

LEAP CONNECT

Practice Test Reference Materials

Science
High School

Required Manipulatives and Instructional Materials include required graphics that are to be presented to the student during the administration of LEAP Connect Science Assessment. Refer to the *Directions for Practice Test Administration* (DPTA) for detailed instructions.

Session 1

Items 1–7 Answer Options

Graph 1, “Lynx and Hare Population Change” (Item 8)

Items 8–9 Answer Options

Chart 1 of a parent generation and their offspring (Item 10)

Item 10 Answer Options

Punnett Square 1 (Item 11)

Item 11 Answer Options

Incomplete Punnett Square 1 and Allele Cards (Item 12)

Punnett Square 2 (Item 13)

Items 13–15 Answer Options

Session 2

Items 16–19 Answer Options

Incomplete Chart 1 of things people do and cards (Item 20)

Model 1 of the circulatory system (Item 21)

Item 21 Answer Options

Incomplete Chart 2, “Ways Humans Affect the Environment” and cards (Item 22)

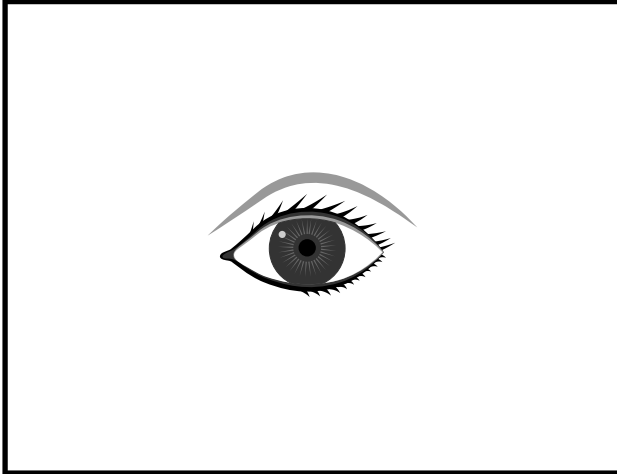
Items 23–24 Answer Options

Punnett Square 3 (Items 25–26)

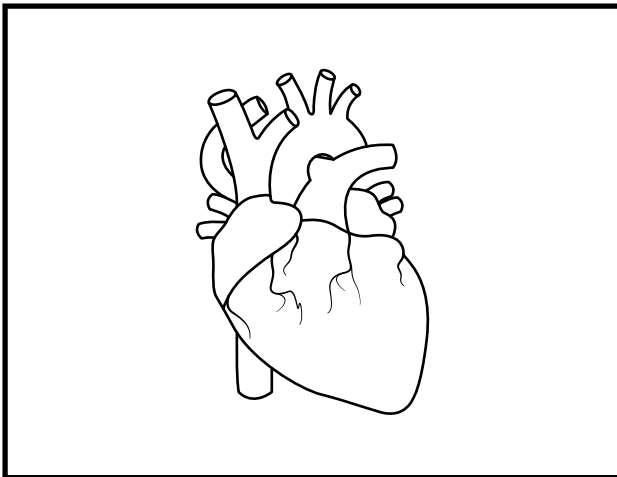
Items 25–30 Answer Options

Session 1

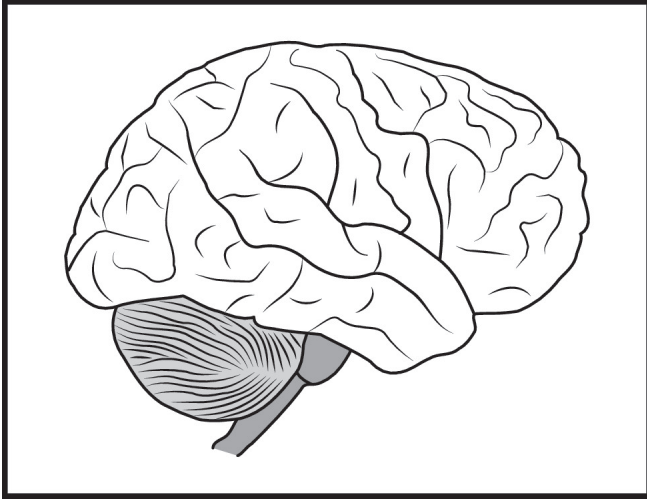
Session 1 – Item 1 Answer Options



A. eye

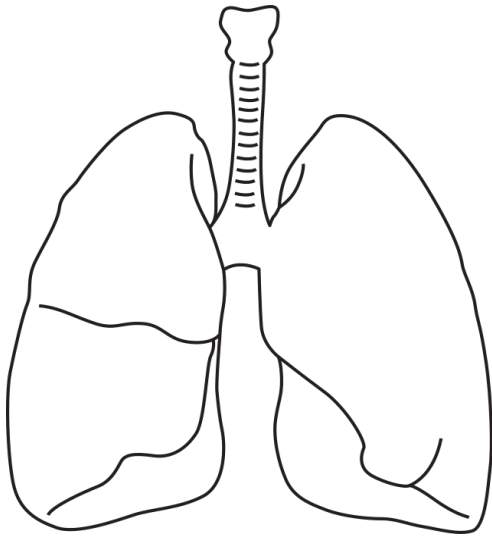


B. heart

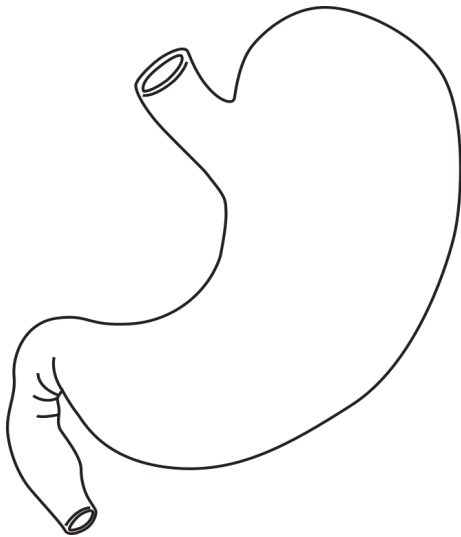


C. brain

Session 1 – Item 2 Answer Options

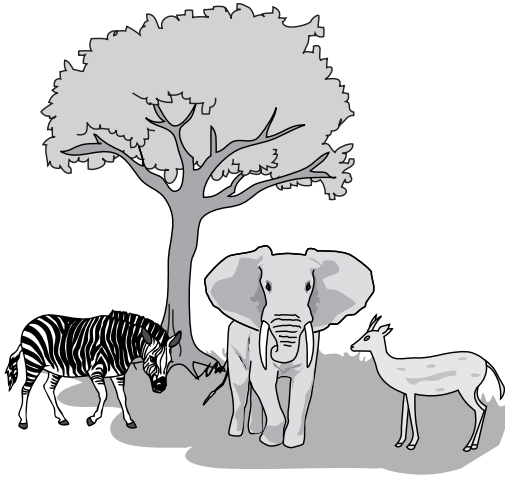


A. lungs

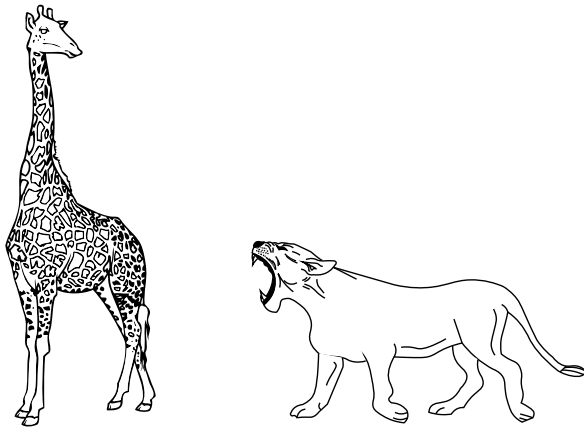


B. stomach

Session 1 – Item 3 Answer Options



A. finding shade



B. hunting prey

Session 1 – Item 4 Answer Options

- A. The smell of food is part of the process.

- B. The taste of the food increases.

- C. Food is broken down into pieces by chewing.

Session 1 – Item 5 Answer Options

A. Place the mouse in the maze in the dark.

B. Measure the time it takes several different mice to solve the same maze.

C. Measure the time it takes the same mouse to solve the maze on several attempts.

Session 1 – Item 6 Answer Options

A. The heart rate **decreases**.

B. The heart rate **increases**.

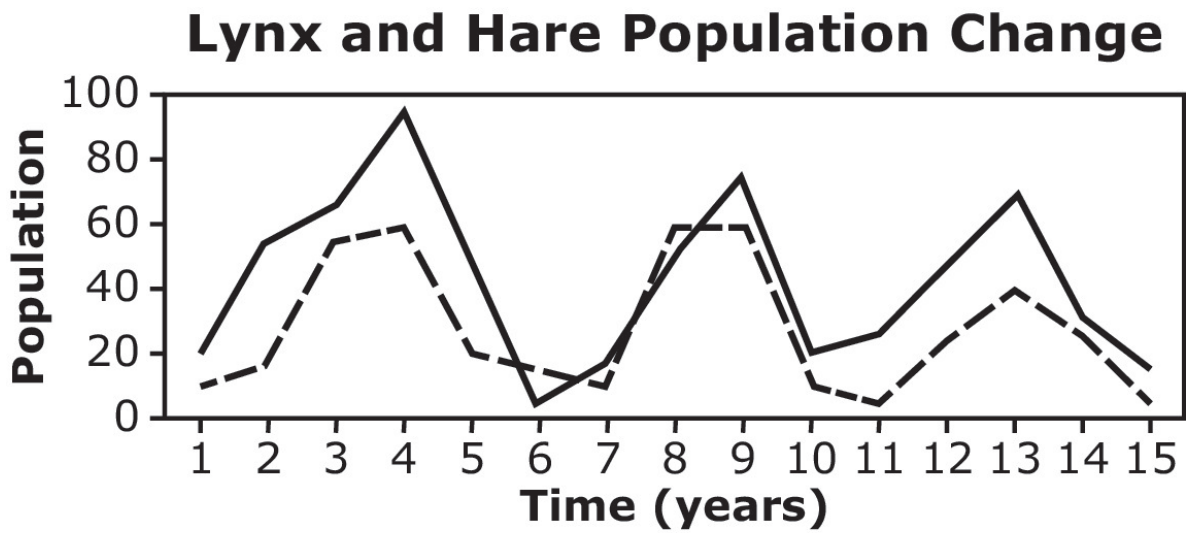
Session 1 – Item 7 Answer Options

- A. Ecosystems are always changing.

- B. Living organisms have adapted to seasonal floods.

- C. Much of Montserrat’s population has never returned.

Graph 1, "Lynx and Hare Population Change" (Item 8)



Key	
— population of snowshoe hare (thousands)	- - population of lynx (hundreds)

Session 1 – Item 8 Answer Options

A. The populations cycle at different times.

B. The population cycles are closely linked.

C. The population cycles are not related.

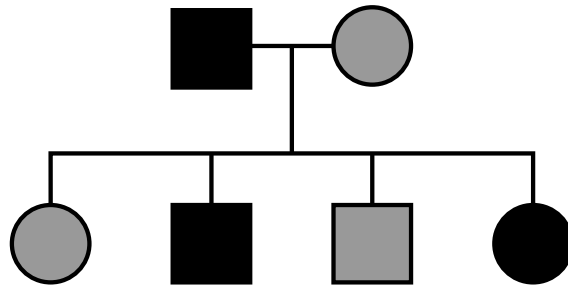
Session 1 – Item 9 Answer Options





A. plant native flowers that require less watering

B. use energy-efficient cars

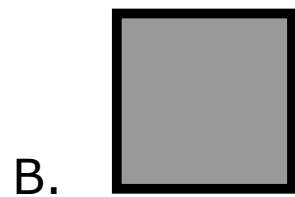
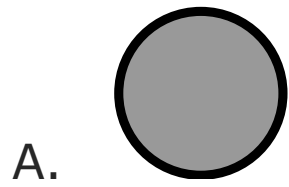
C. take long showers

Chart 1 of a parent generation and their offspring (Item 10)

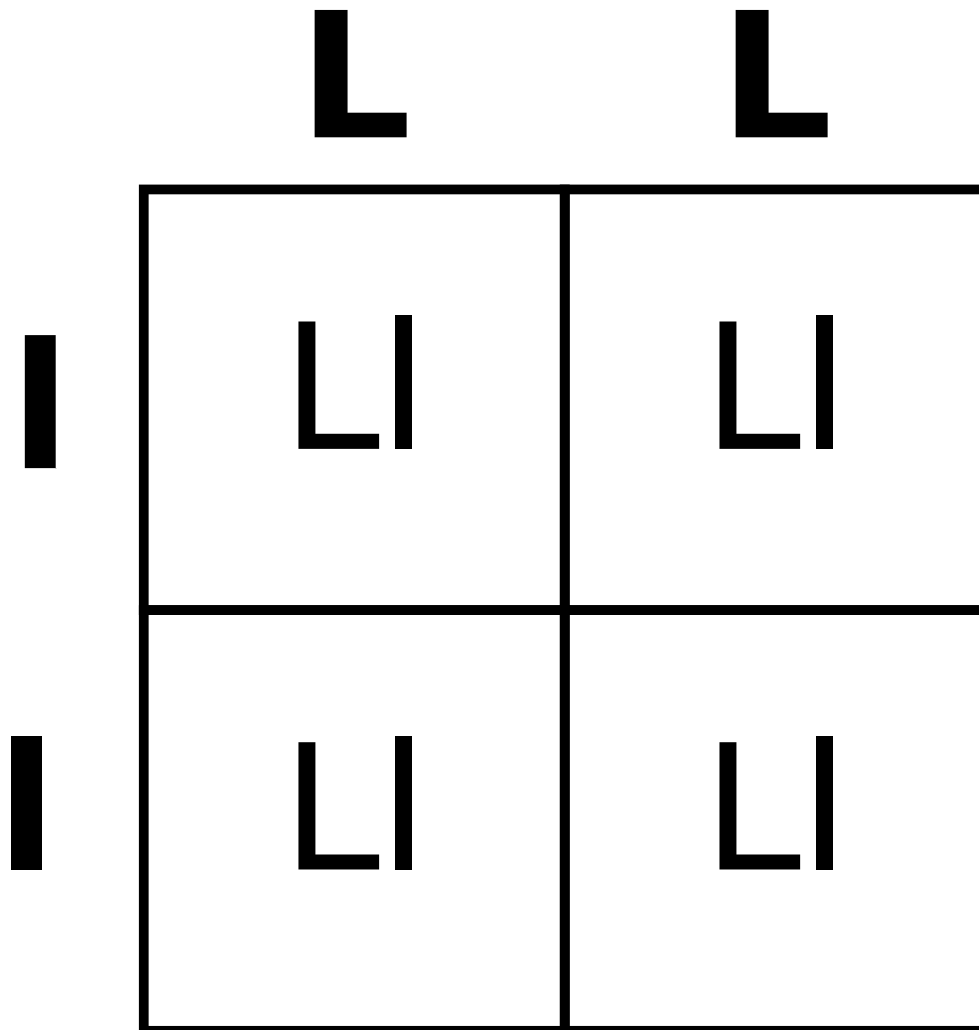


Key			
			
Affected Male	Affected Female	Unaffected Male	Unaffected Female

Session 1 – Item 10 Answer Options



Punnett Square 1 (Item 11)



Session 1 – Item 11 Answer Options

- A. Each offspring has a 0 in 4 chance of having the curly leaf shape.

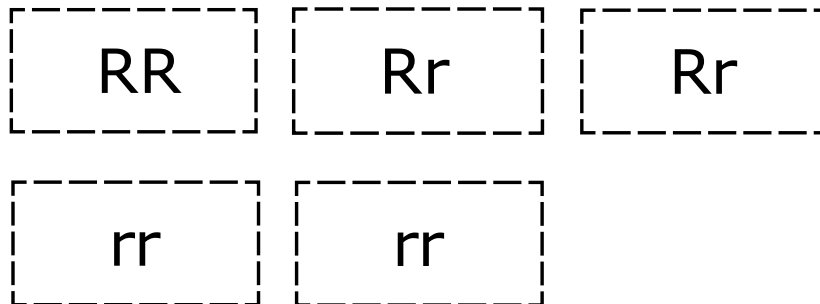
- B. Each offspring has a 2 in 4 chance of having the curly leaf shape.

- C. Each offspring has a 4 in 4 chance of having the curly leaf shape.

Incomplete Punnett Square 1 and Allele Cards (Item 12)

Provide student with Incomplete Punnett Square 1 and allele cards. The following will need to be reproduced and cut out for student use.

	r	r
R	Rr	
R		



Punnett Square 2 (Item 13)

	r	r
R	Rr	Rr
r	rr	rr

Session 1 – Item 13 Answer Options

A. 0 out of 4

B. 1 out of 4

C. 2 out of 4

Session 1 – Item 14 Answer Options

A. Different breeds have the **same** traits.

B. Different breeds have **different** traits.

Session 1 – Item 15 Answer Options

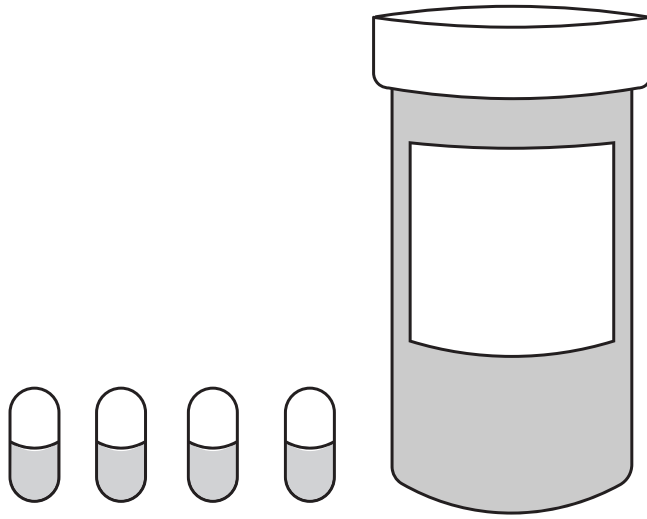
- A. Caterpillars had no effect on flower traits and pollinator behavior.

- B. Caterpillars affected flower traits and pollinator behavior.

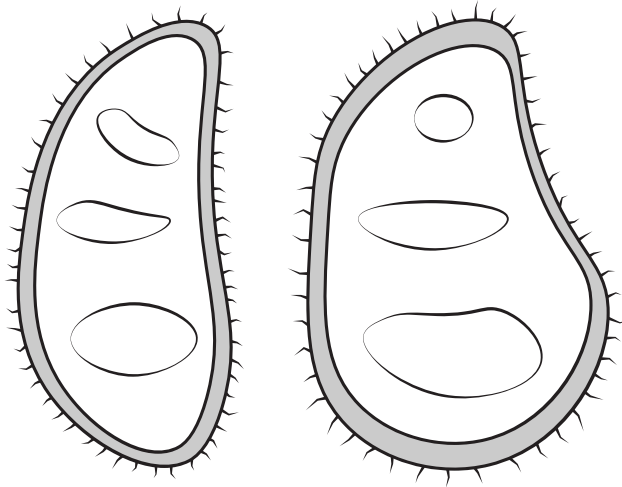
- C. Caterpillars affected flower traits, but had no effect on pollinator behavior.

Session 2

Session 2 – Item 16 Answer Options

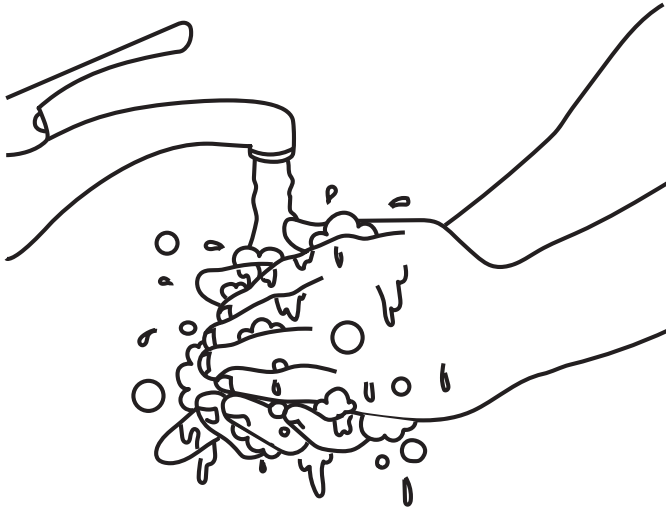


A. vitamins



B. bacteria

Session 2 – Item 17 Answer Options



A. washing hands

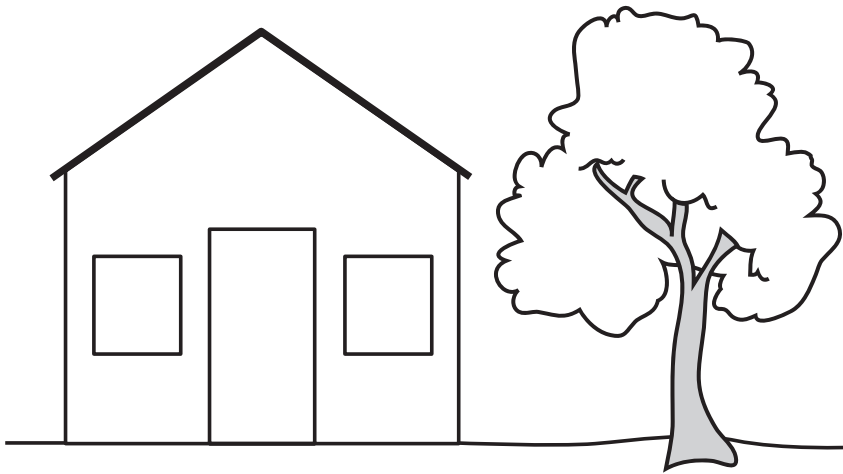


B. wearing glasses

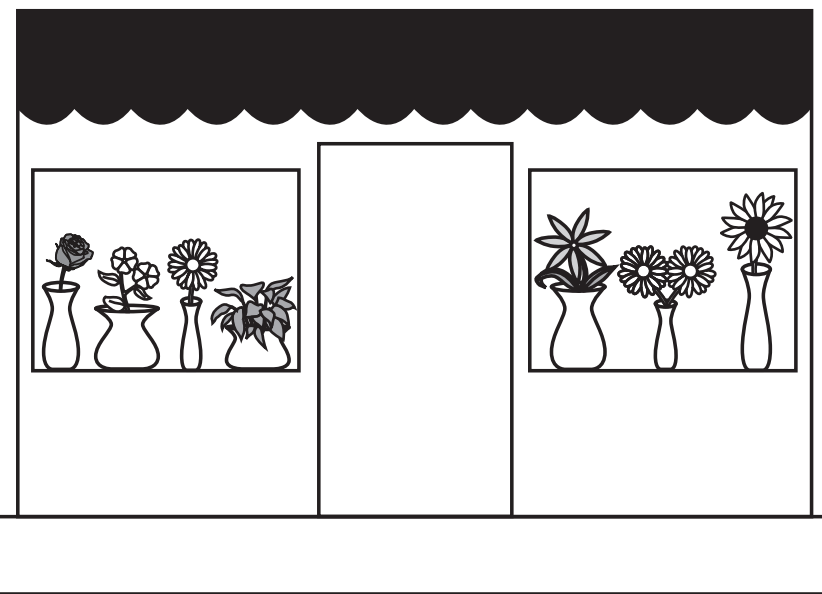


C. cooking food

Session 2 – Item 18 Answer Options



A. stay home



B. go to the store



C. visit many friends

Session 2 – Item 19 Answer Options

A. ignore the open wound while it heals

B. touch the open wound with dirty hands

C. clean the open wound with warm water and soap

Incomplete Chart 1 of things people do and cards (Item 20)

Provide the student with Incomplete Chart 1 and cards. The following will need to be reproduced and cut out for student use.

Keep a healthy
diet while getting
better.

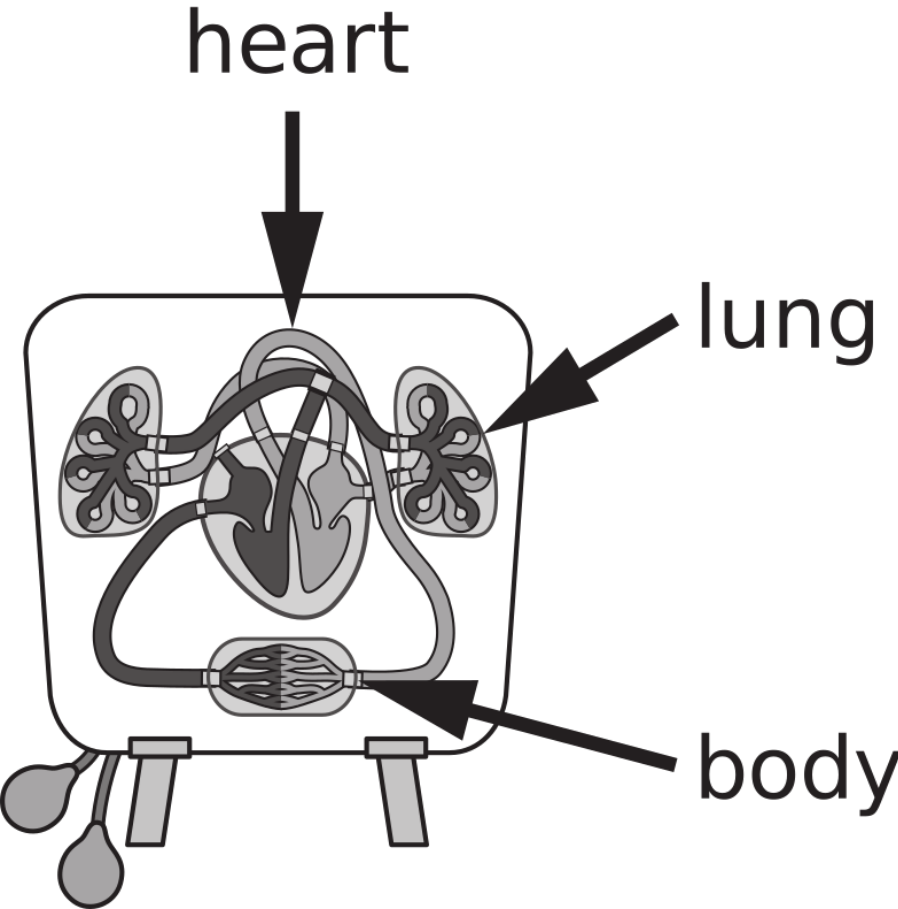
See a doctor for
the right
medicine.

Get immunized
against diseases.

Cover your mouth
and nose when
you sneeze.

Things People Do to Prevent Infection	Things People Do During an Infection	Things People Do When Recovering from an Infection

Model 1 of the circulatory system (Item 21)



Session 2 – Item 21 Answer Options

A. carbon dioxide

B. oxygen

C. egg

Incomplete Chart 2, “Ways Humans Affect the Environment” and cards (Item 22)

Provide student with Incomplete Chart 2, “Ways Humans Affect the Environment” and cards. The following will need to be reproduced and cut out for student use.

| plant
| trees

| burn
| trash

| protect
| wildlife

Ways Humans Affect the Environment

Humans Positive Effect on the Environment	Humans Negative Effect on the Environment

Session 2 – Item 23 Answer Options

A. The oyster beds flooded.

B. The oyster population decreased.

Punnett Square 3 (Items 25-26)

	f	f
F	Ff	Ff
f	ff	ff

Session 2 – Item 25 Answer Options

A. They all look like their mother.

B. They all look like their father.

C. Half will likely have black fur.

Session 2 – Item 26 Answer Options

A. the time they were born

B. the alleles they inherit

C. the location they live in

Session 2 – Item 27 Answer Options

A. They leave **no** offspring in the next generation.

B. They leave **few** offspring in the next generation.

C. They leave **more** offspring in the next generation.

Session 2 – Item 28 Answer Options

A. large ears

B. layer of fur

C. eye color

Session 2 – Item 29 Answer Options

A. Few large-horned males survive to reproduce.

B. The hunting of sheep with small horns increased.

C. Sheep with large horns blend in with the habitat.

Session 2 – Item 30 Answer Options

- A. The bighorn sheep population moved to another habitat.

- B. The hunt for large-horned sheep was ended.

- C. More female sheep were being hunted.

LEAP
CONNECT
Practice Test