thematicpuzzle [en]

Present a horizontal 'puzzle',
with different themes.

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A B C D E F G H

Angry Python Cool Apple Battery

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1 Introduction

1.1 Description

With this package, it is possible to create a *horizontal banner*, in the form of a puzzle, with different themes.

The styles are *globally* fixed, but it is possible to configure:

- colors;

- icons;

- labels.

The interior *borders* are randomly oriented to the left or to the right, and the code takes care of coloring (if applicable) the parts satisfactorily.

1.2 Decorations

For the moment, the *decorations* of the parts must be declared as characters, for example with icons from the `fontawesome5` package (loaded by the package).

Ultimately, it may be possible to insert images or Ti*k*Z codes, this is one of the areas for improvement.

1.3 Loading

To load the package, simply add in the preamble :

```
\usepackage{thematicpuzzle}              %with fa5, default
\usepackage[fa6]{thematicpuzzle}         %with fa6 (test)
```

The useful and loaded packages are:

- `tikz`, `fontawesome` et `xintexpr` ;

- `simplekv`, `listofitems` et `xstring`.

1.4 History

```
0.1.2: Bugfix + pre-compatibility with fa6
0.1.1: Enhancements for colors
0.1.0: Initial release
```

2 The macro

2.1 General usage, keys and options

In order to create a *theme puzzle*, the command is:

```
%----thematic puzzle
\ThematicPuzzle[keys]<tikz options>{decoration list}
```

The keys, optional and between `[...]`, are:

- `Thickness` := thickness of the lines (`1pt` by default);

- `Scale` := global scale of the figure (`1` by default);

- `BgColors` := background color(s) (see paragraph on colors);

- `BorderColor` := color(s) of the borders (`black` by default);

- `Labels` := (optional) labels of the themes (`{}` by default);

- `ScaleLabels` := label scale (`1.15` by default);

- `FontLabels` := label font (`\tiny\sffamily` by default);

- `IconsColor` := color of icons and labels (`black` by default).

The optional argument, between `<...>`, corresponds to specific options (in TikZ language) to pass to the created environment.

The obligatory argument, between `{...}`, corresponds to the list of decorations (in the form of *characters*) of the different puzzle pieces, within form `{deco<1>,deco<2>,...,deco<n>}`
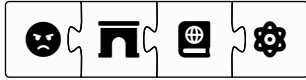
2.2 The colors of the boxes

Concerning the color of the boxes, it's the key `BgColors` which is in charge.
It can work in several ways:
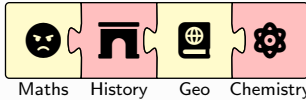
- by default it is empty, which does not color the boxes ;

- it can be given in a single form, via `BgColors=mycolor`, in which case all the boxes are of the same color;

- we can give it in the form of a list `BgColors={mycolorA,mycolorB,...}` and:

  - in the case where the number of colors is sufficient, they are used one after the other;

  - otherwise, the code takes care of *repeating* the pattern of the proposed colors.
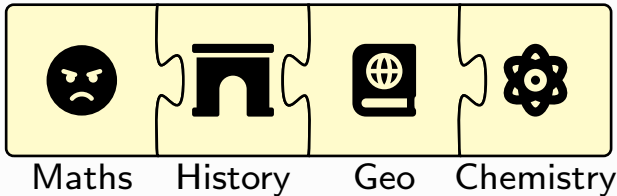
2.3 Examples

```
\ThematicPuzzle{\faAngry,\faArchway,\faAtlas,\faAtom}
```
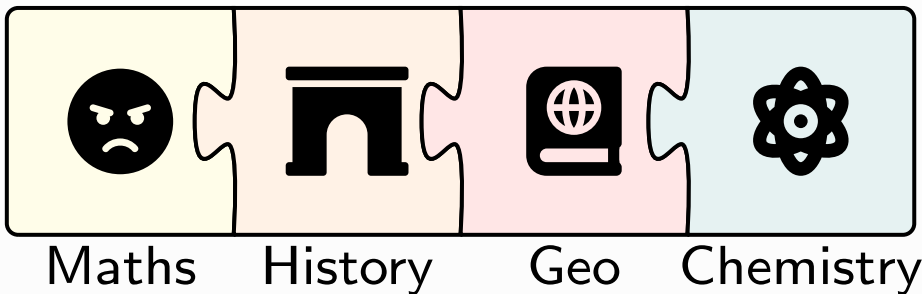


```
\ThematicPuzzle[Labels={Maths,History,Geo,Chemistry},BgColors={yellow!25,red!25}]%
  {\faAngry,\faArchway,\faAtlas,\faAtom}
```



```
\ThematicPuzzle%
  [Scale=2,BgColors=yellow!25,Labels={Maths,History,Geo,Chemistry}]%
  {\faAngry,\faArchway,\faAtlas,\faAtom}
```



```
\ThematicPuzzle%
  [Scale=3,BgColors={yellow!10,orange!10,red!10,teal!10},
  Labels={Maths,History,Geo,Chemistry}]%
  {\faAngry,\faArchway,\faAtlas,\faAtom}
```



```
\ThematicPuzzle%
  [Thickness=2pt,Scale=1.25,
  BgColors={yellow!10,orange!10,red!10,teal!10,purple!10,gray!10},
  IconsColor=teal!50!black]%
  {P,Y,T,H,O,N}
```