.
8. Animal physiologists study how animals _____.
9. Geneticists may develop new drugs to combat _____.
12. Animal geneticists may try to _____ genes.
13. How animals interact with outside factors is one interest of animal _____.
17. _____ suppliers may consult animal physiologists on how diet affects the animals' systems.

ACTIVITY

4

ANIMAL GENETICIST • ANIMAL NUTRITIONIST • ANIMAL PHYSIOLOGIST



ACTIVITY

5

ANIMAL WELL-BEING SPECIALIST • VETERINARIAN

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters

*Animal Well-Being Specialist
Veterinarian*

DIRECTIONS

Fill in the blank with the correct term from the word bank. Find the word within the word search.

1. Animal well-being combines fields such as behavior, immunology, _____ and neuroscience.
2. Veterinarians complete a D.V.M which is a Doctor of Veterinary _____ degree.
3. Veterinarians safeguard _____ health by controlling diseases that can spread from animals to humans.
4. To determine the best environmental conditions, animal well-being specialists plan and run _____.
5. Animal well-being specialists communicate information through publications or to farmers at _____ meetings.
6. Animal well-being specialists must be interested in both science and _____ perception.
7. Many veterinarians start their own _____ or join group practices.
8. To become a veterinarian, you must complete at least _____ years of education beyond high school.
9. Veterinarians can work for _____ or pharmaceutical companies.
10. Animal well-being specialists may work with _____ animals, zoo animals, or companion animals.
11. Animal well-being specialists must have the ability to effectively _____.
12. In addition to a minimum of three years of undergraduate work, four years of _____ curriculum is required to complete the D.V.M.
13. Basic math and _____ abilities are required of animal well-being specialists.
14. Graduate students in animal well-being take more _____ courses in specific disciplines.
15. Veterinarians may join the _____, work as researchers, teachers or clinicians.

ACTIVITY

5

ANIMAL WELL-BEING SPECIALIST • VETERINARIAN

Word Bank

agricultural
businesses
communicate
endocrinology

experiments
extension
human
medicine

military
nutrition
professional
public

seven
specialized
statistics

Y G O L O N I R C O D N E E X L K X B Z U E
S I A K A J B L M S F T K U G A U K U H U N
K P D K L R P N T T A J K Q Y N H E S V F I
O M E Q H S U A K C I L N I O O Y S I B R C
Z N Q C K U T T I R E X P E R I M E N T S I
Y J O S I I M N L Y H U W D M S B T E P B D
O T S I S A U A R U U L F C S S J U S D V E
C C Y T T M L A N H C K I D E E Z V S G M M
U W I W M I T I Q R I I K R V F A K E D M P
Z C T O B I R Y Z U X B R S E O F N S O K E
S D C X L G C T F E G N N G N R P U B L I C
I W Y I Q A Z K U E D D V U A P O L U L H N
B J M O S I A H P N V J A K O W N Z W E I U
D Q Q H V I L L V H A P V X L Q E S M C X G
Y A Y H R L Q H R W N O I S N E T X E O D N

ACTIVITY

6

AQUACULTURIST • FISHERIES SCIENTIST

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters

Aquaculturist

Fisheries Scientist

DIRECTIONS

Complete each sentence with a one-word answer using the information from the posters.

- _____ 1. Fisheries scientists are concerned with effective management, use, and _____ of aquatic plants and animals.
- _____ 2. Aquaculturists raise a variety of _____ plants and animals with the goal of producing food or stocking bodies of water.
- _____ 3. The first job of many aquaculturists is stocking _____ ponds.
- _____ 4. Aquaculturists who become managers are charged to supervise workers, purchase feed and equipment, and plan _____.
- _____ 5. Fisheries scientists use their knowledge to protect and enhance recreational, _____, and aquacultural fisheries resources.
- _____ 6. Large operations are often _____ integrated and have their own feed mills and processing plants.
- _____ 7. Fisheries scientists are often employed as federal _____.
- _____ 8. Aquaculturists often work for governments or in _____ research.
- _____ 9. Fisheries scientists should earn a _____ degree.
- _____ 10. Aquaculture is a type of _____.
- _____ 11. Feed companies may hire an aquaculturist to _____ products to fish farmers.
- _____ 12. Entry level aquaculturists are normally required to complete a high school _____.

ACTIVITY

6

AQUACULTURIST • FISHERIES SCIENTIST

- _____ 13. Aquaculturist managers often have college degrees and understand _____ quality, nutrition, business, and economics.
- _____ 14. High school students aspiring to become aquaculturists should take courses in repair and maintenance of machinery and engines, _____, construction, and other shop classes.
- _____ 15. Some fisheries scientists work as _____ specialists.

ACTIVITY

7

MARINE SCIENTIST • HYDROLOGIST

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
 - Posters
- Marine Scientist*
Hydrologist

DIRECTIONS

Fill in the blank with the correct term from the word bank. Find the word within the word search.

- _____ 1. Hydrologists concerned with water supplies manage _____ and ground water to avoid problems.
- _____ 2. Hydrologists assess how land use affects water _____.
- _____ 3. A few marine scientists conduct environmental studies for the _____ industry.
- _____ 4. Hydrologists working on water quality problems deal with the chemical, physical, biological, and _____ properties of water.
- _____ 5. New opportunities are available for marine scientists in bioengineering, _____, and conservation biology.
- _____ 6. A marine scientist needs a keen interest in conservation and _____ and marine resources.
- _____ 7. State agencies and _____ associations dealing with natural resources also employ hydrologists.
- _____ 8. Hydrologists help assess and _____ our water supplies and water quality.
- _____ 9. Marine scientists address problems and issues facing marine _____.
- _____ 10. The _____ agencies which manage our natural resources all hire hydrologists.
- _____ 11. Marine scientists _____ gather data in the field or laboratory.
- _____ 12. Marine scientists are often called upon to help solve problems of great _____ or political importance.
- _____ 13. Hydrologists appreciate natural _____ and enjoy working with people.
- _____ 14. Marine scientists should have a keen interest in _____ and coastal/marine resources.
- _____ 15. Many hydrologists work as private consultants and are concerned with _____ production.

ACTIVITY

7

MARINE SCIENTIST • HYDROLOGIST

Word Bank

aquaculture
coastal
conservation
economic

federal
life
petrochemical
protect

quality
radiological
resources
surface

sustainable
systematically
watershed

K M S X G H S W Q N H R L L S K Q V E S E L
E Z D C K L G F S X O C E S A P H R G C T A
A Z S I Z R Z S P B T I Y S Y R U J O L C C
X C O D E I Y W I X B S T F O T E N L Y E I
L A C I M E H C O R T E P A L U O D T L T G
W L O S U R F A C E E F K U V M R I E B O O
A U B V C C F J M S R M C W I R L C O F R L
T K U X Y F V A S C E A Y C K A E U E S P O
E O I H B I T N D F U D Z U U Q T S J S A I
R Y H U U I Y P D Q H V U Q E K Y L N Q C D
S B R M C K A N A S I L W F K L Q E V O C A
H A L A T S A O C U W S O K O J I O R D C R
E N L Q I Y S U S T A I N A B L E F H A E R
D L O C S F V B T J Q C M C E N K X E A I E
Y L I Y X K A J M R N D M T L G T H T P E D

ACTIVITY

8

BIOCHEMIST • BIOLOGICAL ENGINEER • SCIENCE WRITER

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters

Biochemist

Biological Engineer

Science Writer

DIRECTIONS

Use the clues and information in the posters to complete the crossword puzzle.

Across

1. Where science writers can work writing science and technology stories, environmental stories, or business stories about science-based corporations
7. Some biochemists will ultimately end up working in research and _____.
11. Biological engineers study this kind of organisms
12. Conducted in a laboratory; at the heart of what most biochemists do
14. Where a biochemist works

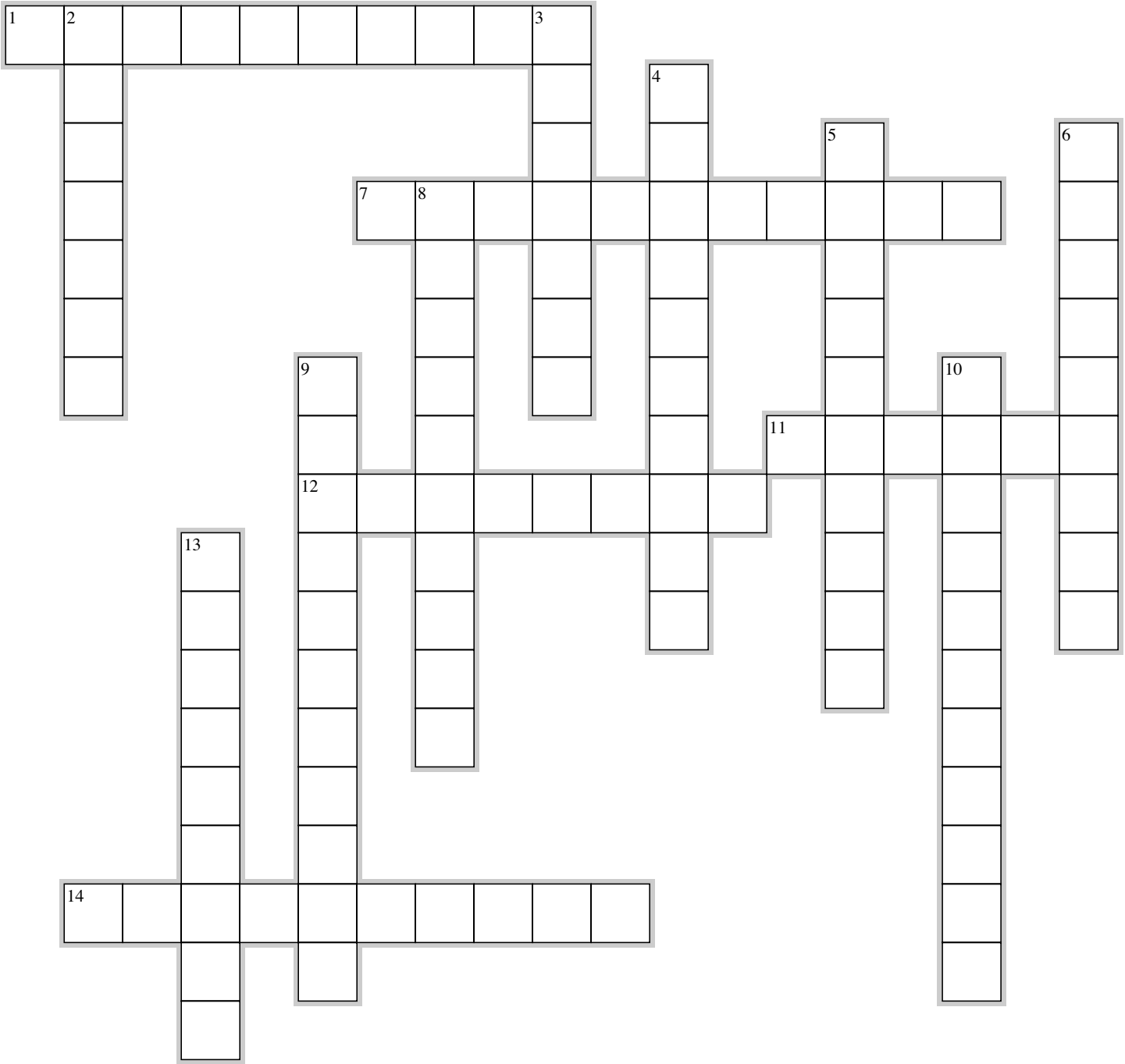
Down

2. A strong background in this is needed to be a science writer
3. Science writers describe this without using scientific terms
4. This type of engineering has the potential to be very different than traditional engineering disciplines
5. Some biochemists earn medical or _____ degrees then practice medicine.
6. Biochemists work to figure out how cells protect themselves from these
8. Science writers should be able to communicate with this
9. Knowledge collected by biochemists can be translated to products that benefit human health, consumers and what other industry
10. They explore the chemical events that cause biological phenomena in living organisms
13. An important area of biological engineering is the development of this type of natural resources for the use in energy applications

ACTIVITY

8

BIOCHEMIST • BIOLOGICAL ENGINEER • SCIENCE WRITER



ACTIVITY

9

BIOMETRICIAN • NANOTECHNOLOGIST

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters

Biometrician

Nanotechnologist

DIRECTIONS

Complete each sentence with a one-word answer using the information from the posters.

- _____ 1. Biometricians advise _____ who are planning experiments.
- _____ 2. Sometimes biometricians forecast _____ conditions of resources like forests or watersheds.
- _____ 3. Nanotechnologists enjoy learning new things, working with cutting-edge science, and developing _____ to society's problems.
- _____ 4. Nanotechnologists work in research and _____ in universities or industry.
- _____ 5. _____ particles are used to help solve a particular problem for nanotechnologists.
- _____ 6. The biometrician's _____ are important to quality control and assurance in research and operations management.
- _____ 7. Often biometricians work as part of a _____.
- _____ 8. A person should be intensely _____ and enjoy facing a challenge to be a nanotechnologist.
- _____ 9. Increasingly, researchers are studying the _____ effects of nano-sized particles to make sure these new materials are safe.
- _____ 10. Large environmental consulting firms want biometricians' skills in _____ and evaluation.
- _____ 11. Nanotechnologists must communicate with many different people to stay informed about this _____ field.
- _____ 12. Universities hire biometricians to support _____ researchers.
- _____ 13. Nanotechnologists usually _____ their own research topics.

ACTIVITY

9

BIOMETRICIAN • NANOTECHNOLOGIST

- _____ 14. Biometricians may conduct their own research to improve _____ methods or the understanding of subjects like crop development or climate change.
- _____ 15. Biometricians work for state agencies seeking staff _____ for research, planning, or information management.

ACTIVITY**10****CONSERVATION BIOLOGIST • RENEWABLE ENERGY SPECIALIST •
ENVIRONMENTAL SCIENTIST • WILDLIFE BIOLOGIST**

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters

*Conservation Biologist**Renewable Energy Specialist**Environmental Scientist**Wildlife Biologist***DIRECTIONS**

Use the clues and information in the posters to complete the crossword puzzle.

Across

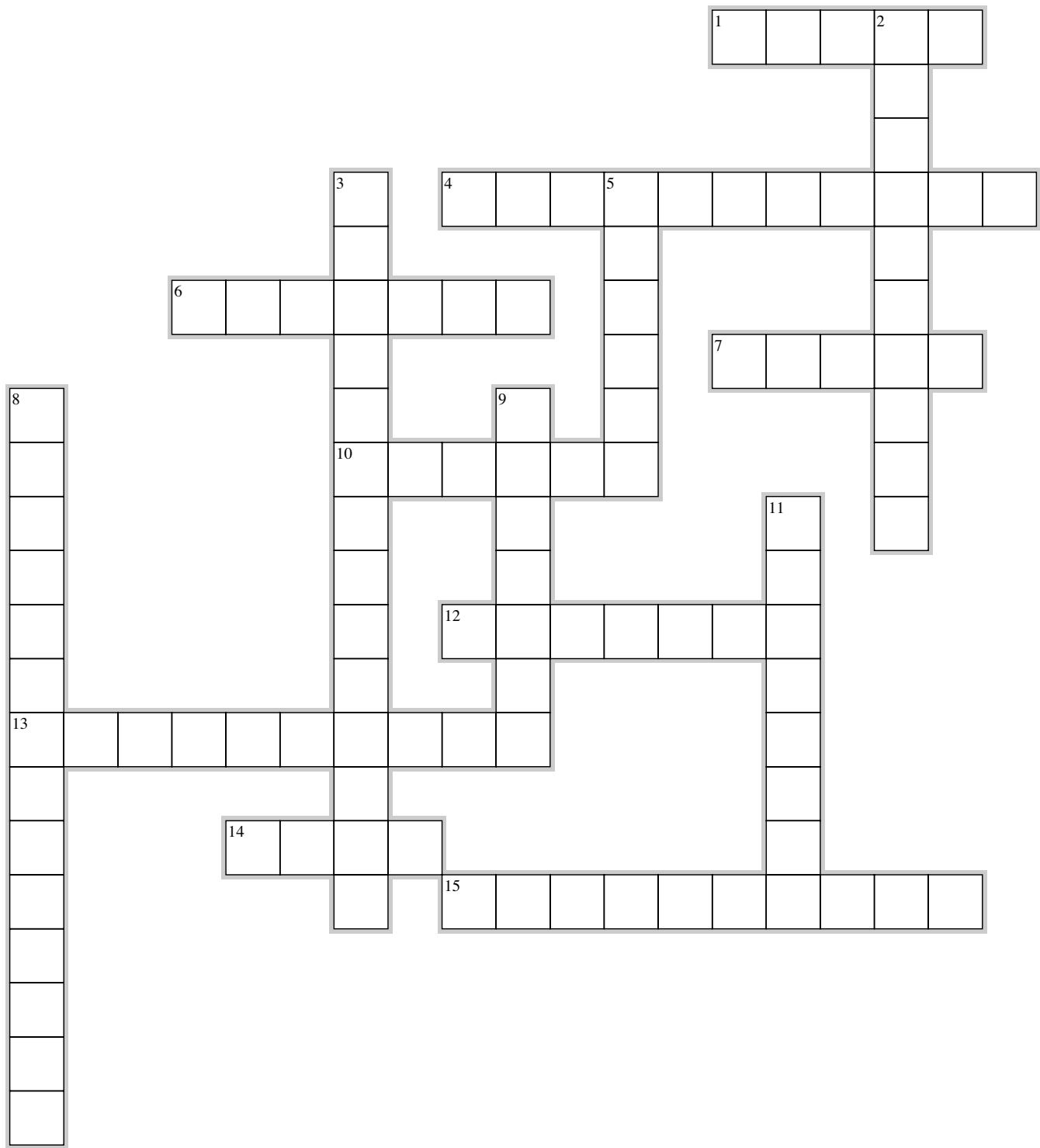
1. Environmental scientists find ways to protect air, _____, and land.
4. While wildlife biologists enjoy working outdoors with wildlife, much of their job involves _____ with people.
6. Many environmental scientists _____ the environment.
7. Corporations which discharge _____ in the air, water, or land also hire environmental scientists.
10. After the enactment of the National Environmental _____ Act of 1969, environmental and other consulting firms began employing more wildlife specialists to produce environmental impact statements and other planning documents.
12. Federal agencies like the Environmental Protection Agency and the _____ Resources Conservation Service hire environmental scientists.
13. Whole _____ are also protected and managed by conservation biologists.
14. Some conservation biologists work with captive animals in _____.
15. Conservation biologists study rare and _____ species.

Down

2. Conservation biology grew when people became more and more concerned about species _____.
3. Many parks hire wildlife biologists for wildlife _____.
5. A renewable energy specialist helps ensure that we can meet the world's _____ needs in the future.
8. Renewable energy specialists often act as _____ between divergent groups and bring groups together through networking.
9. Creating energy from the wind, _____ crops, agricultural residues, municipal wastes, or solar energy requires work from the renewable energy specialists.
11. _____ biologists do research that help us better manage our natural resources.

ACTIVITY
10

CONSERVATION BIOLOGIST • RENEWABLE ENERGY SPECIALIST •
ENVIRONMENTAL SCIENTIST • WILDLIFE BIOLOGIST



ACTIVITY

11

ECOLOGIST • NATURALIST • CLIMATOLOGIST

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters
Ecologist
Naturalist
Climatologist

DIRECTIONS

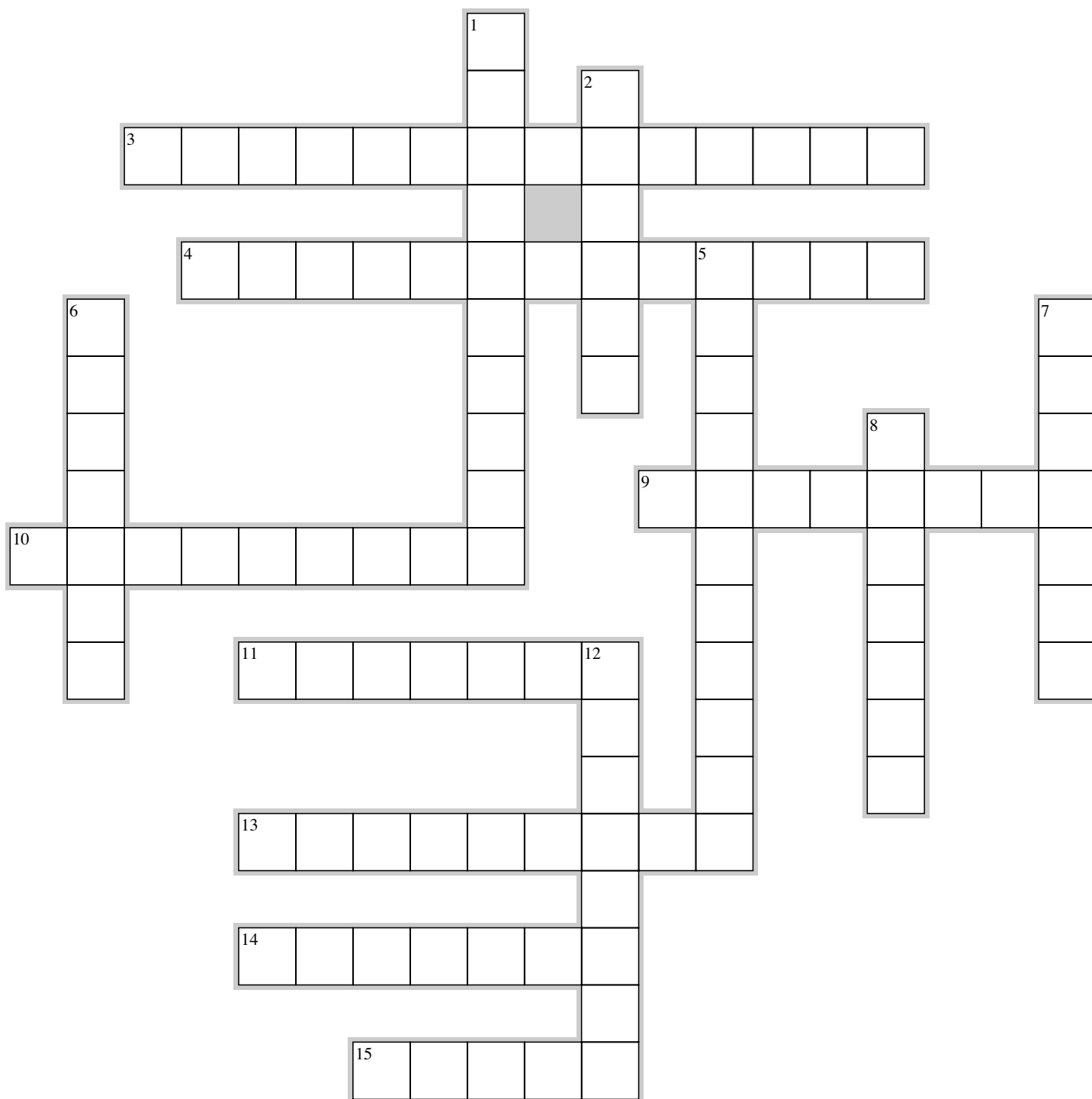
Use the clues and information in the posters to complete the crossword puzzle.

Across

3. Study climate change, climate variability, and the effects of climate on the biosphere
4. Naturalists should earn a degree in this type of science
9. As this increases in the environment, ecologists work becomes more important
10. Ecologists ask scientific questions about the relationships between the environment and what
11. The type of classrooms naturalists teach school groups in
13. Climatologists use these to predict the effect of weather or climate on the growth and development of grain, vegetables, fruit and other crops
14. Climatologists work for state and federal governments as this type of station network supervisors
15. Naturalists help people learn to live here without destroying the environment

Down

1. They ask scientific questions about the relationships between organisms and their environment
2. Naturalists teach but rarely in this type of classroom
5. Are scientists and skilled communicators
6. Ecologists study ways to protect and manage this kind of resources
7. A strong background in math and this is needed to be a climatologist
8. What climatologists study
12. Ecologists usually choose their own type of topics



ACTIVITY

12

ENTOMOLOGIST • NEMATOLOGIST

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
 - Posters
- Entomologist*
Nematologist

DIRECTIONS

Fill in the blank with the correct term from the word bank. Find the word within the word search.

1. An _____ is a broadly trained and educated professional in a discipline that touches almost every aspect of our daily lives.
2. Entomologists are needed _____ to help farmers and ranchers produce crops and livestock.
3. _____ are found everywhere: in soil from both poles to the tropics, in bodies of insects, and in humans and all domesticated and wild animals.
4. _____ live on ocean bottoms and forest floors.
5. Many nematologists who work with these roundworms are interested in plant and animal _____.
6. Entomologists help farmers and ranchers produce crops and livestock more efficiently by using sound _____ management.
7. Entomologists also help prevent the spread of serious _____ in plants and animals.
8. Nematologists may work as agricultural scientists concerned with crop pest _____.
9. Some nematologists specialize in basic research in _____ biology.
10. Entomologists help produce information about _____ species.
11. As an entomologist, your natural curiosity and enthusiasm will help solve some the world's _____ problems.
12. Some nematologists model systems for the study of _____.
13. Nematodes are found in the _____ from both poles to the tropics.
14. A major in _____ is the best preparation for someone wanting to become an entomologist.
15. A college degree in a biological science is good preparation for _____.

ACTIVITY

12

ENTOMOLOGIST • NEMATOLOGIST

Word Bank

agriculture
diseases
endangered
entomologist

entomology
genetics
management
molecular

nematodes
nematology
pest
roundworms

soil
toughest
worldwide

N S F R R I L C J S I N B V Y S O I L H W X
B R X I P X Q A W J Y J G G Y F X Y O Q Y I
G J T D B E U R P I F C O R O O F B L X T L
D E R E G N A D N E V L Z A B N M A E T S X
N A N P N I F Y I D O V I K Y N G E N N E I
E M X S E N M A G T S T U U I R S W T E H L
S V O G M Q N O A O S C L V I N O E O M G U
D S P R A K L M L E L B I C U R T N M E U T
C Q O Q T M E V P E J O U T L H O O O G O I
I E X H O N W N I U C L M D E G C T L A T E
R O U N D W O R M S T U W O C N O P O N J Q
W D O B E X E H N U Z I L A T W E W G A Y L
X C H F S D X S R T D L H A Q N X G I M J S
J E K F E C C E D E S V Z Q R X E C S W A S
S E S A E S I D I Q Q J A U S X K S T X V J

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters
Horticulturist
Botanist

DIRECTIONS

Complete each sentence with a one-word answer using the information from the posters.

- _____ 1. The Latin words _____ and cultura together form horticulture.
- _____ 2. Today horticulture is more than garden plant _____.
- _____ 3. Horticulturists make plants more _____ to different climates.
- _____ 4. A botanist studies _____ and giant trees.
- _____ 5. Botanists may study the effects of _____ on plants and work toward environmental protection.
- _____ 6. Some botanists produce entire plants from single cells with a technique called tissue _____.
- _____ 7. Other botanists use _____ to develop new or improved plants.
- _____ 8. Botanists who like to be outdoors may be plant _____.
- _____ 9. Horticulturists work in a variety of fields some of which are plant _____, plant breeding, plant physiology, and plant biochemistry.
- _____ 10. Other fields that horticulturists work are crop production, _____ engineering, and landscape design.
- _____ 11. Horticulturists want to improve crop yield, quality, _____ value, and resistance to insects, diseases, and environmental stresses.
- _____ 12. Some botanists work in _____ resources laboratories.
- _____ 13. Some horticulturists work as tissue culture specialists with fruit, vegetables, _____, and turf.

- _____ 14. There are botanists that work in botanical gardens, _____, herbariums, and zoos.
- _____ 15. To be a botanist, a bachelor's degree in _____ is needed.
- _____ 16. Educational institutions hire botanists as _____ and researchers.
- _____ 17. Horticulturists can work in storage, processing and transit of fruits, berries, nuts, vegetables, flowers, trees, shrubs and _____.
- _____ 18. Horticulturists can be found in offices, laboratories, _____, and out in production or research fields.
- _____ 19. Horticulturists can work in industry, government, or educational _____.
- _____ 20. Many different areas complement _____ science and horticulture coursework for college.

ACTIVITY**14****FLORIST • TURF SCIENTIST • VITICULTURIST**

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters
 - Florist*
 - Turf Scientist*
 - Viticulturist*

DIRECTIONS

Use the clues and information in the posters to complete the crossword puzzle.

Across

1. Viticulturists work in all 50 states in _____.
3. As turf scientists advance in their careers, they become coordinators, managers, or assistant or _____ managers in corporations.
6. Supermarkets, wholesale florists, large hotels, and _____ also hire florists.
9. For a florist a typical business is _____.
11. A _____ may find himself or herself working in vineyard pruning, trellising, canopy management, and irrigation.
13. A florist can design _____ arrangements.
15. Interest in _____ production has increased tremendously in the United States.
16. _____ scientists must be skilled in science, business, and personnel management.
18. Many florists start their _____ small businesses.
19. Viticulturists may also work in _____ fertilization and mineral nutrition.

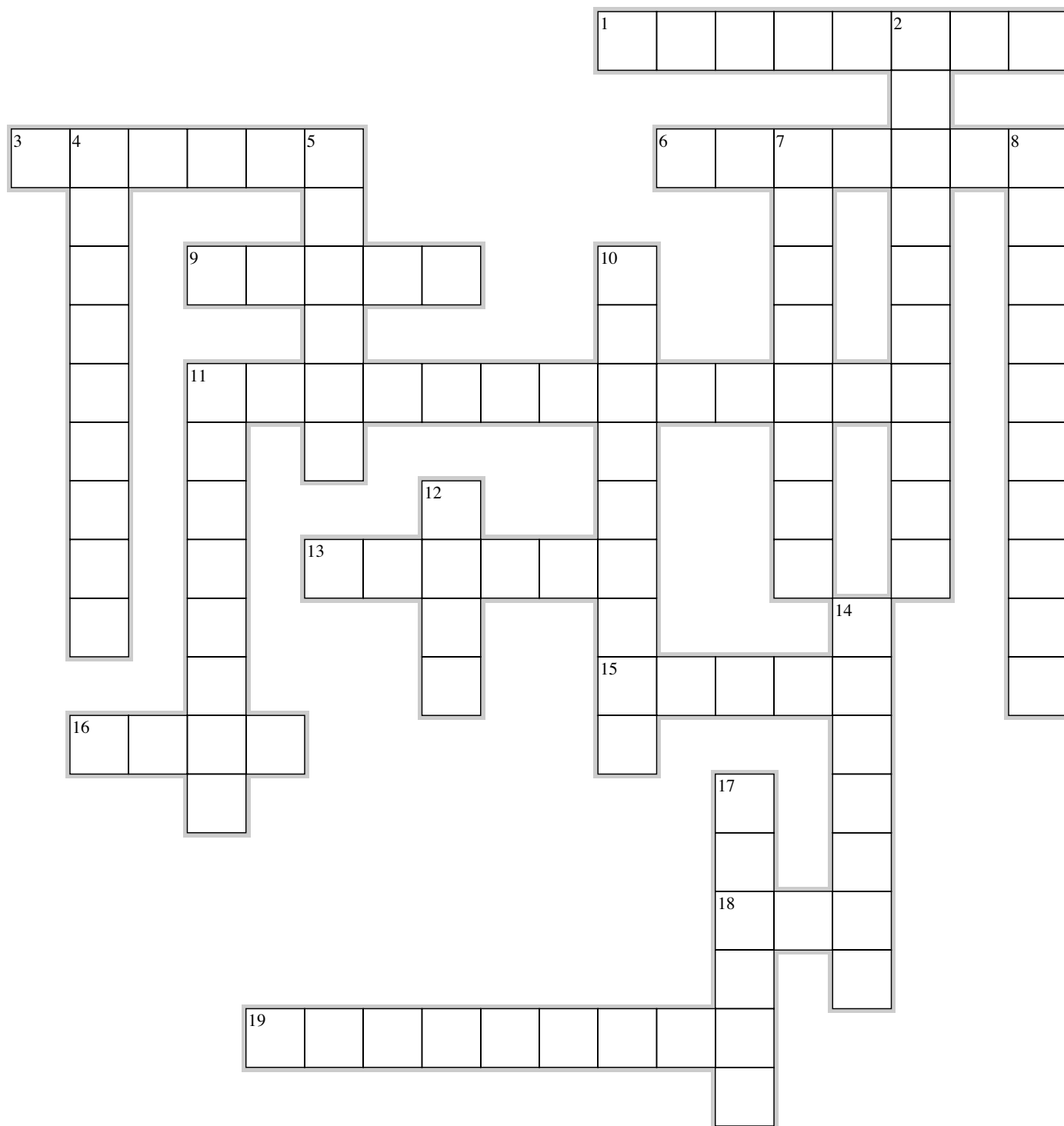
Down

2. Turf scientists help maintain turf, as well as operate computer-controlled _____ equipment.
4. Some viticulturists work with pest management and disease control through _____ selection.
5. With people becoming more and more concerned about the environment and _____, viticulturists today often work with government regulations.
7. Turf scientists can be golf course superintendents, turf managers for sports _____, park managers, and grounds managers for corporate headquarters.
8. Turf scientists in advanced positions rely on their _____ expertise to make good purchasing decisions.
10. Courses that should be taken are turf management and plant _____.
11. Opportunities are expanding for viticulturists in research and development as the industry improves _____ management methods.
12. One of the many first jobs a turf scientist can have is working for a _____ course.
14. Florists who become managers conduct sales interviews to secure _____, commercial, and special events accounts.
17. A _____ shop employee processes incoming flowers.

ACTIVITY

14

FLORIST • TURF SCIENTIST • VITICULTURIST



EclipseCrossword.com

ACTIVITY**15****FOOD PROCESS ENGINEER • FOOD SAFETY SPECIALIST**

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters

Food Process Engineer
Food Safety Specialist

DIRECTIONS

Fill in the blank with the correct term from the word bank. Find the word within the word search.

- _____ 1. Food _____ engineers (FPEs) research and develop new and existing products and processes.
- _____ 2. Food _____ specialists preserve our food supply by assuring that it is wholesome, sound, and safe.
- _____ 3. FPEs also design processing, handling, and _____ equipment.
- _____ 4. When FPEs are hired as project engineers, they supervise the design, _____, installation, and start-up of processes.
- _____ 5. Food safety specialists use their knowledge of food _____ principles, food science, bacteriology, microbiology and HACCP theory.
- _____ 6. HACCP stands for Hazard Analysis _____ Control Point.
- _____ 7. Food safety specialists understand and apply _____ governing food protection.
- _____ 8. Food process engineers work in food, chemical, _____, and pharmaceutical industries.
- _____ 9. FPEs work with processors, equipment suppliers, design and consulting firms, and _____ suppliers.
- _____ 10. Food safety specialists are good _____ who can think on their feet.
- _____ 11. Food safety specialists work for food services, hotels, resorts, _____, and government agencies.
- _____ 12. _____ and investigations on food products are conducted by food safety specialists.
- _____ 13. To be a food safety specialist a bachelor's degree in _____ science should be earned.
- _____ 14. FPE's typically enjoy solving _____.
- _____ 15. To be a successful food process engineer _____ and science should be enjoyable.

ACTIVITY

15

FOOD PROCESS ENGINEER • FOOD SAFETY SPECIALIST

Word Bank

biochemical
construction
critical
food

ingredient
inspections
math
observers

packaging
problems
process
protection

regulations
restaurants
safety

N O P C S O O E S R C Q O T Y G P N W C S W
R O B O H S Z B I N A U N G G A A Q S K T H
X R I N K C E P S E O E H O K U C Q E W N H
M U P S Q H G C U E I I B P X B K S C Z A H
A N R T M A T H O D R I T D M U A M N F R F
S N L R D J P C E R O V O A M L G J E B U U
F E Q U S W R R A C P O E W L X I Z D Q A O
G N Z C K I G J H Q F M L R S U N Y Q X T K
Q Q U T T N F E Z L V S T M S A G T T B S R
H J G I I S M E L B O R P H H J M E B N E B
K N C O R I S N O I T C E P S N I F R H R B
X A C N C P R O T E C T I O N S A A O T G B
L P G A Y R Y D X B E O Q J E Y K S D Q I G
A A L J U R Q E O Y C A P N X L A I J P H S
T G S O H U D M N O P V G Z L C I O V B H G

ACTIVITY**16****FOOD SCIENTIST • NUTRITIONIST/DIETITIAN**

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters

*Food Scientist**Nutritionist/Dietitian***DIRECTIONS**

Complete each sentence with a one-word answer using the information from the posters.

- _____ 1. Food scientists preserve our food supply by assuring its _____, color, texture, nutritional quality, and safety.
- _____ 2. Food scientists use their knowledge of chemistry, biochemistry, microbiology, and engineering to convert grain, livestock, fruit, and vegetables into new food _____.
- _____ 3. Nutritionists/_____ help people look and feel well by making the connection between food, nutrition, and health.
- _____ 4. A nutritionist can be a healthcare worker, researcher, manager or _____.
- _____ 5. Dietitians are part of the _____ team with doctors, nurses, or therapists to speed patients' recoveries.
- _____ 6. Food scientists work as production _____, quality assurance specialists, product developers, and managers of processing plants.
- _____ 7. Some nutritionists/dietitians counsel families, the elderly, _____ women, children and the disabled.
- _____ 8. A nutritionist/dietitian is responsible for _____ nutrition therapy for disease conditions.
- _____ 9. _____ foods or diet recommendations are found through experiments by nutritionists/dietitians.
- _____ 10. A food scientist conducts food research and acts as a trouble-shooter in solving _____.
- _____ 11. Food _____, researchers and laboratory workers are a few jobs that food scientists do.

- _____ 12. Other food scientists develop government _____ to safeguard our food.
- _____ 13. Nutritionists/dietitians can work in healthcare institutions, schools, _____, restaurants, daycare centers, health and recreation clubs, government agencies, and food and pharmaceutical companies.
- _____ 14. To become a registered dietitian, an undergraduate American Dietetic Association accredited _____ program and supervised practical experience, then pass the Registration Examination for Dietitians.
- _____ 15. Food scientists need a bachelor's degree in _____ science.

ACTIVITY

17

LOGGING ENGINEER • FORESTER • WOOD SCIENTIST

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters

Logging Engineer

Forester

Wood Scientist

DIRECTIONS

Fill in the blank with the correct term from the word bank. Find the word within the word search.

- Logging engineers help design _____ transportation and harvesting systems.
- Foresters may spend one day in the _____ and the next in the field.
- Wood scientists and technologists expertly convert _____ to wood products.
- Logging engineers also supervise timber harvests and ensure protection of soil, water, and other natural resources during _____.
- Logging engineers work with people, highly _____ machines and computers, and natural resources.
- Foresters must be highly trained technically, but they must also be good _____.
- As _____ of forest resources, foresters must be able to convince others that forests are vital to the welfare of humanity.
- Wood is a _____ resource.
- Wood scientists can work in manufacturing, marketing, technical service, and _____.
- Wood scientists and technologists in technical service positions make operations more _____ for the chemical companies, machinery manufacturers, and wood products manufacturers.
- Some foresters are private _____ who advise landowners on the multiple-use management of their timberlands.
- A logging engineer needs to be a problem _____.
- A logging engineer also needs to have an interest in _____ resources.
- Foresters have long-range _____ on environmental issues.
- Wood scientists need a bachelor's degree in wood science and _____.

ACTIVITY

17

LOGGING ENGINEER • FORESTER • WOOD SCIENTIST

Word Bank

communicators
consultants
efficient
laboratory

logging
natural
renewable
research

solver
stewards
technical
technology

timber
views
wood

R K B U C I J E I W A Y W R K G J V V F R W
Y N G W V D S Q S J H R O H E F N F I E N Y
O U J J F N M O I T B O O G M N F I S E G U
E F F I C I E N T H N T D V Z E E E G O W D
P B F M G T I M B E R A G L S F A W L G P S
S D R A W E T S U Q P R T E D R O O A B O G
S R O T A C I N U M M O C L C T N N R B C L
R D T M M H D P W Y F B I H U H X E U L L E
N I B T R N M E X S Y A J C C S V G T M M E
S T J D C I Y T E O W L I E V L N R A O J P
W O W W G C I A H S A X T X O G N O N M F M
R T M O V A F N H O Q L F S V W X N C A E M
Q R R E J L B X O H J Z R G V Q N F K U U K
H F O L F I P F N T R M T J E Z J J C X V W
D F U L B S T J H C O K Z B T R Y E O Y F N

ACTIVITY**18****GENETICIST • MOLECULAR BIOLOGIST**

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters

*Geneticist**Molecular Biologist***DIRECTIONS**

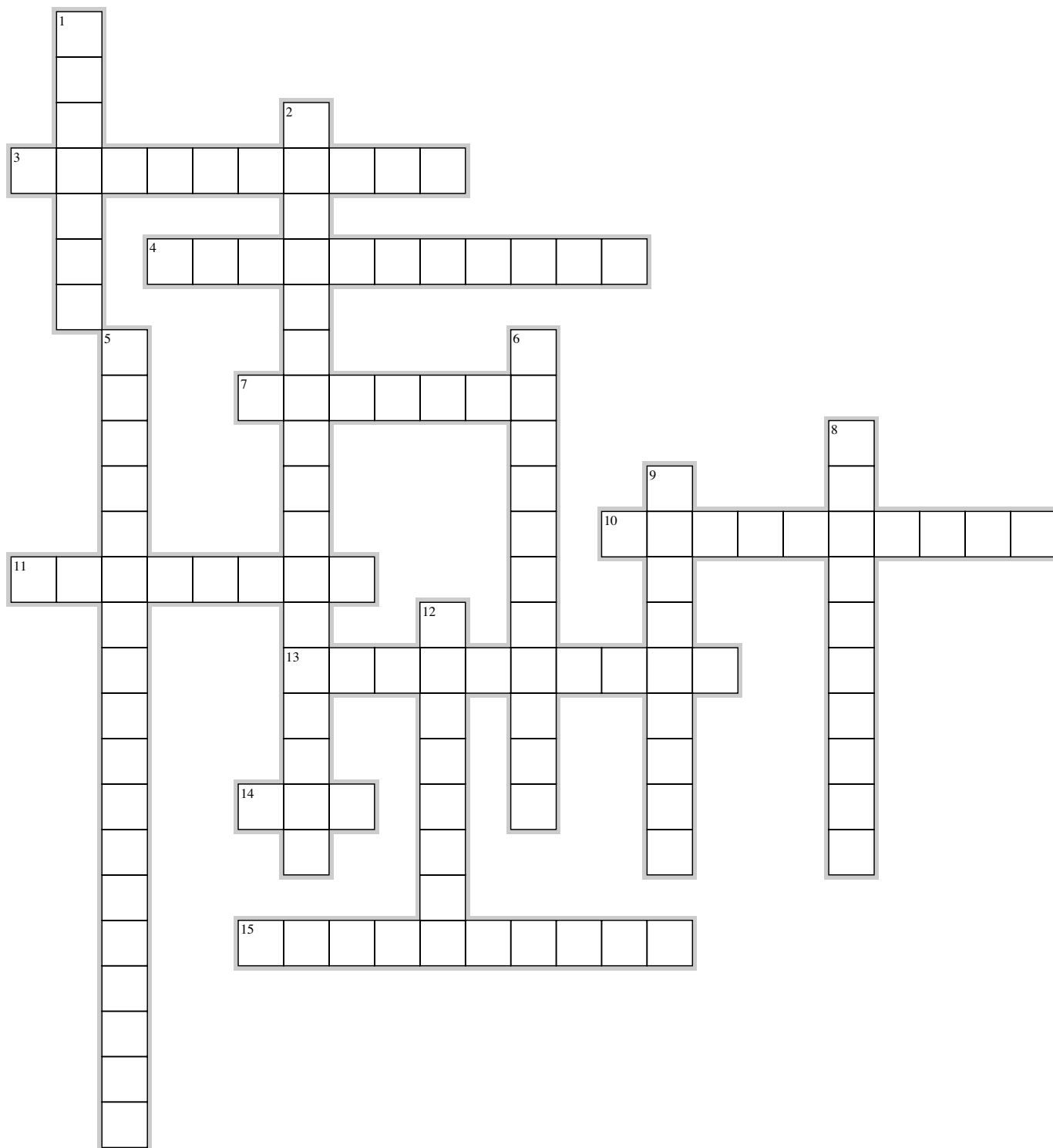
Use the clues and information in the posters to complete the crossword puzzle.

Across

3. Molecular geneticists create designer genes for production of these kinds of plants and animals
4. Geneticists also work to further _____ animals for improved well-being.
7. Molecular biologists often ask how genetic information in DNA can change and cause this
10. These can be detected and removed from the environment through the work of molecular biologists
11. Molecular biologists can be researchers, technicians and these
13. A geneticists' goal is to improve the _____ of production and the quality of food and fiber.
14. Genetic information encoded in molecules
15. Geneticists work with all species important for this kind of agricultural production

Down

1. Some employ geneticists to _____ breeds and strains of livestock, poultry, and fish
2. Geneticists use this when producing superior plants and animals
5. Following the flow of genes between and within populations to understand forces of evolution
6. Try to understand how genes work or where genes are
8. Genetics training is desirable for those who are planning to go into this field and health professions
9. Type of biologist that studies the phenomena of living things
12. Molecular biologists can develop new methods to do this and treat disease



ACTIVITY

19

PLANT GENETICIST • PLANT PATHOLOGIST • PLANT PHYSIOLOGIST

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters

Plant Geneticist

Plant Pathologist

Plant Physiologist

DIRECTIONS

Complete each sentence with a one-word answer using the information from the posters.

- _____ 1. Plant geneticists can work to understand how _____ work.
- _____ 2. Structural _____ are where genes are located.
- _____ 3. Plant geneticists can also follow the flow of genes between and within _____ to understand forces of evolution.
- _____ 4. Plant _____ deal with the symptoms, causes, damage, spread, and control of plant diseases.
- _____ 5. Plant pathologists study _____ processes and look for genetic, biological, chemical, or cultural controls for diseases of the plants we use for food and fiber.
- _____ 6. Some work as _____ plant pathologists with the Cooperative Extension Service.
- _____ 7. Plant physiologists study the _____, chemical, and biological functions of living plants.
- _____ 8. Plant physiologists often work as members of _____ teams.
- _____ 9. Plant physiologists study the effect that genes have on plant growth, _____, and seed yield.
- _____ 10. Plant physiologists also carry out experiments to reveal how plants respond to _____ and insect pests or to environmental stresses.
- _____ 11. Plant pathologists also work for companies that develop chemical and _____ control products.
- _____ 12. Some plant geneticists are plant _____.

- _____ 13. Private corporations hire plant geneticists to develop such things as new _____ or new varieties of fruit trees, vegetables, grains, and trees.
- _____ 14. Plant physiologists must be willing to _____ and must continue their education.
- _____ 15. A bachelor's degree in biological _____ is needed to be a plant pathologist.

ACTIVITY**20****TOXICOLOGIST • VIROLOGIST • BIOTECHNOLOGIST**

Name _____ Date _____ Period _____

STUDENT MATERIALS

- Pencil
- Posters
 - Toxicologist*
 - Virologist*
 - Biotechnologist*

DIRECTIONS

Use the clues and information in the posters to complete the crossword puzzle.

Across

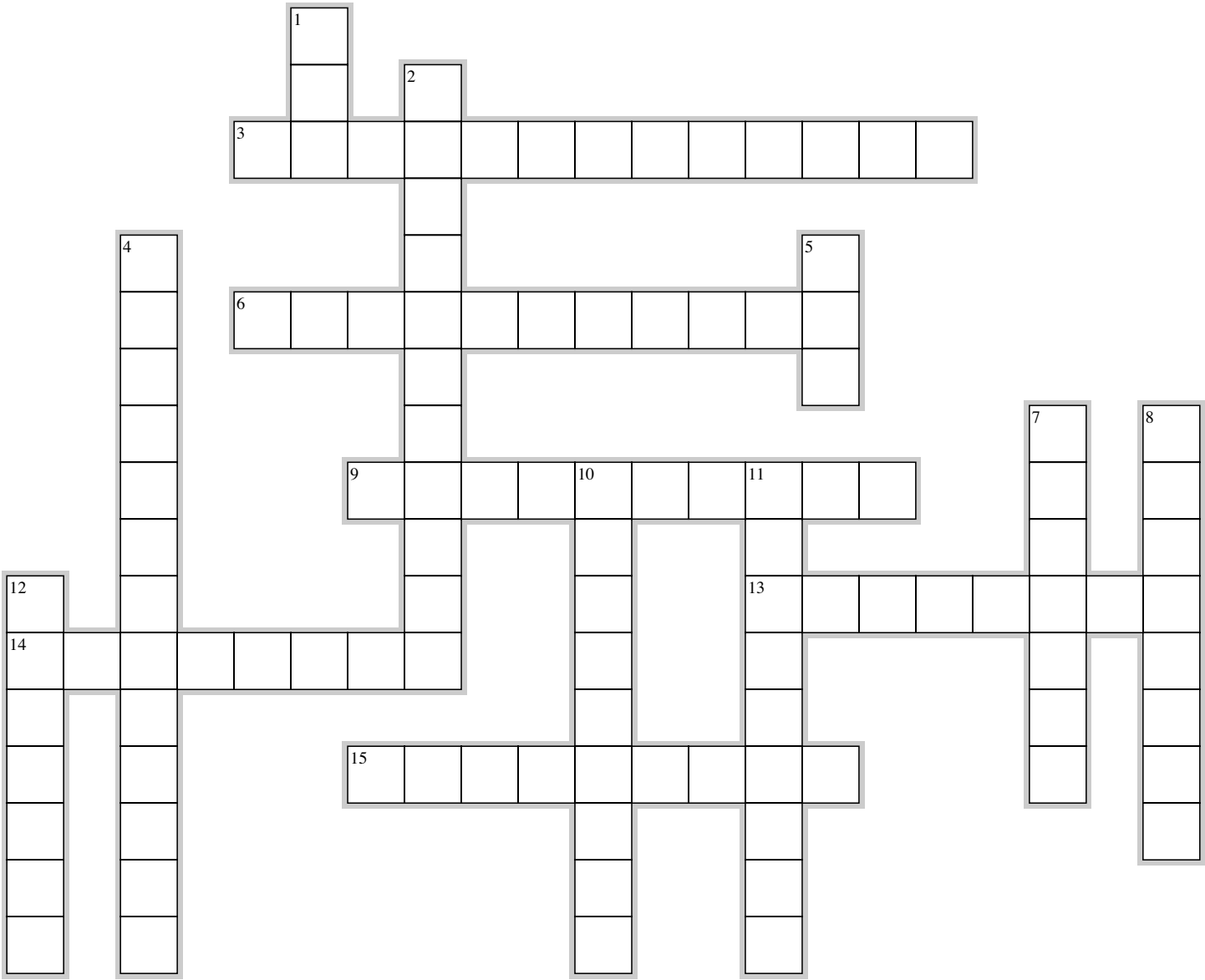
- _____ study the effects of potentially harmful chemicals on people, animals, and the environment.
- Virologists can discover new viruses or identify viruses causing _____ in plants or animals.
- A biotechnologist understands _____ processes and may use that knowledge to diagnose or treat a disease.
- Toxicologists use their knowledge to devise strategies to reduce or control _____ to these chemicals.
- Biotechnologists can be researchers, technicians, or _____.
- Virologists can discover new viruses or identify viruses causing _____ in plants or animals.

Down

- A toxicologist needs at least _____ years of study beyond a bachelor's degree.
- _____ study the structure of viruses.
- _____ trained in toxicology work in animal health diagnostic laboratories.
- Biotechnologists use a variety of ways to change the genetic information in _____.
- Virologists ask how _____ interact with cells.
- Other biotechnologists look for new, individualized treatments for gene-based _____ of crops or livestock.
- Epidemiologist is a type of virologist that monitors virus _____ throughout the world.
- Toxicologists employed by the government or industry make sure that _____ we use are safe and effective.
- Biotechnologists work to improve the processes for making biofuel such as _____.

ACTIVITY
20

TOXICOLOGIST • VIROLOGIST • BIOTECHNOLOGIST



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