

# PLANTS AND PHOTOSYNTHESIS

## ESCAPE ROOM

**AND PHOTOSYNTHESIS**

isms that need food in order to survive. Unlike humans and other things, plants are known as autotrophs because they produce their own food through a process called photosynthesis. Photosynthesis is the process by which plants use sunlight, water, and carbon dioxide to produce glucose and oxygen. This process is vital for humans and other animals because we need oxygen to survive. Without it, the earth and its inhabitants would not be able to exist. The study of photosynthesis began in the 17th century when Jan Ingenhousz discovered that plants release oxygen when placed in sunlight. Dutch scientist Jan Ingenhousz was the first to observe that plants release oxygen when placed in sunlight. This discovery was later named oxygen. Dutch scientist Jan Ingenhousz was the first to observe that plants release oxygen when placed in sunlight. This discovery was later named oxygen.

**LEVEL 1 DECODER**

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

L=2	J=q	F=1
R=0	W=4	A=6
T=8	G=3	Z=5
Q=7	D=9	P=0
H=1	Y=8	B=3
N=4	C=6	K=1

**LEVEL 2 DECODER**

**DECODER**

2	3
ABC	DEF
5	6
JKL	MNO
8	9
TUV	WXYZ

**LEVEL 1: QUESTION 2**

The Calvin Cycle was discovered by ---- Calvin.

<input type="checkbox"/>	Marcus
<input type="checkbox"/>	Melvin
<input type="checkbox"/>	Martin
<input type="checkbox"/>	Dmitri

**LEVEL 1: QUESTION 4**

Sunlight provides energy and is absorbed through ----.

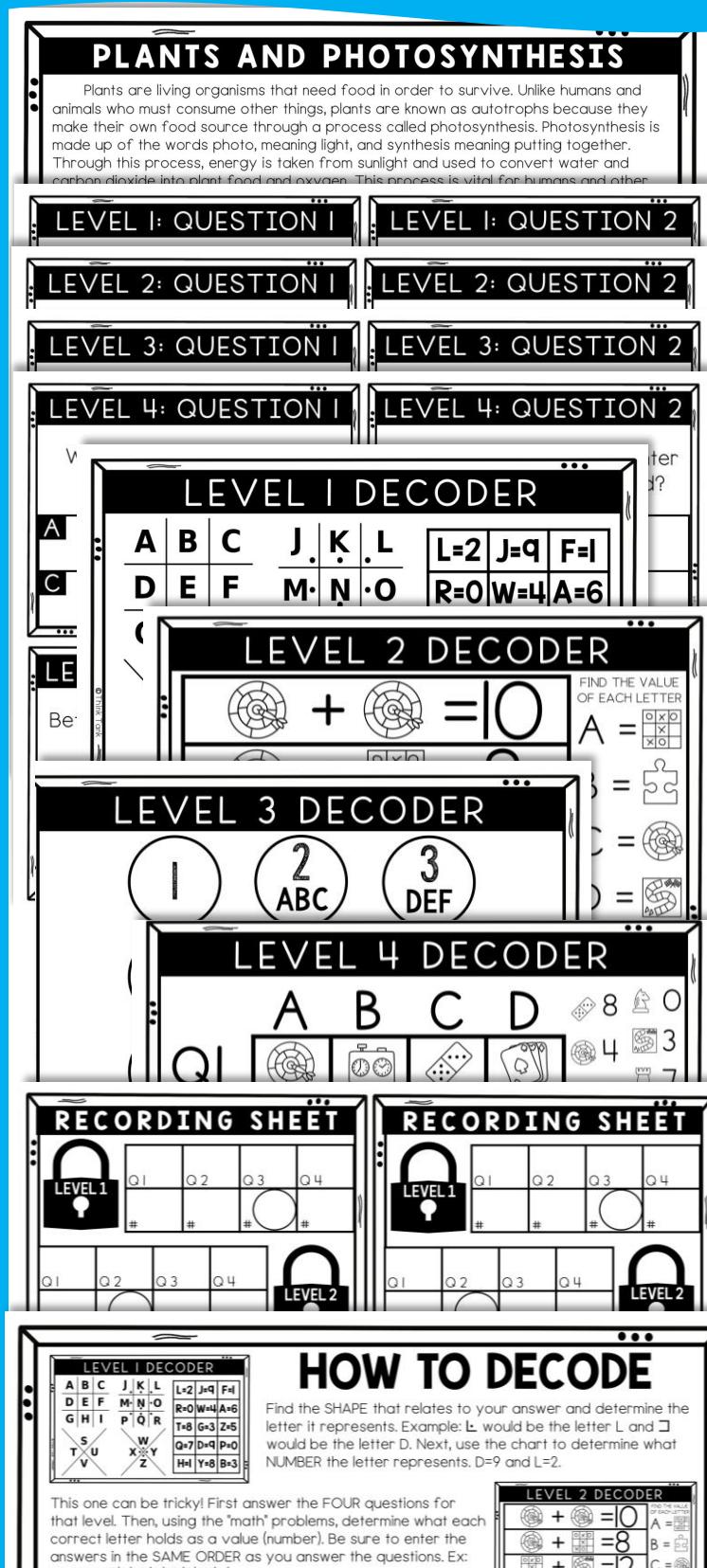
Pollen

**RECORDING SHEET**

LEVEL 1	Q1	Q2	Q3	
	#	#	#	
LEVEL 2	Q1	Q2	Q3	Q4
	#	#	#	#

**THINK TANK**

# WHAT'S INCLUDED?



- ✓ READING PASSAGE
- ✓ 4 PUZZLE DECODERS
- ✓ 16 MULTIPLE CHOICE Q'S
- ✓ TEACHER GUIDE
- ✓ ANSWER KEY
- ✓ STUDENT DIRECTIONS
- ✓ HINT CARDS



# 16 QUESTIONS

**AND PHOTOSYN**  
Plants that need food in order to survive are known as autotrophs. Other things, plants are known as autotrophs because they make their own food source through a process called photosynthesis. Photo, meaning light, and synthesis means putting together. This process is used to produce food and oxygen. This process is used by the earth and its inhabitants. Without it, the earth and its inhabitants would not be able to survive. The study of photosynthesis began in the 17th century when Jan Ingenhousz discovered that plants release oxygen. He placed a mint sprig inside the container and later named oxygen. He discovered that plants release oxygen through chlorophyll. Three things: sunlight, carbon dioxide, and water are needed for photosynthesis.

**LEVEL 1: QUESTION 1**  
Plants are known as \_\_\_\_\_ because they make their own food source.

<input type="checkbox"/> J Theocratic	<input type="checkbox"/> A Autotrophs
<input type="checkbox"/> F Herbivores	<input type="checkbox"/> D Monotropic

**LEVEL 1: QUESTION 2**  
The Calvin Cycle was discovered by \_\_\_\_\_.

<input type="checkbox"/> A Dmitri	<input type="checkbox"/> D
<input type="checkbox"/> C Martin	<input type="checkbox"/> B

**LEVEL 2: QUESTION 1**  
Jan Ingenhousz was a \_\_\_\_\_ scientist.

<input type="checkbox"/> A Australian	<input type="checkbox"/> B Russian
<input type="checkbox"/> C Dutch	<input type="checkbox"/> D German

**LEVEL 1: QUESTION 3**  
Chlorophyll traps blue light.

**RECORDING SHEET**  
LEVEL 1

Q1	Q2	Q3	Q4
#	#	#	#

**LEVEL 1 DECODER**

B	C	J	K	L
E	F	M	N	O
H	I	P	Q	R
U	X	W	Y	Z

L=2 J=q  
R=0 W=4  
T=8 G=3  
Q=7 D=q  
H=1 Y=8  
N=4 C=6 K

**LEVEL 4: QUESTION 1**  
Plants are constantly releasing \_\_\_\_\_ into the air.

<input type="checkbox"/> A Potassium	<input type="checkbox"/> B Carbon dioxide
<input type="checkbox"/> C Nitrogen	<input type="checkbox"/> D Oxygen

**RECORDING SHEET**  
LEVEL 1

Q1	Q2	Q3	Q4
#	#	#	#

**LEVEL 4: QUESTION 2**

**LEVEL 3 DECODER**

1	2 ABC	3 DEF
4 GHI	5 JKL	6 MNO
7 PQRS	8 TUV	9 WXYZ

**LEVEL 3: QUESTION 1**  
What are the tiny holes in leaves called?

<input type="checkbox"/> A Xylem	<input type="checkbox"/> T Stigmata
<input type="checkbox"/> H Phloem	<input type="checkbox"/> L Stomata

**LEVEL 3: QUESTION 2**  
The \_\_\_\_\_ plant does not go through photosynthesis.

<input type="checkbox"/> E Cactus	<input type="checkbox"/> M Corpse
<input type="checkbox"/> Y Datura	<input type="checkbox"/> B Trifolium

**LEVEL 3: QUESTION 3**  
LDR stands for \_\_\_\_\_ dependent reactions.

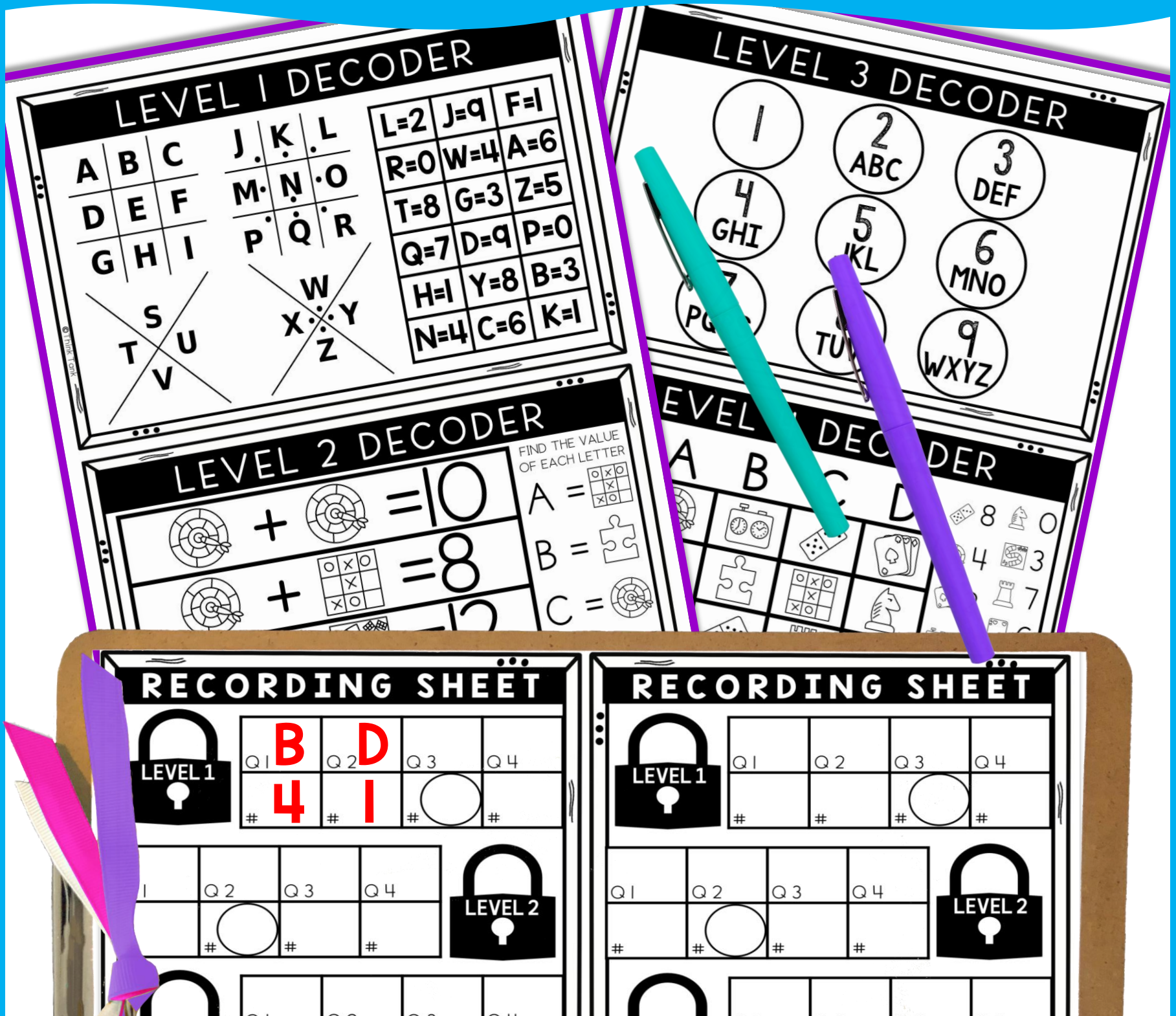
<input type="checkbox"/> I Latch	<input type="checkbox"/> J
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**LEVEL 3: QUESTION 4**  
Plants create their own food source through \_\_\_\_\_.

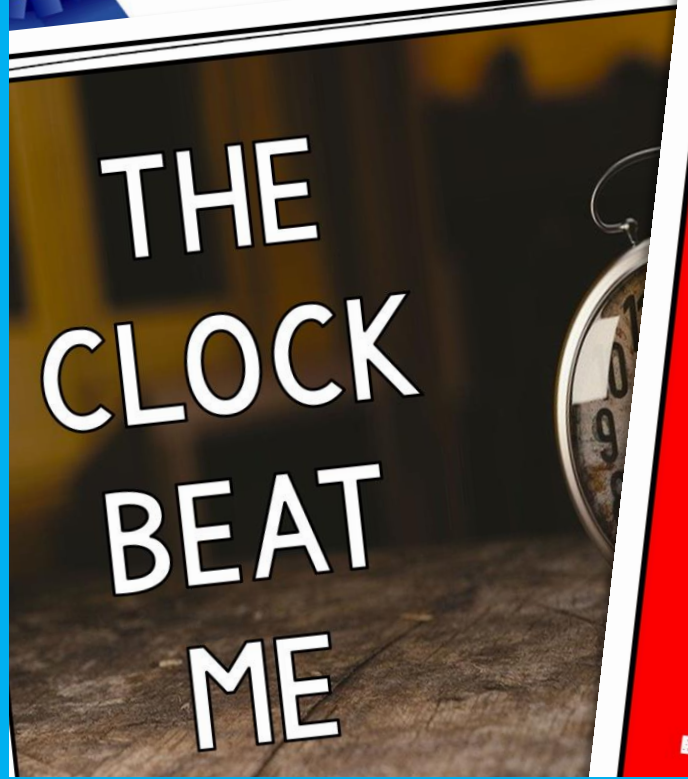
**LEVEL 4 DECODER**

Q1	A	B	C	D	8	9	0
Q1							
Q2							
Q3							


# PUZZLE TYPES



# PRINT, CUT, PLAY



# HOW IT WORKS



## ENGAGING READING COMPREHENSION PRACTICE!

1

Students work individually (or in pairs) and visit 16 question cards.

2

Students will answer the questions found directly in the passage on their recording sheet.

3

Students will use that specific “decoder” to reveal a 4-digit code for each level.

### PLANTS AND PHOTO

Plants are living organisms that need food in order to survive. Unlike animals who must consume other things, plants are known as autotrophs because they make their own food source through a process called photosynthesis. This process is made up of the words photo, meaning light, and synthesis. Through this process, energy is taken from sunlight and carbon dioxide to create plant food and oxygen. This process is essential for all living organisms and without it, the earth and its inhabitants would not be able to survive.

### LEVEL 1 DECODER

A	B	C	J	K	L	L=2	J=9	F=1
D	E	F	M	N	O	R=0	W=4	A=5
G	H	I	P	Q	R	T=8	G=3	Z=7
<del>T</del>	<del>S</del>	<del>U</del>	<del>X</del>	<del>W</del>	<del>Y</del>	Q=7	D=9	P=6
						H=1	Y=8	B=3
						N=4	C=6	K=1

### LEVEL 1: QUESTION 1

Plants are known as \_\_\_\_\_ because they make their own food source.

Theocratic

Autotrophs

Herbivores

Monotropic

### LEVEL 1: QUESTION 2

The Calvin cycle was discovered by \_\_\_\_\_.

Dmitri

Martin

### LEVEL 1: QUESTION 3

Chlorophyll traps blue and \_\_\_\_\_ light.

Green




### LEVEL 1: QUESTION 4




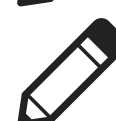
Sunlight provides energy for photosynthesis. \_\_\_\_\_ is absorbed through the leaves.

# BENEFITS



THINK OUTSIDE THE BOX!

-  ANTICIPATORY SETS
-  UNIT REVIEW
-  EARLY FINISHERS
-  STATIONS
-  SUB PLANS
-  PARTNER WORK
-  ENRICHMENT

-  LOW PREP
-  PRINT, CUT & PLAY
-  CROSS-CURRICULAR
-  HIGHLY ENGAGING

