Design Information Transfer

Grade 4 Science Worksheet - Challenge Me

Name _____ Date _____

Circle the answer.

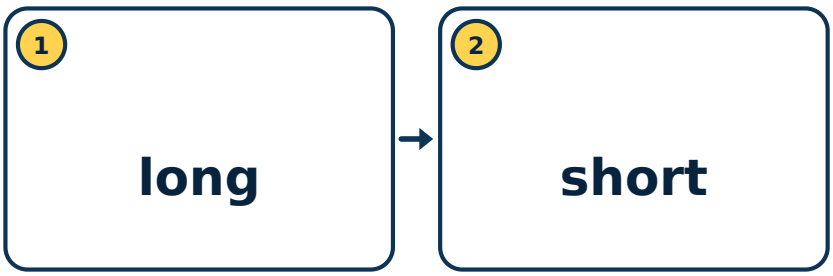
1. A code key is printed only on the sender's card. What will happen during the test?
   the messages will be decoded faster
   the code will fix itself
   the signal will become louder
   the receiver cannot decode the messages

2. A team says, "Our code works because the light is very bright." Why is this not enough evidence?
   bright lights cannot carry patterns
   brightness is the only thing that matters
   they have not checked that a partner can decode the messages
   they need a quieter light

3. A hiker uses 3 whistle blasts to call for help. Why use 3 instead of 1?
   3 blasts is a pattern that is unlikely to happen by accident
   1 blast cannot travel very far through air
   3 blasts use less breath than 1 long blast
   1 blast is too loud for people nearby

4. Code: short-short = north, short-long = south, long-long = east. Ben sees long-long. Which way should he go?
   west east south north

5. Code: short-long = go left, long-long = go right, long-short = stop. Look at the signal. What should the robot do?



go forward go left stop go right

Scan to get this marked free. No screen time for your child.
Print it · do it in pencil · scan it · PencilGo picks the next sheet.

Design Information Transfer

Answer Key - Grade 4 Science Worksheet - Challenge Me

Circle the answer.

1. A code key is printed only on the sender's card. What will happen during the test?

   the messages will be decoded faster

   the code will fix itself

   the signal will become louder

   the receiver cannot decode the messages

2. A team says, "Our code works because the light is very bright." Why is this not enough evidence?

   bright lights cannot carry patterns

   brightness is the only thing that matters

   they have not checked that a partner can decode the messages

   they need a quieter light

3. A hiker uses 3 whistle blasts to call for help. Why use 3 instead of 1?

   3 blasts is a pattern that is unlikely to happen by accident

   1 blast cannot travel very far through air

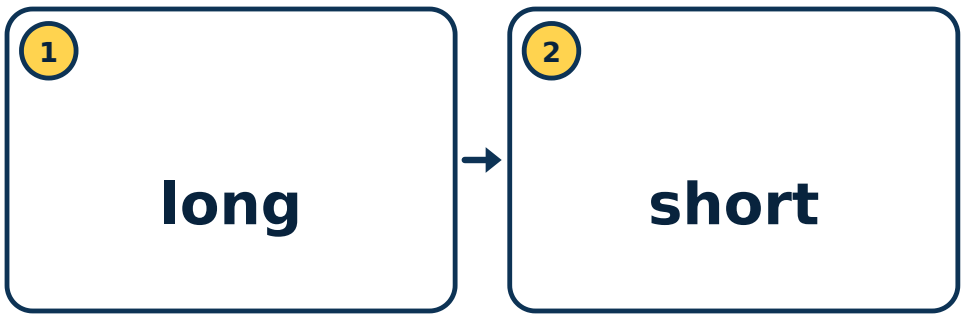
   3 blasts use less breath than 1 long blast

   1 blast is too loud for people nearby

4. Code: short-short = north, short-long = south, long-long = east. Ben sees long-long. Which way should he go?

   west **east** south north

5. Code: short-long = go left, long-long = go right, long-short = stop. Look at the signal. What should the robot do?



go forward go left **stop** go right