

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

180-degree symmetry. The diagram looks the same upside down. All typical crosswords have this feature.

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

90-degree symmetry. A quarter turn maps the grid onto itself.

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

Mirror symmetry in two axes.

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

Mirror symmetry in four axes.

Grid

The grid is the pattern of black and white squares that the solver fills in. You can use graph paper or computer software to help design and fill crossword grids.

Grid features

Grids are almost always square.

Grids usually have an odd number of squares on each side. Common sizes for grids are 15 x 15 for weekday puzzles and 21 x 21 for Sunday puzzles.

The maximum word count in a 15 x 15 themed puzzle is 78 words.

No more than about 1/6 of the squares in the grid should be black.

Every white square in the grid must appear in an Across and a Down word.

The black squares of the grid must not divide the puzzle into unconnected areas.

Grid symmetries

The pattern of black squares must have 180-degree symmetry. That is, if you turn the diagram upside down, it looks the same.

In addition to 180-degree symmetry, some puzzles also have 90-degree symmetry.

In addition to 180-degree symmetry, some puzzles also have mirror symmetry.

On rare occasions, a puzzle will have mirror symmetry only, without 180-degree symmetry.

Things to avoid in grids

Two-letter words are not allowed in standard puzzles.

Avoid having too many three-letter words. A maximum of 8–15 three-letter words is ideal.

Avoid “cheater” black squares added just to make filling the grid easier. If a black square can be removed without changing the total number of words in the grid, it is a cheater, unless it is required for thematic reasons.

Avoid large clumps of black squares.

Avoid having just one entry as a mode of access into a region of the grid. Solvers should have two ways of getting into every region. This guideline is violated in the top diagram shown at the left.

Grid Activity

The following grids are unacceptable for different reasons. Can you explain why each grid fails to meet the typical requirements for a puzzle?

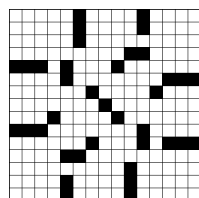


Diagram A

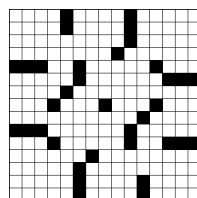


Diagram B

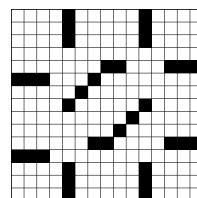


Diagram C

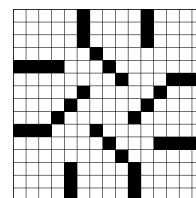


Diagram D

Fill



Phase 1: The theme entries must be placed first, in symmetric locations. Black squares are built around them.



Phase 2: The longest Down entries are filled in, especially those that cross more than one theme entry.



Phase 3: The left, right, and center regions are filled.



Phase 4: The top and bottom regions are filled. Only the corners remain.

The fill is the collection of words and phrases that are the answers in the grid. The fill should use common words rather than obscure ones. A puzzle is made hard by clever clues, not by including obscure words. Computer software can help you find legitimate fills.

Fill sequence

The diagrams at the left show a typical sequence for finding a fill.

The theme entries are placed first, and black squares are built around them that conform to standard grid requirements.

Once the theme entries are in place, look for other longer words in the diagram, especially those that cross through more than one theme entry. These need to be chosen early to ensure that a fill is possible.

Smaller words are filled later, region by region.

Things to avoid in fill

Avoid too many “crossword-ese” words that appear over and over in puzzles, such as ESNE, IOTA, ORCA, and so on.

Avoid obscure or obsolete words. Avoid made-up words or phrases.

Avoid death, disease, and other unpleasant topics. Puzzles are sometimes used as an escape, and should not remind solvers of their troubles.

Don’t use too many abbreviations as entries.

Don’t include too many proper names.

Don’t have too many entries that will require fill-in-the-blank clues.

Don’t strain to get every letter of the alphabet in. Letters like Z, K, Q, J, and F are rare and fun to see in puzzles but getting them all in may lead to bad quality fill.

Fill Activity

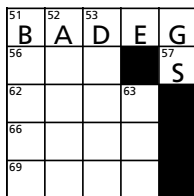
The four corners of the puzzle shown at the left are reproduced below. Can you find a fill for one or more of these corners?



Upper left



Upper right



Lower left



Lower right

Clues

The clues in a puzzle are what the solver uses to discover the answers. A common mistake of beginning crossword constructors is to make too many clues too difficult. You have to give the solver a fighting chance at completing the puzzle.

Rules for clues

The part of speech of a clue must match the part of speech of the answer.

Clues should be accurate. You may need to fact-check clues.

Clues should be short, since there are space limitations in newspapers.

If an answer is an abbreviation, the clue should include an abbreviation itself as a cue, or include “(abbr.)” at the end.

Difficult entries should have easy clues, or they should be crossed by words that all have easy clues.

The level of difficulty of clues should be appropriate for the venue of the puzzle and the day of the week it will appear.

Clue Solving Activity

Can you solve these clues?

The question marks at the end indicate these are tricky clues.

Pole star?

S _ N _ A _ L _ U _

Old tool for working on logs?

_ L _ D _ R _ L _

Where mates are often found?

_ N D _ A _ _ S

Blessed events?

_ N _ _ Z _ _

Takes back the lead?

E _ _ S _ _

Spoke more than once?

_ _ _ I I

Bring up the rear?

_ O O _

Scratch post?

_ I _

Varieties of clues

Straight definition: Most crossword clues are simple definitions of their answers. They need not be as dry as a dictionary definition, though.

Alliteration or rhyme: Clues can use alliteration or rhyme to avoid monotony.

Fill-in-the-blank: Some entries can only be clued with a fill-in-the-blank phrase.

Trivia: Solvers enjoy learning new things, so an interesting fact that can clue a common answer in a fresh way is usually welcome.

Punny or tricky: A question mark often indicates that the solver needs to view a clue in a non-standard way to solve it. See the Clue Solving Activity at the left.

Humorous: Solvers welcome offbeat clues to words. The answer ELOPE can be clued as “Take the honey and run” or “Choose the window instead of the aisle?”

Things to avoid in clues

Don't have too many tricky clues in a puzzle. Two or three is enough.

Don't have too many one-word clues. They sound boring.

Don't use fill words in your clues.

Don't write clues in a way that will become dated.

Clue Writing Activity

Choose some words from the corner fills you created on the previous page.

Write two or three clues for each word.

Try to write clues of different varieties or difficulty levels for the same word.

Publication

If you want a puzzle to be published in a newspaper or magazine, you will need to submit it either via e-mail or regular mail to an editor. Payment varies depending on the publication.

New York Times

Will Shortz
New York Times
229 West 43rd St.
New York, NY 10036
15 x 15: \$135
21 x 21: \$700

New York Sun

Peter Gordon
xwords@optonline.net
15 x 15: \$136

Los Angeles Times

Rich Norris
164 Fairway Drive
Carmel, NY 10512
15 x 15: \$60
21 x 21: \$250

Games Magazine

Crossword Editor
P.O. Box 184
Fort Washington, PA 19034
15 x 15: \$50
17 x 17: \$100
21 x 21: \$200

Answers to Activities

Grid Activity (page 2)

- A. Four squares do not have both Across and Down words going through them.
B. There are four 2-letter entries.
C. The diagram does not have 180-degree symmetry.
D. The diagram has 80 entries. The maximum word count for this puzzle size is typically 78 entries.

Clue Solving Activity (page 4)

SANTACLAVIS, SLIDERULE,
ENDGAMES, SNEEZES, ERASES,
RADII, MOON, ATM

Submitting puzzles to editors

Different editors have different requirements for manuscript submissions. Refer to the style sheet information and mailing addresses available at www.cruciverb.com.

If you are submitting manuscript, clues and answers need to be presented in a large font, double-spaced.

The time between submission and response can be as little as a week or as much as six months.

Clues are very often rewritten by editors, usually to adjust the difficulty level. Anywhere from 25% to 75% of the clues may be changed.

The theme or fill of a puzzle is very rarely changed, although sometimes an editor will ask you to rework an area of a puzzle and re-submit it.

Software

Crossword Compiler (Windows)

<http://www.xword.com>

Cruciverbalist (Macintosh)

<http://members.aol.com/westpolesf/cruciv.html>

Across Lite

<http://www.litsoft.com>

Books

Matt Gaffney. *Gridlock*. ISBN: 1-560-25890-X

Will Shortz. *Wordplay*. ISBN: 0-312-36403-2

Marc Romano. *Crossworld*. ISBN: 0-767-91757-X

Patrick Berry. *Crossword Puzzle Challenges for Dummies*. ISBN: 0-764-55622-3

Coral Amende. *The Crossword Obsession*. ISBN: 0-425-18157-X

Stan Kurzban and Mel Rosen. *The Compleat Cruciverbalist*. ISBN: 0-442-25738-4

Internet Links

Cruciverb — crossword constructor community center

<http://www.cruciverb.com>

Puzzle Pointers — links to free daily puzzles

<http://www.fleetingimage.com/wij/xyzy/nyt-links.html>

New York Times Crossword Forum — online discussion of NYT puzzles

<http://forums.nytimes.com>

Cryptics Monthly — online magazine of cryptic puzzles

<http://www.crypticsmonthly.com>