This article responds to the challenge posed by Susan Thorpe on page 212 of the August 2001 issue of Word Ways. We seek a word that still produces valid words when the first letter is replaced by A, and when the second letter is replaced by B, etc. However, much of this article is taken up with two generalisations. The first is to examine other word lengths. In the second, we depart from the concept of invariance, in which the position of a letter in the word is the same as its position in the alphabet, and merely require that successive positions in the words be occupied by successive letters of the alphabet. All words are in the OED or Webster 2, except those marked Ch (Chambers), EDD (English Dialect Dictionary), Lo (Longman), OSPD (Official Scrabble Players Dictionary), Pull (Pulliam). Pname = personal name, and vf= OED variant form.

4-letter words
Firstly, I respond directly to her challenge:

**ABCD**: ORAS  ARAS, OBAS, ORCS, ORAD
       ORES  ARES, OBES, ORCS, ORED (Susan Thorpe example)
       OWLE (vf) AWLE, OBLE, OWCE (vf), OWLD
       SPAC (vf) APAC (phrase?), SBAC, SPCC (acronym), SPAD
       USEL  ASEL, UBEL (German übel, whence evil), USCL (United Society for Christian Literature), USED

Next, I looked for similar sets of words, but with BCDE, CDEF, etc. in place of ABCD. The numbers of examples found (notice the zero counts!) were A 5, B 37, C 11, D 157, E 8, F 1, G 3, H 26, I 1, J 28, K 77, L 9, M 37, N 5, O 0, P 2, Q 16, R 16, S 1, T 39, U 0, V 31, W(XYZ) 1.

Tackling the difficult ones first (which will yield some awkward answers):

**FGHI**: WELY  FELY (vf), WGLY (vf), WEHY, WELI (Pull)
        GHIJ: CLUB  GLUB, CHUB, CLIB, CLUJ (Web3)
        CLUM (Pull) GLUM, CHUM, CLIM, CLUJ (Web3)
        CLUT (vf) GLUT, CHUT, CLIT, CLUJ (Web3)
        IJKL: ASEE  I SEE, AJEE, ASKE, ASEL
        PQRS: SAAT (vf) PAAT (vf), SQAT (vf), SART, SAAS (EDD)
        SEAT  PEAT, SQAT (vf), SERT, SEAS
        WXYZ:ONES WNES, OXES (OSPD), ONYS, ONEZ

Now a small selection from the ones with most answers:

**DEFG**: BANT  DANT, BENT, BAFT, BANG
        GIRT  DIRT, GERT (vf = great, or pname), GIFT, GIRG
        GONE  DONE, GENE, GOFE, GONG
        HANT  DANT, HENT, HAFT, HANG
        KANT  DANT, KENT (whale blubber), KAFFT (Swedish, whence kaft), KANG

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Finally, some examples with other alphabetic sequences having some everyday words:

**HIJK:**
- **MANA**
  - HANA (Old English, a cock), MINA, MAJA, MANK
- **MARO**
  - HARO, MIRO, MAJO, MARK
- **PUNA**
  - HUNA (in Highlands), PINA, PUJA, PUNK
- **RACE**
  - HACE, RICE, RAJE, RACK

**KLMN:**
- **ARAS**
  - KRAS, ALAS, ARMS, ARAN (adj)
- **COOP**
  - KOOP (Pull), CLOP, COMP, COON
- **GAIE**
  - KAIE, GLIE, GAME, GAIN
- **POOP**
  - KOOP (Pull), PLOP, POMP, POON

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- **ARAS**
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**6-letter words**

Examples here are much scarcer, and use mainly obsolete words; there are single examples for BCDEF and HIJKL, and five for DEFGH:

**BCDEF:**
- **SARIE**
  - BARIE, SCRIE, SADIE (p-name), SAREE, SARIF

**HIJKL:**
- **MARAS**
  - HARAS (Pull), MIRAS (Lo), MAJAS, MARKS, MARAL

**DEFGH:**
- **BARTE** (Ch)
  - DARTE (vf), BERTE, BAFTE (vt), BARGE, BARTH
- **LINTE** (vf)
  - DINTE (vf), LENTE (vf), LITE (vf), LINGE, LINTH (vf)
- **LOUTE** (vf)
  - DOUTE (vf), LEUTE (vf), LOFTE (vf), LOUGE (vf), LOUTH (in Lincolnshire)
- **LYNTE** (vf)
  - DYNTE, LENTE, LYFTE, LYNGE, LYNTH (all vf)
- **SIETE** (vf)
  - DIETE (vf), SEETE, SIFTE (vf), SIEGE, SIETH

**5-letter words**

Examples here are much scarcer, and use mainly obsolete words; there are single examples for BCDEF and HIJKL, and five for DEFGH:

**BCDEF:**
- **SARIE**
  - BARIE, SCRIE, SADIE (p-name), SAREE, SARIF

**HIJKL:**
- **MARAS**
  - HARAS (Pull), MIRAS (Lo), MAJAS, MARKS, MARAL

**DEFGH:**
- **BARTE** (Ch)
  - DARTE (vf), BERTE, BAFTE (vt), BARGE, BARTH
- **LINTE** (vf)
  - DINTE (vf), LENTE (vf), LITE (vf), LINGE, LINTH (vf)
- **LOUTE** (vf)
  - DOUTE (vf), LEUTE (vf), LOFTE (vf), LOUGE (vf), LOUTH (in Lincolnshire)
- **LYNTE** (vf)
  - DYNTE, LENTE, LYFTE, LYNGE, LYNTH (all vf)
- **SIETE** (vf)
  - DIETE (vf), SEETE, SIFTE (vf), SIEGE, SIETH

**6-letter words**

Examples here are much scarcer, and use mainly obsolete words; there are single examples for BCDEF and HIJKL, and five for DEFGH: