$\qquad$
$\qquad$

## unit cells 3

| Y | S | V | K | N | P | F | X |  | X | F | H | K | P | L | A | Q | P | B | U | K | X | 1 F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Q | P | S | P | U | 0 | F | F | Y | A | B | L | A | U | X | E | S | A | P | Y | P | E | T |
| X | L | W | G | S | W | I | Q | U | V | B | F | S | K | Q | C | S | F | K | Q | M | R | X X |
| G | K | A | P | S | Z |  | T | K | L | P | B | Z | B | U | Q | N | Y | T | B | N | H | D J |
| E | H | R | U | V | U |  | B | A | R | D | G | V | C | U | L | R | U | R | N | 0 | Z | I K |
| A | M | G | W | X | K |  | 0 | F | 1 | P | W | R | F | E | P | L | Y | E | 0 |  | N | 0 |
| Q | P | R | K | X | E | G | B | 0 | S | R | A | S | E | B | X | 0 | Q | M | N | T | C | L M |
| G | N | S | S | V | U | S | S | K | S | M | A | R | X | R | L | R | D | D | D | A | R | P L |
| H | C | B | V | P | J | E | A | Q | R | Q | Q | V | Z | U | C | F | E | N |  |  | 0 | 1 R |
| W | V | H | Y | Z | E | A | H | 0 | M | 0 | L | 0 | G | 0 | U | S | K | E | S | U | S | D A |
| A | N | F | R | E | R | C | Q | Z | D | R | A | L |  | L | Y | $J$ | H | Y | J | M | S | G N |
| $J$ | E | E | T | 0 | G | N |  | S | U | E | L | C | U | N | Z | W | G | M | U | E |  | R D |
| W | E | R | N | W | M | G | Y | A | D | D |  | 0 | L | P | A | H | D | M | N | N | N | N O |
| C | B | T | K | L | $J$ | 0 | Q | D | L | G | D | M | 0 | T | L | M | B | S | C | E | G | Y M |
| C | M | 1 | Q | V | G | Z | S | L | E |  | S | B | M | R | K | C | E | $J$ | T | G | 0 | D A |
| G | Z | L | C | $J$ | N | X | Y | 0 | U | F | Z |  | $J$ | U | $J$ | E | X | V |  | Z | V | E S |
| C | F | 1 | V | C | C | W | D | G | M | L | T | A | S | W | N | M | T | E | 0 | A | E | T S |
| X | N | Z | Q | 1 | S | 0 | Y | X | 0 | E | $J$ | X | T | 0 | C | L | R | D | N | Z | R | E O |
| F | R | A | D | T | 1 |  | 1 | Y | F | T | S | Q | $T$ |  | T | E | B | K | U |  | C | M R |
| K | D | T | F | A | C | Q | S | X | W | D | E | 0 | C | S | 0 |  | B | V | B |  | U | A T |
| P | E | 1 | Y | M | V | U | P | 0 | P | F | B | S | F | Q | X | N | M | 0 | E | U | W | G |
| Y | Q | 0 | L | 0 | Q | D | V | U | 1 | R | X | G | Z | V | S | P | E | R | M | E | E | A |
| N | $J$ | N | $J$ | S | P | X | D | W | J | E | D | Z | G | X | Q | D | F | $J$ | P | $J$ | N | Y N |
| F | D | X | M | R | N | Q | J |  | K | G | M | F | K | Q | L | G | Z | Q | G | Y |  | D |


| random assortment | specialization |
| :--- | :--- |
| fertilization | crossing over |
| variation | asexual |
| haploid | diploid |
| embryo | zygote |
| sperm | egg |


| nondisjunction | gene mutation |
| :--- | :--- |
| chromosomes | homologous |
| mitosis | nucleus |
| meiosis | somatic |
| sexual | gamete |

