BEE FACTS

(Reading: 110.14-2 a,b,c, 3, 4a, 11, 13c)

Without bees we wouldn't have any delicious honey to help sweeten our cookies and cakes.

1

First, honeybees use their tongues to slurp out the pollen and nectar from flowers.

2

They actually digest all of this, allowing the pollen and nectar to mix with the proteins and enzymes of their stomachs.

3

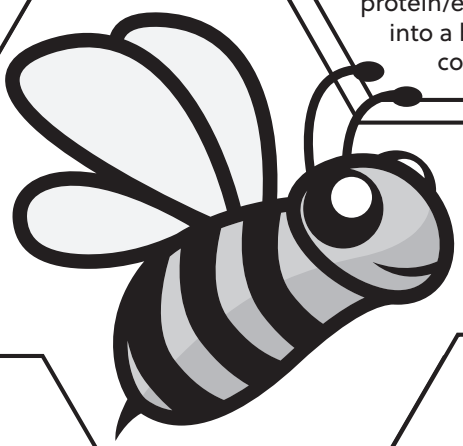
When the honey bees return to their hive, they regurgitate — a fancy word for throwing up this pollen/nectar/protein/enzyme mix into a beeswax comb.

4

The bees then flap their wings to help the mixture thicken before covering the combs with a wax cap.

5

After beekeepers take out these honeycombs, all they do is process and clean out the combs. The odd combination of flower parts and bee proteins has turned into honey!



Honeybees work diligently to harvest honey in a multi-step process that is both wonderful and a bit disgusting.

There is only one queen per colony. More than one queen will fight and only one will survive.

Did you know that a honeybee can fly around 15 mph?

Honeybees gather 10 pounds of nectar to make one pound of honey.

A foraging honeybee can carry 80% of their weight in pollen or nectar.

Honeybees use several dances in the hive to communicate the location of nectar and water to other bees.

One well known dance is called the waggle dance.

The queen honeybee lays between 1,000-3,000 eggs per day!

Match the fraction within the hive with its equivalent. Each answer is used only one time.

2/3
1
1/2
3/6
1/4
3/4
8/8

A) 2/4
B) 4/6
C) 2/8
D) 3/3
E) 1/2
F) 1
G) 6/8

Q) 257 + 235 =
H) 926 - 336 =
I) 852 - 510=
J) 694 + 236=
K) 5 x 7 =
L) 8 x 2 =
M) 507 - 194 =
N) 600 - 438=
O) 6 x 4 =
P) 745 + 136=

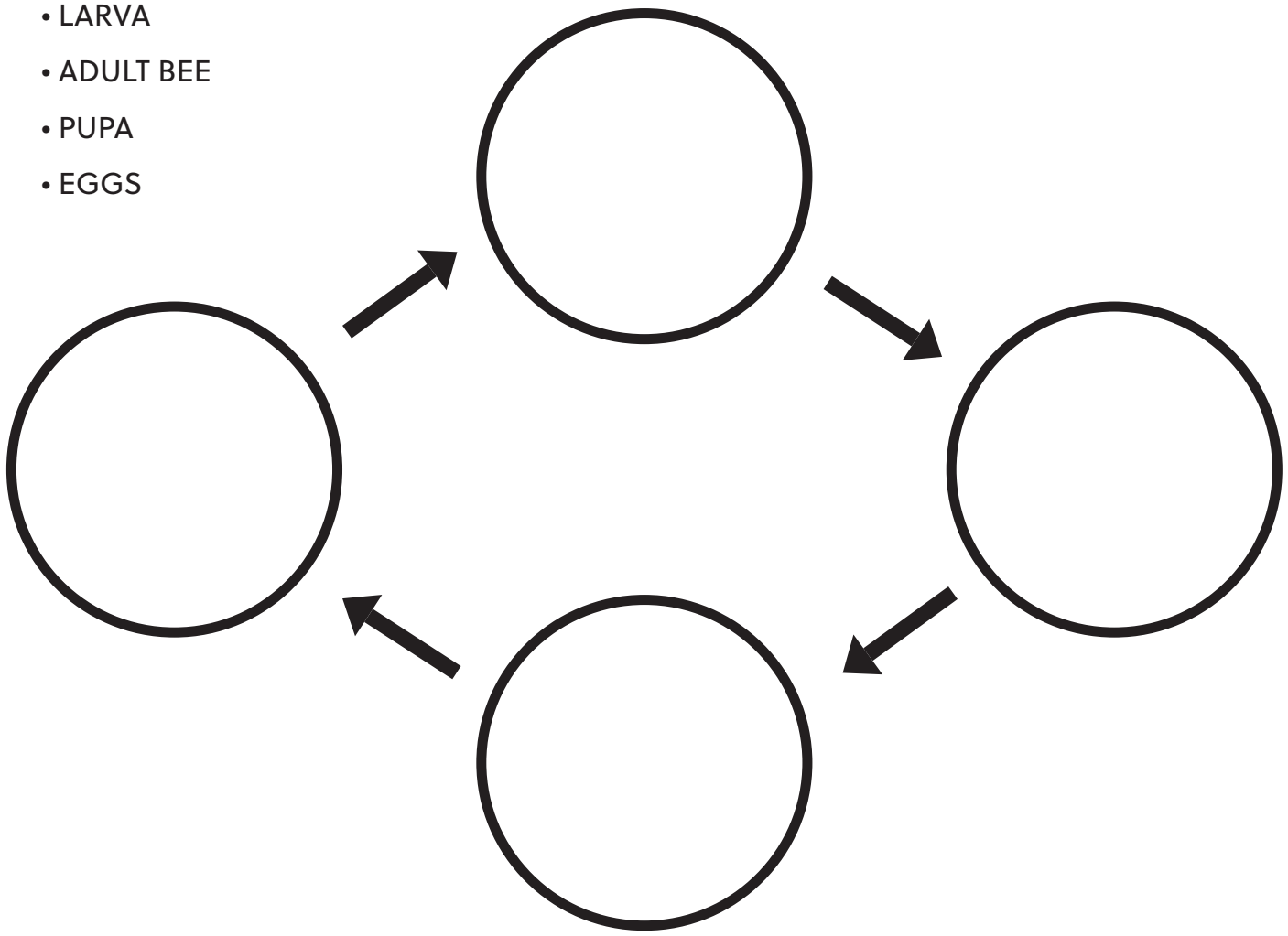
R) 584 - 254 =
S) 4 x 4=
T) 577 + 128=
U) 10 x 3 =

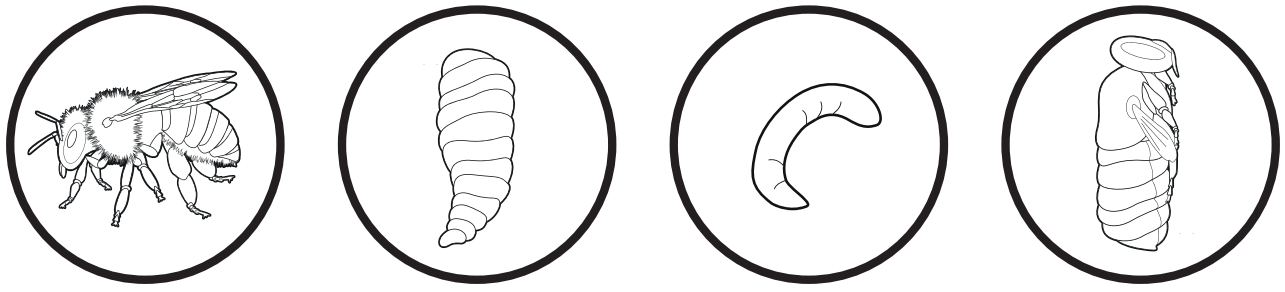
LIFE CYCLE OF A BEE

(Science: 112.14-3.2a, 3.2d, 3.10a, 3.10b)

Complete the chart below filling in the correct stages of the life cycle of a bee.
You can write the stages, then cut out pictures and glue them in the correct circle.

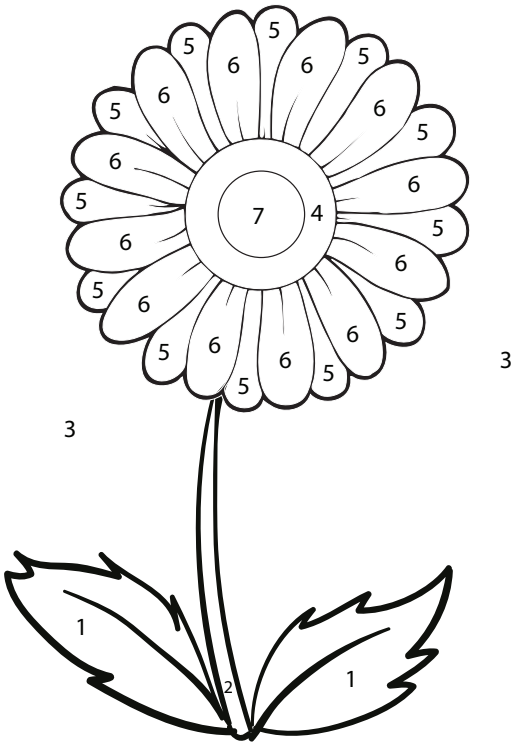
- LARVA
- ADULT BEE
- PUPA
- EGGS

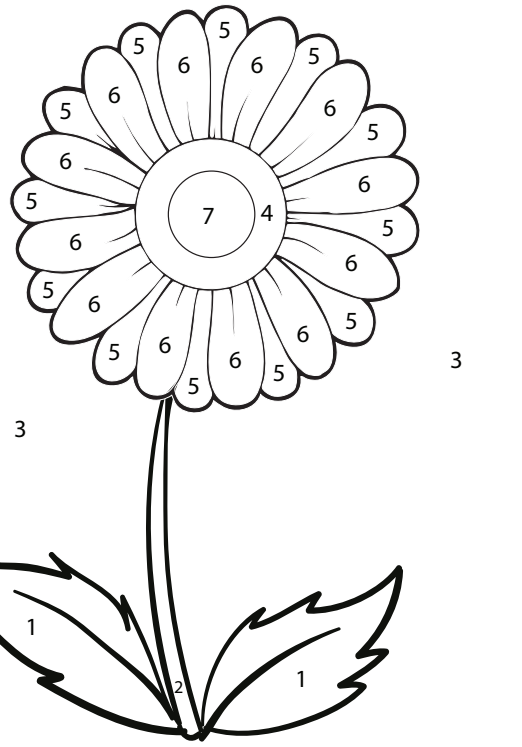




COLOR BY NUMBER

Color each flower by number to see the difference between how we see flowers and how bees see the same flowers.





HOW HUMANS SEE IT

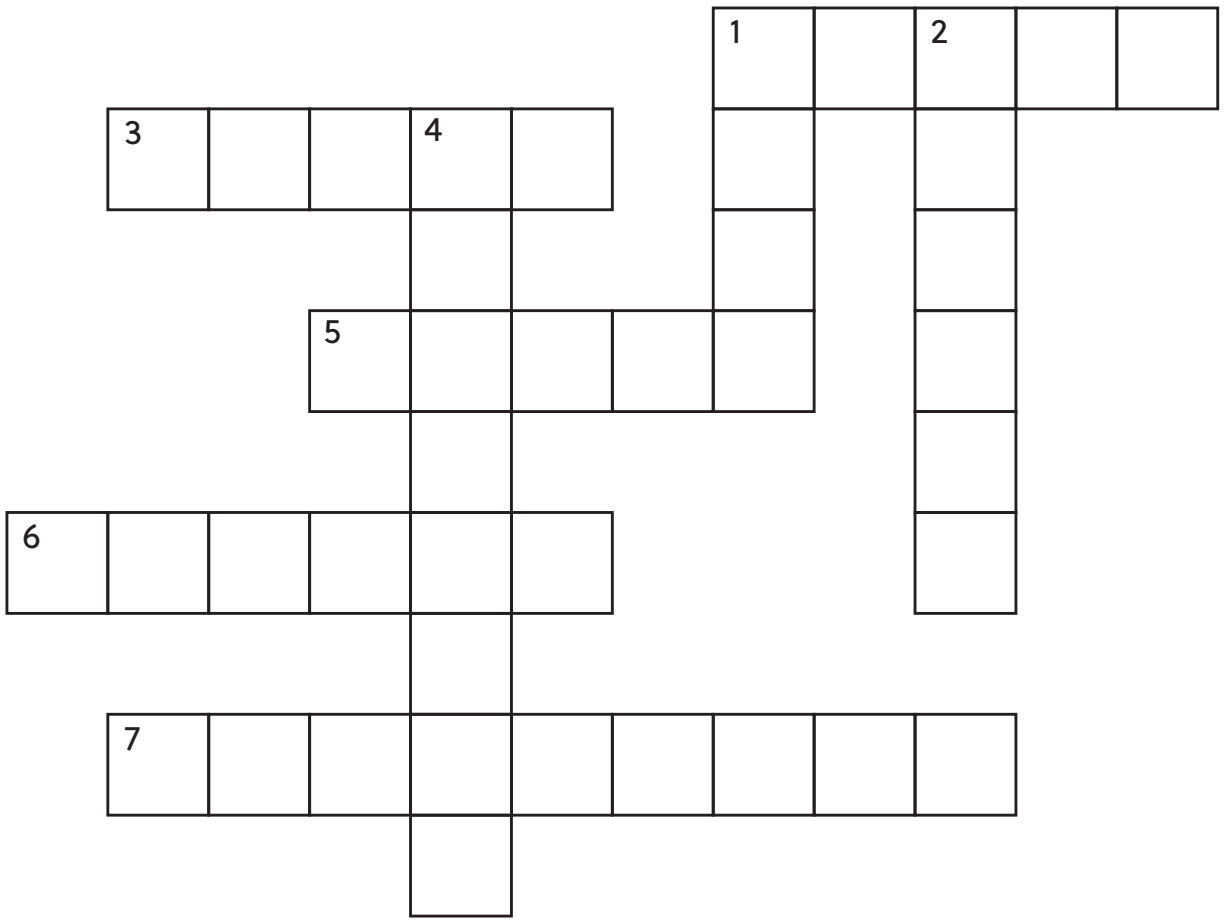
1. Green
2. Dark green
3. Blue
4. Brown
5. Red
6. Yellow
7. White

HOW BEES SEE IT

1. Light orange
2. Dark orange
3. White
4. White
5. Gray
6. White
7. Red

BEE CROSSWORD PUZZLE

Complete the activity.



ACROSS

1. A sweet fluid produced by bees from nectar
3. Dance bee will do as they get close to food
5. Male bee whose only function is to mate with the queen
6. Dust like cells of the anthers of flowers
7. Cells where honey is stored

DOWN

1. A structure for housing bees
2. Sweet liquid of flowers gathered by bees for making honey
4. Bee that attends to the queen, the babies, or larvae of the hive

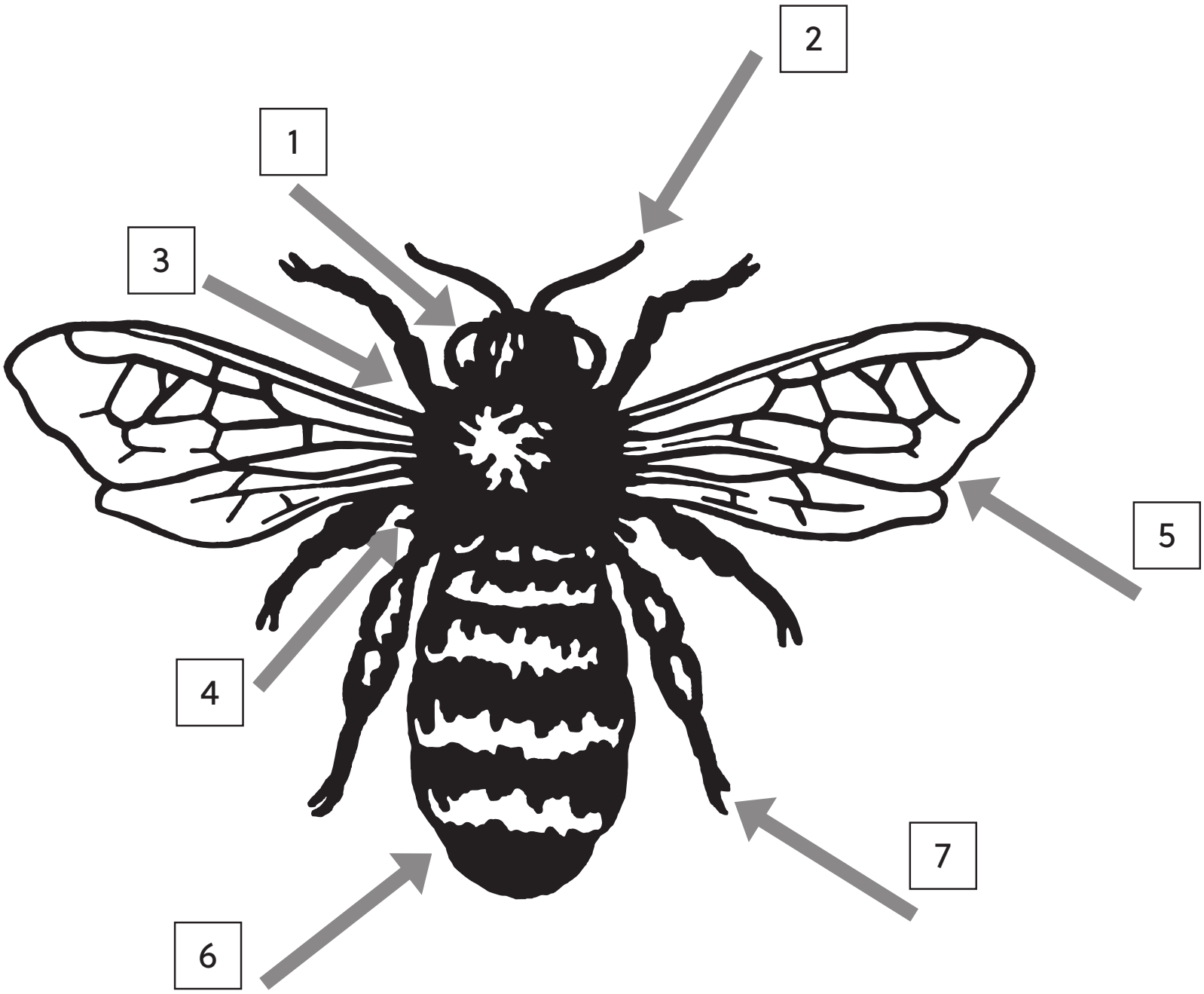
WORD BANK:

- Honey
- Honeycomb
- Pollen
- Drone
- Round
- Hive
- Nectar
- Nurse Bee

NAME THE PARTS OF A BEE

(Science: 112.14- 3.2a, 3.2d, 3.10a, 3.10b)

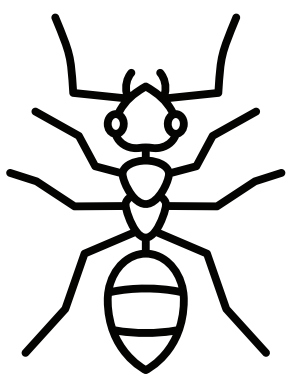
Write the correct body part next to the number and arrow pointing to the bee.

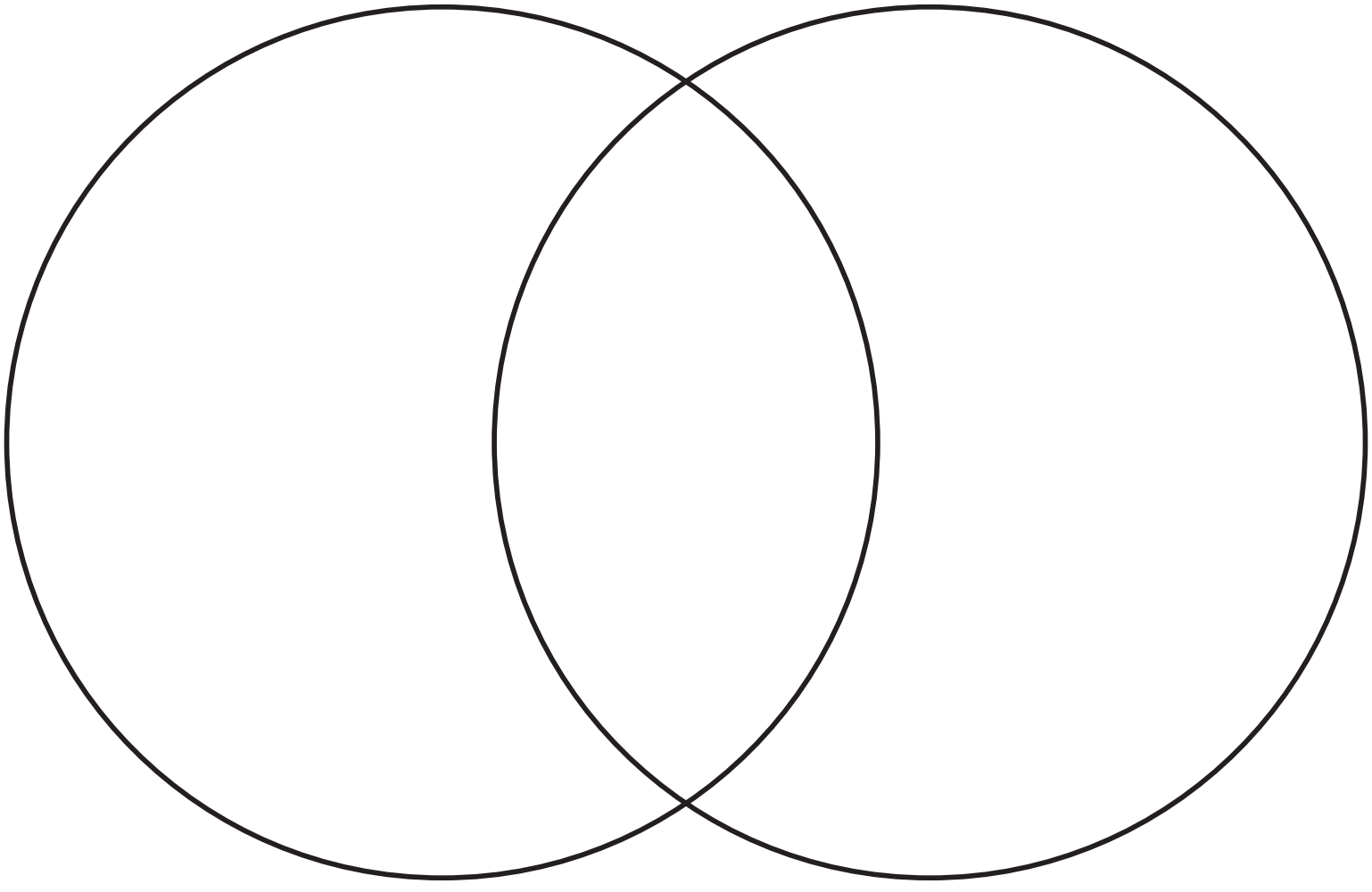


ANTENNA	**THORAX**
LEG	**ABDOMEN**
HEAD	**COMPOUND EYE**
WINGS	

ARE BEES INSECTS?

Ants are insects. Are bees? In the outside of each circle, write down how they are different.
Where the circles intersect, write down how they are the same.





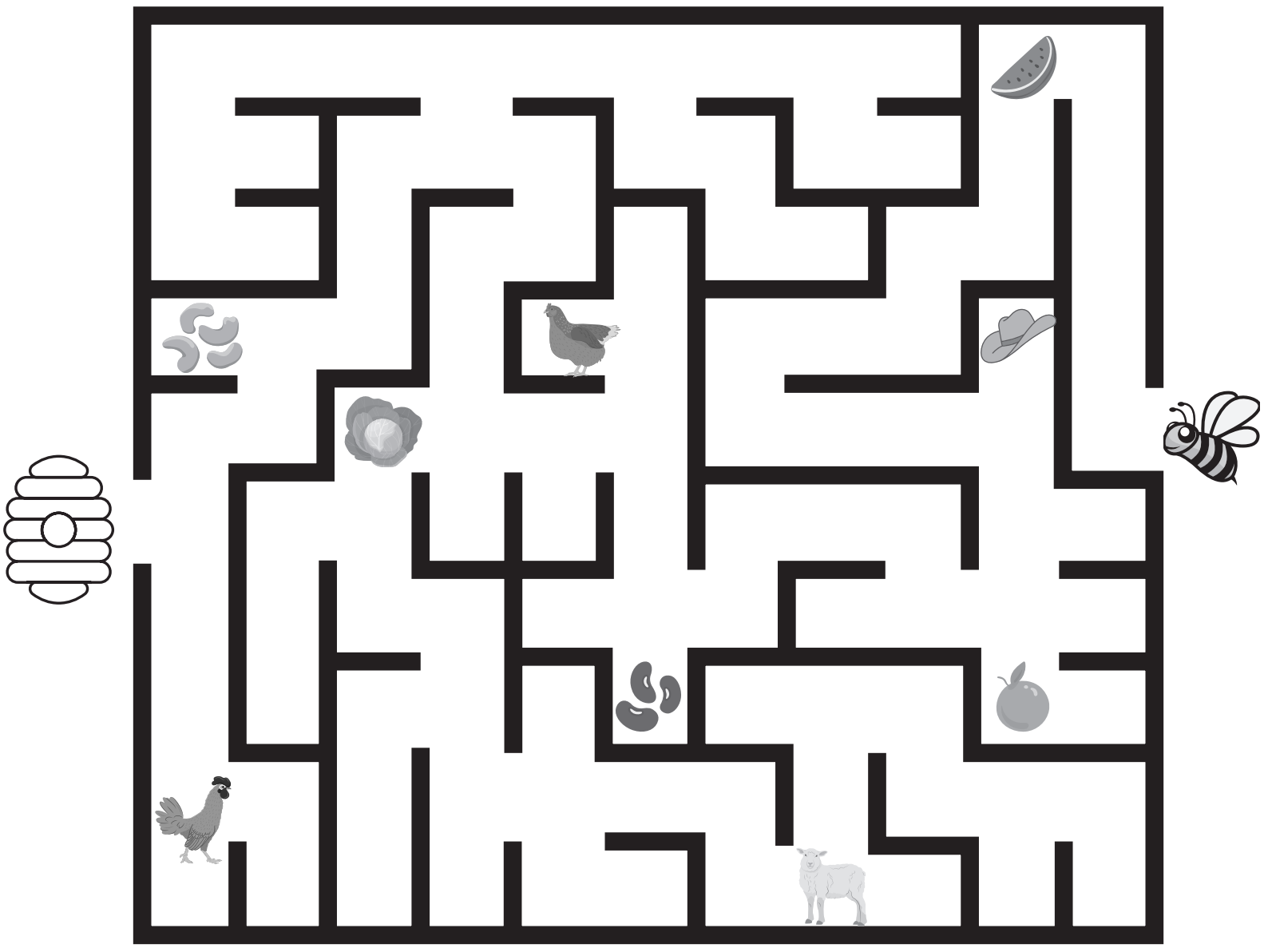
WHAT DO BEES POLLINATE?

(Science: 112.14 3.2a, 3.2d, 3.10a, 3.10b)

Do you like apples? How about kiwi and oranges? Are you nutty for cashews or almonds?
Do you love pumpkin pie and carving Jack-o-lanterns at Halloween?

If you answered "yes" to any of these questions, you can thank honeybees.
They are important pollinators of all of these plants and many more. In fact, bees help produce $15 billion in U.S. crops each year.

Help the bee pollinate the crops and return to its hive. BEE sure to avoid all other obstacles.



BEES WORD SCRAMBLE

AEDONBM

TNNNAEA

EBE

REPEKBEEE

COYLON

ENRDO

GEGS

EVIH

OYHEN

MCNOEOYHB

RAVAL

RTNEAC

NSUER

OLLEPN

PUAP

EQUEN

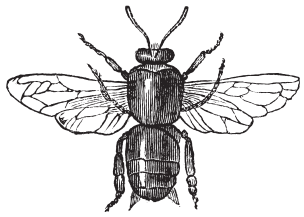
OAXHTR

WAGEGL CNEDA

WIGSN

WROREK EEB

HOW IS A COLONY ORGANIZED?



QUEEN

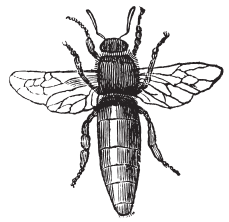
• There is only one queen bee per colony.

• Her primary function is laying eggs, as she is the only bee with fully-developed reproductive organs.

• She lays up to 3,000 eggs per day and lives for 2 to 3 years.

• Fertilized eggs become female, or worker bees.

• Unfertilized eggs become male, or drone bees.



WORKER

• Worker bees make up about 90% of the hive's populations, which can grow up to 80,000 bees in summer.

• Though all worker bees are female, they do not reproduce.

• Their many roles include: housekeeper, nursemaid, construction worker, grocer, undertaker and guard.

• At 21 days old, they get promoted to foragers, tasked with collecting their food: pollen and nectar.

DRONE

• Drone bees make up 0-10% of the colony.

• Their main role is to mate with queens from other colonies.

• Drone bees do not have stingers.

WORD SCRAMBLE ANSWERS

ABDOMEN
ANTENNA
BEE
BEEKEEPER
COLONY
DRONE
EGGS
HIVE
HONEY
HONEYCOMB
LARVA
NECTAR
NURSE
POLLEN
PUPA
QUEEN
THORAX
WAGGLE DANCE
WINGS
WORKER BEE

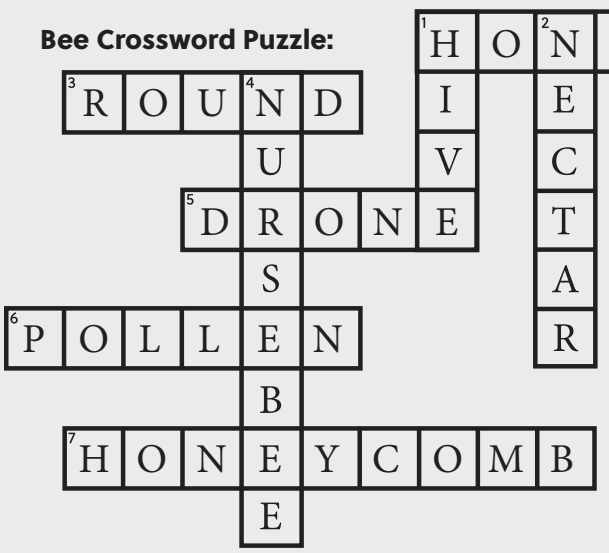
ANSWERS

Bee Math: A) 2/4 = 1/2, B) 4/6 = 2/3, C) 2/8 = 1/4, D) 3/3=1, E) 1/2 = 3/6, F) 1=8/8, G) 6/8 = 3/4, H) 590, I) 342, J) 930, K) 35, L) 16, M) 313, N) 162, O) 24, P) 881, Q) 492, R) 330, S) 16, T) 705, U) 30

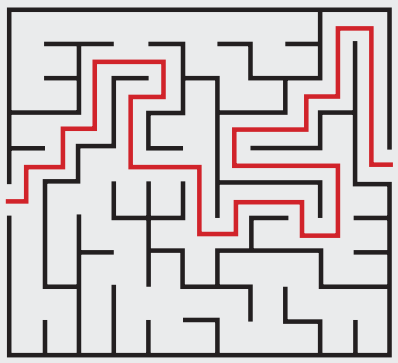
Life Cyle of a Bee: Egg, Larva, Pupa, Adult Bee

Parts of a Bee: 1. Compound eye, 2. Antenna, 3. Head, 4. Thorax, 5. Wings, 6. Abdomen, 7. Legs

Bee Crossword Puzzle:



What do Bees Pollinate:



CREATIVITY CONTEST

Designs must be kept within the black square outline and signed by a parent or guardian to qualify for participation in the Creativity Contest.

The Houston Livestock Show and Rodeo™ is a great Texas tradition. Since its beginning in 1932, the Show has entertained millions of fans with livestock competitions, horse shows, a world class carnival, commercial exhibits, and exciting rodeo action.

Use your favorite colors, design, patterns, shapes, textures and more to complete your own Rodeo Masterpiece. Entries will not be returned.

Winners will receive grounds passes to The Houston Livestock Show and Rodeo™. *PLEASE PRINT CLEARLY*

Students Name: _____ Grade Level: 3rd Grade
First Middle Last

School District: _____ Teachers Name: _____

School: _____ School Phone: _____

School Mailing Address: _____

School City: _____ State: _____ Zip: _____

I am the parents/legal guardian of _____ and hereby grant Houston Livestock Show and Rodeo, Inc. ("HLSR") permission to display, photograph and/or video my child's 2026 Creativity Contest entry if HLSR should desire to do so. I waive and release any and all rights my child or I may have in and hold harmless Houston Livestock Show and Rodeo from any liability arising from its use of the Creativity Contest entry. ** Upon entering HLSR's Creativity Contest, I acknowledge that ownership of works submitted are henceforth relinquished to HLSR and not eligible for retrieval at any time prior to, during, or after the contest ends. **

Parent Signature: _____ Printed Name: _____ Date: _____

All entries must be signed and received by February 6, 2026. Return your entry to the classroom, or submit your entry to Houston Livestock Show and Rodeo Creativity Contest, 3 NRG Park, Houston, TX 77054. For questions, contact us at thornton@hlsr.com. Visit rodeohouston.com for more information about the Houston Livestock Show and Rodeo™.

CONCURSO DE CREATIVIDAD

Los diseños deben mantenerse dentro del contorno negro del cuadrado y contar con la firma de un padre o tutor para calificar en la participación del Concurso de Creatividad.

El Houston Livestock Show and Rodeo™ es una gran tradición de Texas. Desde su inicio en 1932, el Show ha entretenido a millones de fanáticos con competencias de ganado, exhibiciones ecuestres, un carnaval de clase mundial, exhibiciones comerciales y la emocionante acción del rodeo.

Usa tus colores, diseños, patrones, formas, texturas y más favoritos para completar tu propia Obra Maestra del Rodeo. Las participaciones no serán devueltas.

Los ganadores recibirán pases de entrada al Houston Livestock Show and Rodeo™. *POR FAVOR ESCRIBA CON LETRA LEGIBLE*

Nombre del estudiante: _____ Nivel escolar: 3er Grado
Nombre Segundo Nombre Apellido

Distrito escolar: _____ Teachers Name: _____

Escuela: _____ Teléfono de la escuela: _____

Dirección postal de la escuela: _____

Ciudad de la escuela: _____ Estado: _____ Código postal: _____

Yo, padre/madre o tutor legal de _____ por este medio otorgo permiso al Houston Livestock Show and Rodeo, Inc. ("HLSR") para exhibir, fotografiar y/o grabar en video la participación de mi hijo(a) en el Concurso de Creatividad 2026 si HLSR así lo desea. Renuncio y libero cualquier derecho que mi hijo(a) o yo podamos tener, y libero de toda responsabilidad al Houston Livestock Show and Rodeo™ por el uso de la participación en el Concurso de Creatividad. **Al participar en el Concurso de Creatividad de HLSR, reconozco que la propiedad de las obras presentadas se transfiere en adelante a HLSR y no podrá ser recuperada en ningún momento antes, durante o después de que finalice el concurso.**

Firma del padre/madre/tutor: _____ Nombre en letra: _____ Fecha: _____

Todas las participaciones deben estar firmadas y recibirse a más tardar el 6 de febrero de 2026. Devuelva su participación al salón de clases, o envíela al Houston Livestock Show and Rodeo Creativity Contest, 3 NRG Park, Houston, TX 77054. Para preguntas, contáctenos en thornton@hlsr.com. Visite rodeohouston.com para más información sobre el Houston Livestock Show and Rodeo™.