

thematicpuzzle [en]

Present a horizontal 'puzzle',
with different themes.

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<https://github.com/cpierquet/latex-packages/tree/main/thematicpuzzle>



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 TikZ 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)
\usepackage[fa7]{thematicpuzzle}      %with fa7 (test)
\usepackage[nofa]{thematicpuzzle}     %w/o fa (test), manually loading
```

The useful and loaded packages are:

- `tikz`, `fontawesome5` et `xintexpr`;
- `simplekv`, `listofitems` et `xstring`.

1.4 History

0.1.3: Bugfix + pre-compatibility with fa5/6/7
0.1.2: Bugfix + pre-compatibility with fa5/6
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

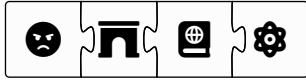
Concerning the color of the boxes, it's the key **BgColors** which is in charge.

It can work in several ways:

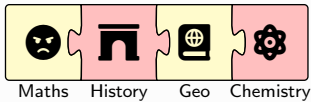
- by default it is empty, which does not color the boxes;
- it can be given in a single form, via **BgColors=mycolor**, in which case all the boxes are of the same color;
- we can give it in the form of a list **BgColors={mycolorA,mycolorB,...}** and:
 - in the case where the number of colors is sufficient, they are used one after the other;
 - otherwise, the code takes care of *repeating* the pattern of the proposed colors.

2.3 Examples

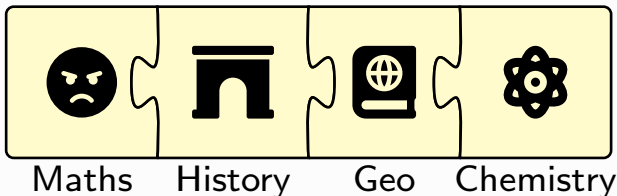
```
\ThematicPuzzle{\faAngry,\faArchway,\faAtlas,\faAtom}
```



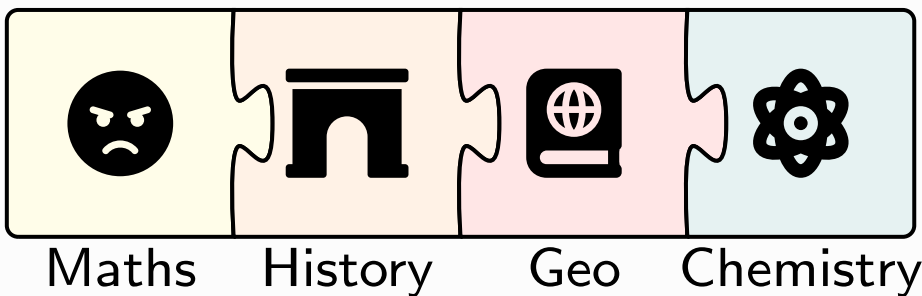
```
\ThematicPuzzle[Labels={Maths,History,Geo,Chemistry},BgColors={yellow!25,red!25}]{\faAngry,\faArchway,\faAtlas,\faAtom}
```



```
\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}
```

