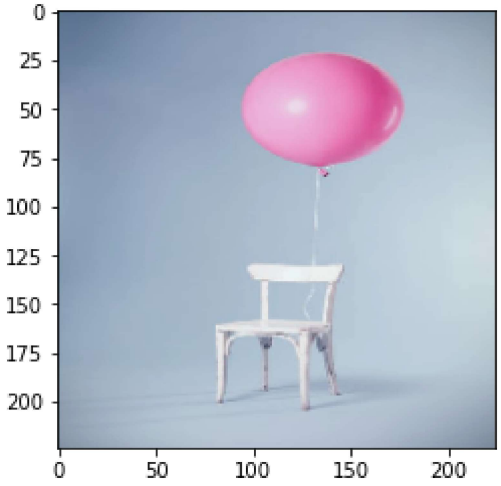
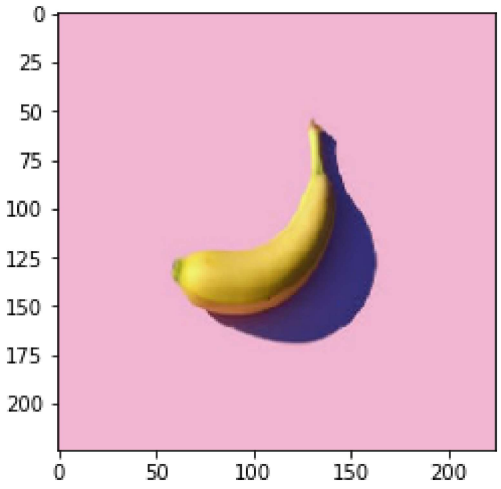
In [35]:
```
from tensorflow.keras.applications.resnet50 import ResNet50
from tensorflow.keras.preprocessing import image
from tensorflow.keras.applications.resnet50 import preprocess_input, decode_pr
edictions
import numpy as np
from pathlib import Path
import os
import matplotlib.pyplot as plt

current_dir = Path(os.getcwd()).absolute()
image_dir = current_dir.joinpath('images')
model = ResNet50(weights='imagenet')
```

In [46]:
```
imagelist = []
originalimages = []
fnames = ['{}.jpg'.format(i) for i in range(1,16)]
for fname in fnames:
    img_path = image_dir.joinpath(fname)
    img = image.load_img(img_path, target_size = (224, 224))
    x = image.img_to_array(img)
    originalimages.append(x)
    x = np.expand_dims(x, axis = 0)
    x = preprocess_input(x)
    imagelist.append(x)
#img_path = image_dir.joinpath('1.jpg')
#img = image.load_img(img_path, target_size=(224, 224))
#x = image.img_to_array(img)
#x = np.expand_dims(x, axis=0)
#x = preprocess_input(x)
```

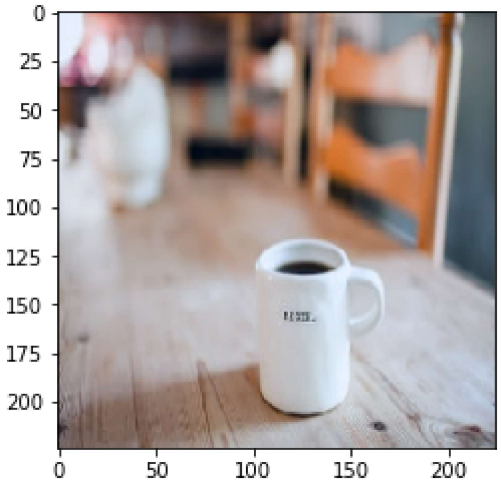
In [48]:
```
counter = 1
for x in imagelist:
    preds = model.predict(x)
    plt.imshow(image.array_to_img(originalimages[counter - 1]))
    plt.show()
    print('Image: ', counter, '\nPredicted:', decode_predictions(preds, top=3)
[0])
    counter += 1
```



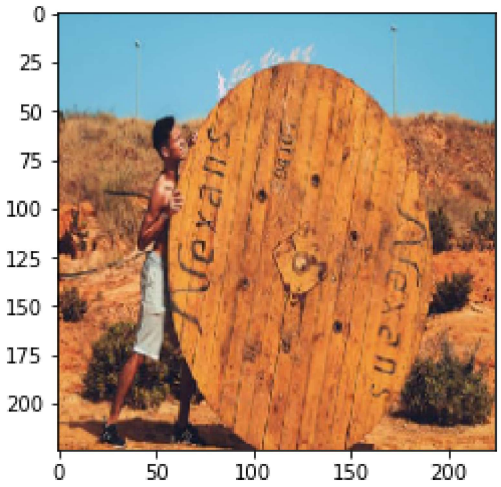
```
Image:  1
Predicted: [('n04380533', 'table_lamp', 0.31780186), ('n04286575', 'spotligh
t', 0.15779033), ('n02782093', 'balloon', 0.110443205)]
```



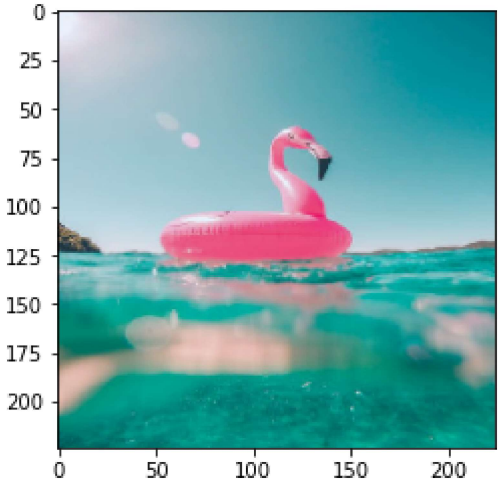
```
Image:  2
Predicted: [('n07753592', 'banana', 0.9045903), ('n07753113', 'fig', 0.032914
113), ('n03825788', 'nipple', 0.013924638)]
```



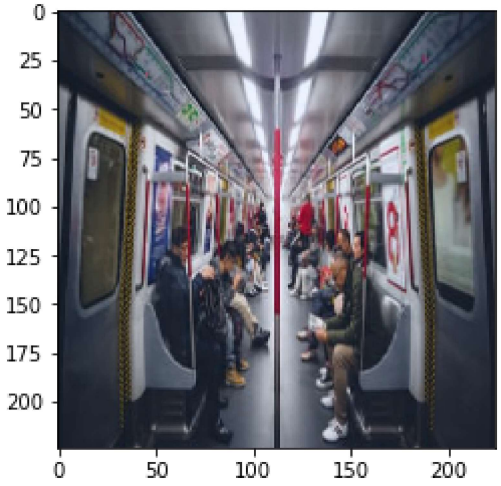
```
Image:  3
Predicted: [('n03063599', 'coffee_mug', 0.44972172), ('n07930864', 'cup', 0.1
8666108), ('n03063689', 'coffeepot', 0.06506186)]
```



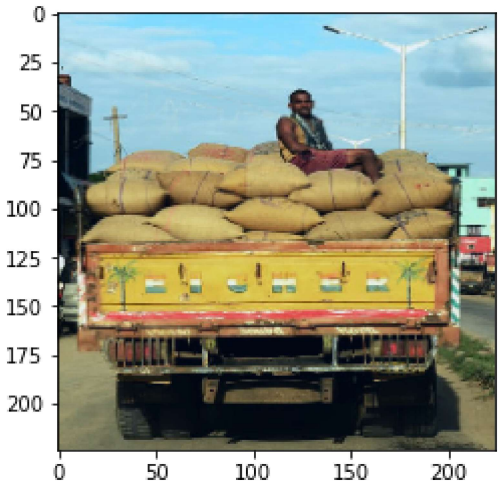

```
Image:  4
Predicted: [('n09246464', 'cliff', 0.26186824), ('n07802026', 'hay', 0.190100
85), ('n02437312', 'Arabian_camel', 0.047459334)]
```



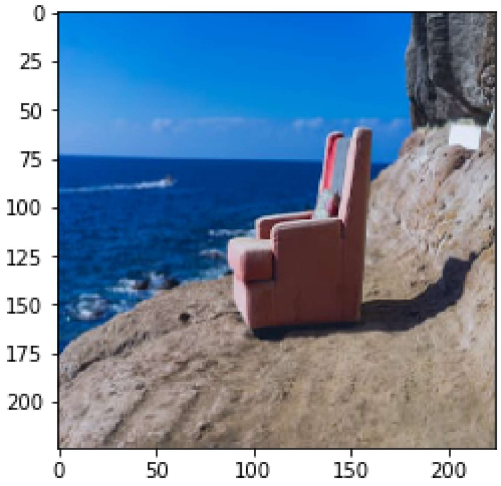

```
Image:  5
Predicted: [('n03888257', 'parachute', 0.6755094), ('n04507155', 'umbrella',
0.12929335), ('n04251144', 'snorkel', 0.06127682)]
```



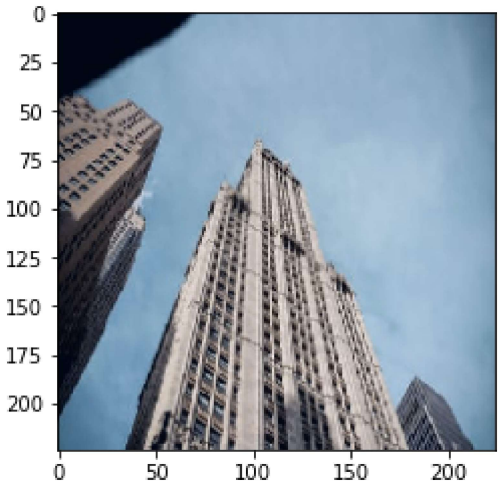
```
Image:  6
Predicted: [('n03902125', 'pay-phone', 0.70799893), ('n03895866', 'passenger_
car', 0.19764568), ('n04310018', 'steam_locomotive', 0.011917992)]
```



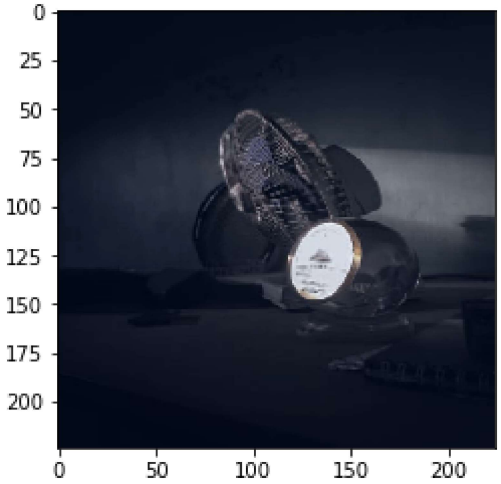
```
Image:  7
Predicted: [('n03417042', 'garbage_truck', 0.6929844), ('n04467665', 'trailer
_truck', 0.18767954), ('n03796401', 'moving_van', 0.02945862)]
```



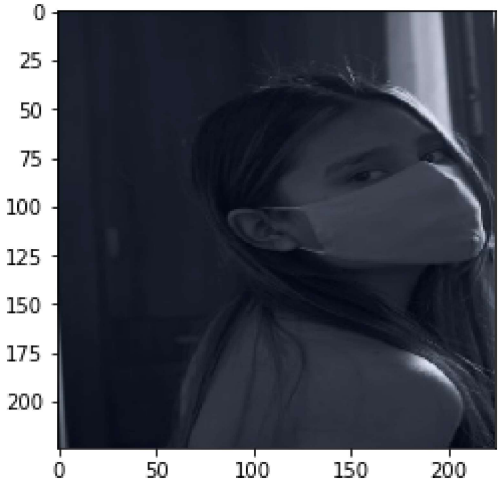
```
Image:  8
Predicted: [('n09246464', 'cliff', 0.45902005), ('n03874599', 'padlock', 0.06
23266), ('n03532672', 'hook', 0.05590329)]
```



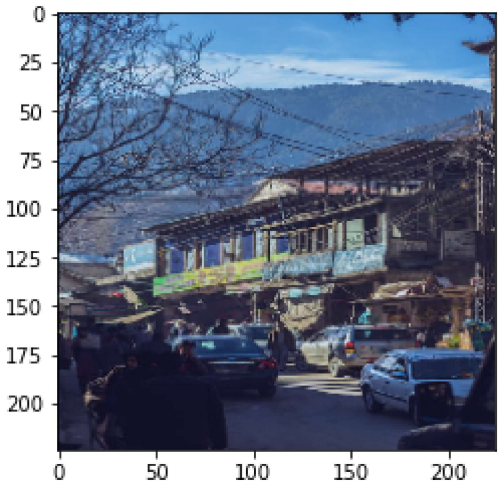

```
Image:  9
Predicted: [('n02692877', 'airship', 0.119691305), ('n03697007', 'lumbermil
l', 0.0879002), ('n04325704', 'stole', 0.06450276)]
```



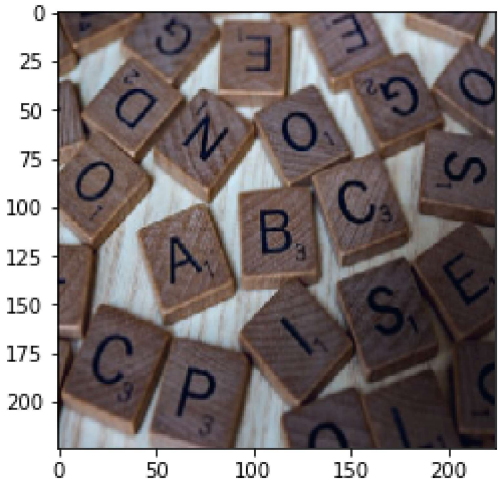

```
Image:  10
Predicted: [('n02787622', 'banjo', 0.23850511), ('n04286575', 'spotlight', 0.
10129654), ('n04120489', 'running_shoe', 0.081049435)]
```



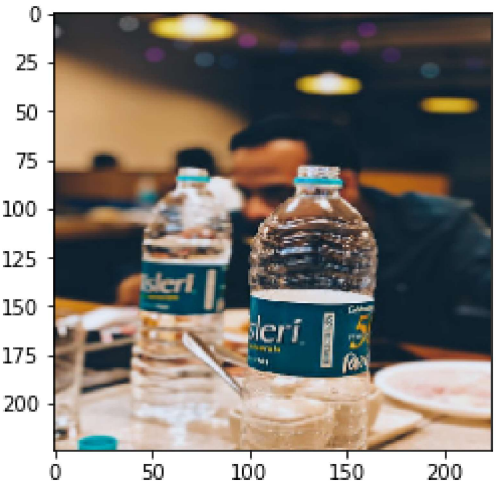
```
Image:  11
Predicted: [('n04356056', 'sunglasses', 0.23572293), ('n03045698', 'cloak',
0.0995172), ('n04355933', 'sunglass', 0.057990294)]
```



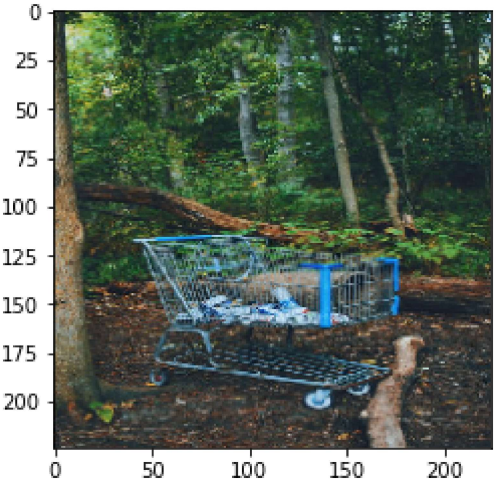
```
Image:  12
Predicted: [('n03781244', 'monastery', 0.1219733), ('n09332890', 'lakeside',
0.116727434), ('n03461385', 'grocery_store', 0.08198331)]
```



```
Image:  13
Predicted: [('n03733281', 'maze', 0.30229056), ('n03717622', 'manhole_cover',
0.21874614), ('n03075370', 'combination_lock', 0.074334614)]
```



```
Image:  14
Predicted: [('n04557648', 'water_bottle', 0.99816185), ('n03983396', 'pop_bot
tle', 0.001427503), ('n03461385', 'grocery_store', 0.00010438601)]
```



```
Image:  15
Predicted: [('n04204347', 'shopping_cart', 0.9998627), ('n04204238', 'shoppin
g_basket', 0.00012584552), ('n03891251', 'park_bench', 8.735644e-06)]
```

In [28]:

```
Predicted: [('n07753592', 'banana', 0.9045903), ('n07753113', 'fig', 0.032914
113), ('n03825788', 'nipple', 0.013924638)]
```

In [ ]: