



Understanding the Higgs Boson



Particle-physics word search

See how many words or names you can find from each of the groups below.

If you find all of the words, the unused letters will spell out some information about the Higgs boson.

Words may be written forwards or backwards, and may be horizontal, vertical or diagonal.

Q S G L A S H O W T H H E E K E C N
 U O P H E U N C L Y A N N I K G H O
 A N O I W P N A O D G E B C R T A U
 N M A G N E T L R L R B R A R F R L
 T E V G R R U O E G L O V I N C M G
 U L N S E S N R Y E S I G S H G K T
 M E E D L Y T I A S T G D L M U R O
 M C U E A M W M S O E C E E N R A T
 E T T B T M T E N R L H T P R A U E
 C R R A I E C T I F H A E T B L Q M
 H O A R V T A E E N C R C O O N S A
 A N L Y I R L R S C B G T N T I A S
 N V I O T Y M E S O N E O G T K L S
 I O N N Y I P I C O B A R N O A A L
 C L O A O N O T O H P I R G M C M S
 S T A N D A R D M O D E L B R O U T
 P A R B O S O N E G A H E P T I C L
 S A L T A L I C E R N E R U O L O C

TYPES OF PARTICLE

baryon / boson
fermion / hadron
meson

FUNDAMENTAL PARTICLES

bottom / charm / gluon
photon / quark

UNDISCOVERED PARTICLES

graviton / neutralino
slepton

PARTICLE PROPERTIES

charge / colour
energy / mass / spin

TERMS USED IN PARTICLE PHYSICS

cross section
HEP
quantum mechanics
relativity
Standard Model
supersymmetry

PEOPLE WHO'VE WORKED ON IDEAS RELATING TO THE HIGGS BOSON

Brout / Englert
Glashow / Guralnik
Hagen / Higgs / Kibble
Salam / Weinberg

PLACES FOR RESEARCH IN PARTICLE PHYSICS

CERN / LEP / LHC

EXPERIMENTS AT THE LARGE HADRON COLLIDER

ALICE / ATLAS / CMS
LHCb / TOTEM

UNITS OF MEASUREMENT

electron volt
picobarn / TeV

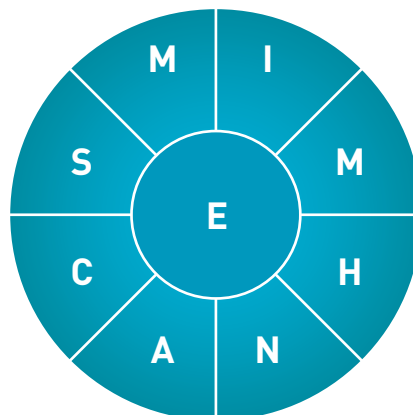
TECHNOLOGY

calorimeter / collider
detector / grid
magnet / trigger

High-energy word wheels

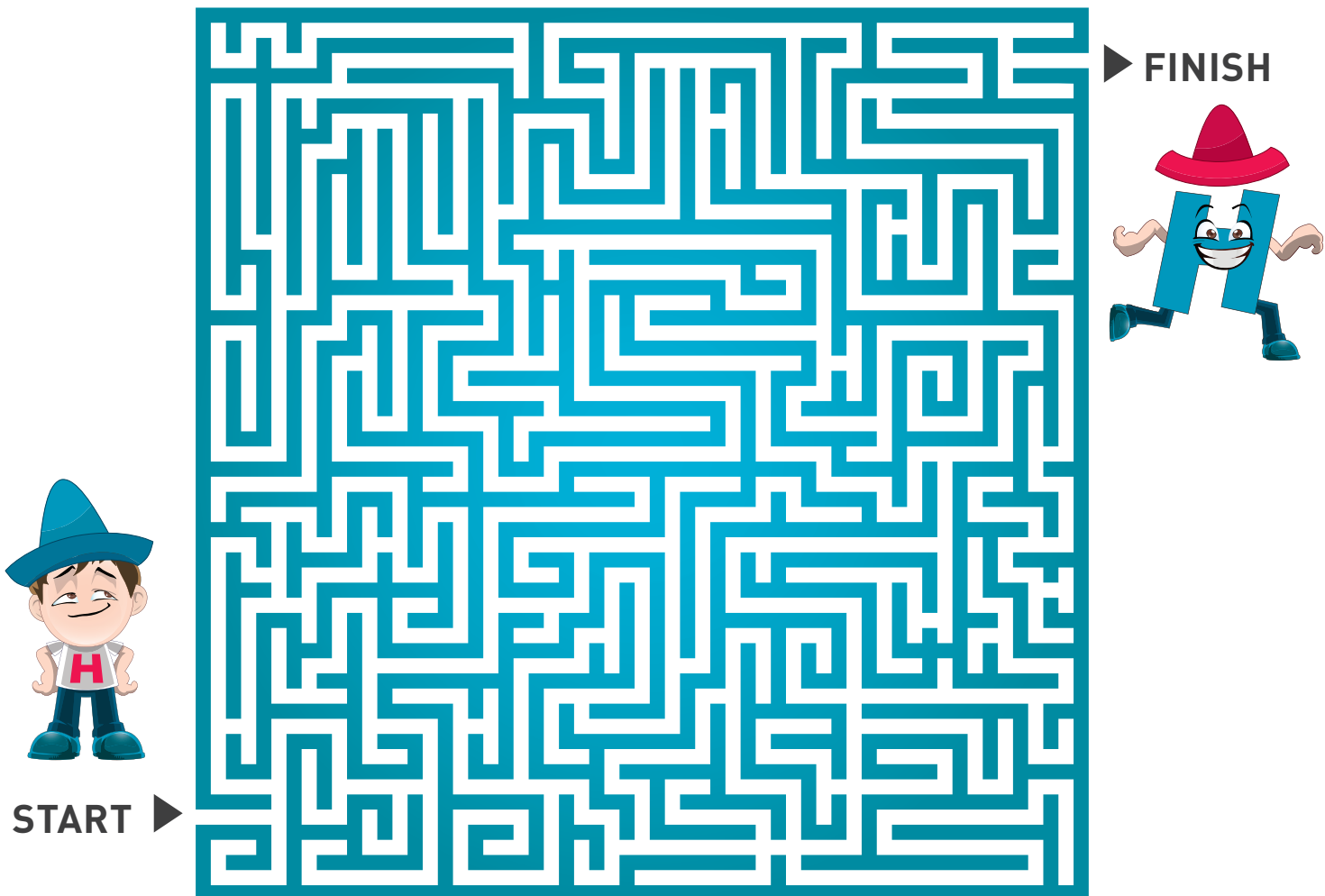
See how many different words you can make with the letters in these word wheels.

Work with one word wheel at a time, using each letter only once. Can you find the two words that use every letter in each wheel?



Search for the Higgs Boson

Scientists have spent years searching for the Higgs Boson.
How long will it take you to find it with Henry the Higgs Hunter?



Spot the difference

Can you spot 10 differences between these two pictures of Harriet the Higgs Hunter?



Check your answers online at understanding-the-higgs-boson.org